

Fernando Zúñiga and Denis Creissels (Eds.)

Applicative Constructions in the World's Languages

Comparative Handbooks of Linguistics

Edited by
Andrej Malchukov and Edith Moravcsik

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Fernando Zúñiga and Denis Creissels

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Part I: **General chapters**

Fernando Zúñiga and Denis Creissels

1 Applicative constructions: An introductory overview

Abstract: This chapter presents and contextualizes the definition of applicative constructions used in the present book. (Although our definition is conservative in several respects, it is broader than some alternative definitions and narrower than others; in particular, we argue that a number of similar constructions are best regarded as look-alikes rather than as types of applicatives.) The chapter also surveys the main morphological, syntactic, and semantic parameters of variation of applicatives identified in the previous literature, and outlines the structural characteristics of the applicatives of Classical Nahuatl, the language for which the term was first used. Lastly, we provide a roadmap for the book and comment on its coverage and coherence.

1 Introduction

This chapter introduces the terminological and analytical prerequisites for the study of the phenomena at the center of attention in the present book. After this brief roadmap, Section 1 presents not only the definition of applicative constructions employed here but also the characteristics of several constructions that show both important similarities and crucial differences to them. Sections 2 through 4 survey the known variation of applicative constructions regarding morphology, syntax, and semantics, respectively. Section 5 outlines the applicatives of Classical Nahuatl, the language for whose description the term was first used. We have included this not only to show how multi-faceted applicativization can be, even in one single language, but also to prepare the reader for the kind of content and structure they will encounter in most of the chapters of the book. Section 6 presents the historical background of the term **APPLICATIVE** and discusses some relevant aspects of its present-day usage. Lastly, Section 7 comments on the structure, the scope, and the coherence of the book as a whole.

Acknowledgments: We are indebted to Peter Arkadiev, Donna Gerdts, and Monica Macaulay for their comments on the position paper that evolved into this chapter, as well as to the series editors for their comments on a previous version of the chapter. Many thanks also go to Drew Hancock-Teed, Jean Rohleder and especially Kevin Negele for their valuable help with the formatting of many chapters of the book.

1.1 Applicatives defined

An **APPLICATIVE CONSTRUCTION** (henceforth: AC) is defined here in opposition to a **BASE CONSTRUCTION** (henceforth: BC) with respect to several formal features, including those of one particular constituent of the former that bears a non-agentive semantic role, namely the **APPLIED PHRASE** (henceforth: AppP; see also Creissels, forthcoming). Example (1) from a Tlacolula Valley Zapotec variety illustrates such an opposition with a clause pair that most present-day linguists consider an instance of applicativization. In (1a), the co-Agent *Jwaany* ‘John’ is the AppP, an argument in P role of the clause headed by the applicativized verb ‘sing with’. The same participant is expressed as an optional adjunct (*cěhnn Jwaany* ‘with John’) in (1b), where the verb is in its base, non-derived, form and simply means ‘sing’:

- (1) San Lucas Quiaviní Zapotec (Zapotecan; Munro 2000: 285–286, glosses adapted)
- a. *B-iì'lly-nèe Gye'eihlly [Jwaany]*.
 PERF-sing-APPL M. J.
 ‘Mike sang with John.’ (AC)
 - b. *B-iì'lly Gye'eihlly [cěhnn Jwaany]*.
 PERF-sing M. with J.
 ‘Mike sang with John.’ (BC)

This conforms to the following definition, which we use in the present chapter and in the rest of the book:

The base construction (BC) and the applicative construction (AC) are related as follows:

- i) The predicates in both constructions are built upon the same root, but the one in the AC bears additional overt marking that distinguishes it from the one in the BC.
- ii) The participant encoded as S or A in the BC appears as S or A in the AC.
- iii) The AC includes a noun phrase in a role other than S or A, the applied phrase (AppP), which refers to a participant that either requires a non-core coding in the BC different from its coding in the AC or cannot be expressed at all in the BC.

We follow mainstream usage whenever there is no potential confusion and employ the term **APPLICATIVE** as shorthand for either an applicative construction (e.g., the whole clause in [1a]) or an applicative marker (e.g., the verbal suffix *-nèe* in [1a]).

One morphological feature of ACs, namely the marking asymmetry between the predicates, is treated disparately in the literature: it is an almost constant hallmark of ACs in functional-typological studies but not a criterial feature in some strands of formalist studies (see § 6.2). Other features of ACs, like their productivity, morphological regularity, and semantic predictability, are typically assumed to be present but rarely characterize the construction per se. Periphrastic constructions can be subsumed under our definition insofar as they show evidence of monoclausality. Nevertheless, as with

other periphrastic voices (see, for instance, the abundant literature on periphrastic causatives), it may be difficult to draw the line between a bona fide periphrastic applicative and a biclausal construction that is merely the translational equivalent of an AC.

One syntactic feature of ACs, namely the syntactic status of the constituents corresponding to the same referent in the different constructions, shows variation that is entwined with the defining traits of the construction and is addressed in Sections 1.2 and 3. Our definition uses the syntactic roles S and A; they correspond to the single essential argument of (a major subclass of) monovalent predicates and to the agentive argument of prototypical bivalent predicates, respectively. The other three roles used in our model of syntax are A's patientive counterpart P (i.e., a direct or primary object), a "dative role" D found with trivalent predicates and indirective alignment (i.e., an indirect object), and an ordinary oblique role X; these non-S/A roles are addressed in the context of applicativization in Section 3.1. All these comparative concepts used in alignment typology are understood here as in what Haspelmath (2011) calls the "Comrian approach" (Comrie 1989; Lazard 1994; Creissels 2006); specifically, A and P are "syntactic terms whose prototypes are defined in semantic terms" (Comrie 1989: 111). We use terms like *SUBJECT* and *OBJECT*, which refer to language-and-construction-particular alignment patterns, only language-specifically.

Applicativization is a subtype of verb-coded valency alternation: more specifically, several of its subtypes are special cases of *NUCLEATIVIZATION*, that is, an operation that allows participants not encoded as core terms in the base construction to be encoded as such in the derived construction. We elaborate on this contextualization in Section 6, after reviewing the variation of applicatives in Sections 2 through 4.

1.2 What applicatives are not: Lookalikes

Applicative lookalike constructions (henceforth: ALC) are either syntactically or morphologically similar to true ACs. We discuss them in turn in what follows.

1.2.1 Syntactic lookalikes

Pairs of constructions whose syntactic make-up conforms to the above definition of an AC-BC pair, but whose morphology does not, come in several types, depending on the formal relationship holding between the predicates of the two constructions involved (Comrie et al. 2015; Creissels, forthcoming). The alternation between the predicates of both clauses can be coded or uncoded, and asymmetrical or symmetrical. Table 1 summarizes the possibilities; the numbered examples provided further down are cross-referenced in the table. Applicativization appears in the upper left-hand cell; the alternations listed in the other cells correspond to different syntactic lookalike types.

Table 1: Morphological marking of ACs and syntactic lookalikes.

	CODED (“VOICE”)	UNCODED
ASYMMETRICAL	Privative marking: Applicativization (1)–(2)	—
SYMMETRICAL	– Suppletivism (3) – Equipollent marking (4)	Flexivalency (5)–(9)

The applicatives discussed in the functional-typological literature typically correspond to the PRIVATIVE-MARKING alternation type, in which the AC predicate shows higher morphological complexity than the BC predicate—more precisely, an element analyzable as an applicative marker, which in turn leads to a voice alternation.¹ Examples (1) above and (2) below illustrate such an opposition:²

- (2) Boumaa Fijian (Oceanic; Dixon 1988: 45)
- a. *E-la'o-va a suka a marama.*
 3SG.SBJ-go-APPL DEF sugar DEF woman
 ‘The woman is going for sugar.’ (AC)
- b. *E-la'o a marama.*
 3SG.SBJ-go DEF woman
 ‘The woman is going.’ (BC)

By contrast, the SUPPLETIVE alternation type consists in the predicates showing a formal difference that cannot be analyzed as a particular instance of some regular pattern. Instead of arbitrarily postulating a transitivizing (= applicativizing) or detransitivizing (= antipassivizing) “suppletive derivation”, it seems best to treat such pairs as simply alternating. (The abbreviation in inverted commas “BC” here and elsewhere signifies that that construction is the equivalent of the base construction if its counterpart were an applicative.) The following example illustrates this case:

- (3) Akhvakh (Northeast Caucasian; p.k.)
- a. *Riḷ'i q'am-a!*
 meat eat-IMP
 ‘Eat some/the meat!’ (ALC)

¹ Since it is not a syntactic lookalike of applicativization, we are glossing over the latter’s mirror image here, namely antipassivization (where the undirected predicate is morphologically more complex than its directed counterpart, as in Mandinka *dómó-rì* ‘eat [INTR]’ vs. *dómò* ‘eat [TR]’). See Creissels (forthcoming: Ch. 10) for more details.

² The marker *-va* can have other functions in Fijian, but we gloss polysemous markers in this chapter according to their function in the example under discussion. The same applies to Indonesian *-kan* in (40)/(43)/(44), for instance, which can also function as a causative.

- b. *Ūk-a!*
eat-IMP
'Eat!' ('BC')

In other cases, the predicates in both clauses also show the same number of morphemes, but neither predicate is zero-marked for voice; rather, they are EQUIPOLLENTLY MARKED; the predicates themselves are not unmarked, but the alternation is not morphologically oriented (i.e., the marking of the predicates provides no evidence that one of the constructions is basic and the other one derived). For instance, in (4), both predicates take a so-called final suffix: the “benefactive” transitive animate *-o* in (4a) and the animate intransitive *-aa* in (4b).³ (Note that the argument to analyze the verb stem ending in *-o* as somehow derived from any of the related verb stems is semantic, or possibly syntactic, rather than morphological.⁴ Compare this formal opposition to the Blackfoot applicative *-omo* in [31].)

- (4) Blackfoot (Algonquian; Frantz 2009: 102, glosses adapted)
- a. *Iihpómm-o-yii-wa-áyi* *ónnikis-i*
PST.buy-TA-DIR-3SG.PROX-3SG milk-NSPEC
'S/he bought (some) milk for him/her.' (ALC)
- b. *Iihpómm-aa-wa* *ónnikis-i*
PST.buy-AI-3SG.PROX milk-NSPEC
'S/he bought (some) milk.' ('BC')

With the last valency alternation type, both predicates show the same degree of morphological complexity (i.e., neither predicate is marked for voice), and instead of an applicative voice alternation there is a FLEXIVALENCY ALTERNATION (Martin Haspelmath, p.c.; Creissels, forthcoming: Ch. 15; Heidinger 2019 uses the related term “polyvalency” instead). PREDICATE LABILITY—more precisely: ambitransitivity—can be either weak or strong (Creissels 2014). With the former, the alternating clauses differ formally only with respect to the presence vs. absence of an argument NP (e.g., *Evan drinks tea* vs. *Evan drinks*). With the latter, the alternating clauses differ formally in other respects as well (most notably, in the coding of the shared argument NP in both clauses; e.g., *Gareth*

3 *Ónnikii* ‘(some) milk’ is a secondary object in both the AC and the BC—a grammatical relation that does not trigger indexing on the verb; the suffix *-wa* indexes the subject in both clauses. Primary objects appear indexed on the verb when non-3rd-person (but the 3rd-person AppP in [4a], an instance of such a primary object, is visible only via the direct marker *-(y)ii*, which implicitly signals syntactic transitivity). The 3sg index *-áyi* refers to the primary object, but the conditions governing its appearance are unconnected to applicativization (see Frantz 2009: Ch. 9).

4 There are four related verb stems meaning ‘buy’ in Blackfoot, namely animate intransitive (AIO) *ohpomm-aa* ‘buy (things)’, transitive inanimate (TI) *ohpomm-atoo* ‘buy (inanimate)’, and two transitive animate (TA) stems, namely *ohpomm-at* ‘buy (animate)’ and *ohpomm-o* ‘buy (things/inanimate/animate) for (animate)’.

broke the vase vs. *the vase broke*). In the case of weak lability, as in the English conative alternation (5) and benefactive alternation (6), the only formal difference between both clauses is the syntactic asymmetry regarding the phrase expressing the non-agentive participant (and its flagging).

- (5) English (Germanic; Levin 2015: 64)
- a. *Kelly kicked the intruder.* (ALC)
 - b. *Kelly kicked (at the intruder).* (“BC”)
- (6) English (p.k.)
- a. *Alun baked Gwen cookies.* (ALC)
 - b. *Alun baked cookies (for Gwen).* (“BC”)

Something analogous is found in the German dative alternation in (7), where the 2nd-person indirect object *dir* ‘(to) you’ (7a) contrasts with the oblique *an dich* ‘to you’ (7b), and in the English alternation in (8), where the non-agentive participant is an oblique in both clauses, albeit with different flagging (viz. *for* vs. *instead of*). In both instances, the verb remains unaltered:

- (7) German (Germanic; p.k.)
- a. *Ich schrieb dir den Brief.*
1SG.NOM wrote[1SG] 2SG.DAT ART.M.SG.ACC letter
‘I wrote you the letter.’ (ALC)
 - b. *Ich schrieb den Brief an dich.*
1SG.NOM wrote[1SG] ART.M.SG.ACC letter on/to 2SG.ACC
‘I wrote the letter to you.’ (“BC”)
- (8) English (p.k.)
- a. *Caitlín spoke up for the deputy.* (ALC)
 - b. *Caitlín spoke up instead of the deputy.* (“BC”)

In the case of strong lability, as in the Mandinka alternation in (9), there is also some marking difference between the clauses (here: the aspectual markers *yè* and *-tá*), but that difference does not relate the predicates derivationally to each other:

- (9) Mandinka (Mande; p.k.)
- a. *Díndíyò yè ń jélè.*
child.DEF COMPL.TR 1SG laugh
‘The child made fun of me.’ (ALC)
 - b. *Díndíyò jélè-tá.*
child.DEF laugh-COMPL.INTR
‘The child laughed.’ (“BC”)

1.2.2 Morphological lookalikes

Constructions whose morphological make-up corresponds to that of an AC, but some other features of which (e.g., systematicity or syntax) do not, also come in several types. Consider the overview in Table 2; the numbered examples provided further down are cross-referenced in the table.

Table 2: Main morphological lookalike subtypes.

CHARACTERISTIC		LABEL
Non-compositional meaning		Lexicalized applicatives (10)
No unmarked predicate		Applicative deponents (11)
No valency change	Semantic effect	Syntax-neutral intensification (12b)
	Pragmatic effect	Oblique registration (14b/d), (17), (18b)

First, verbal markers that applicativize some predicates can also irregularly and/or unproductively appear in so-called LEXICALIZED APPLICATIVES.⁵ Compare the semantic roles of the German direct object in the regular pair *steigen* ‘climb (INTR)’ vs. *besteigen* ‘climb (TR)’ with their counterparts in the irregular pairs in (10):

- (10) German (p.k.)
- | | |
|------------------------------------|--|
| <i>dürfen</i> ‘may, be allowed to’ | <i>bedürfen</i> ‘need, require’ (formal) |
| <i>kennen</i> ‘know (sb.)’ | <i>bekennen</i> ‘confess, admit’ |
| <i>kommen</i> ‘come’ | <i>bekommen</i> ‘receive’ |
| <i>schreiben</i> ‘write’ | <i>beschreiben</i> ‘describe’ |

Despite the suggestive morphology of the derived predicates, and perhaps even a syntax comparable to that of bona fide ACs, the semantics of such pairs is unpredictable. (See Zúñiga, Arkadiev, and Hegedűs, this volume, for more data and references regarding such German phenomena.)

Second, it is not uncommon to find APPLICATIVE DEPONENTS (also called *applicativa tantum*), that is, verbs that only occur with the marker that distinguishes base and applicativized versions of other verbs. For example, the following German *be*-prefixing verbs lack counterparts without that prefix:

- (11) German (p.k.)
- | | |
|---|------------------------|
| <i>beabsichtigen</i> ‘intend’ | * <i>absichtigen</i> |
| <i>beanspruchen</i> ‘claim, require, demand’ | * <i>anspruchen</i> |
| <i>bejahen</i> ‘affirm, approve’ | * <i>jahen</i> |
| <i>bewerkstelligen</i> ‘accomplish, put into execution’ | * <i>werkstelligen</i> |

⁵ See Pacchiarotti (2020: 104f) on the lexicalized “pseudo-applicatives” of Tswana in this context.

Third, the applicative-like marker can distinguish two related clauses without there being an applied phrase, that is, predicate derivation may not bring about valency modulation. Consider that it is cross-linguistically common for a given morphological element to fulfill distinct functions in a particular language. On the one hand, the element in question may be an applicative marker in constructions that fully meet the definition of applicative construction given above. On the other hand, a homophonous element may be found in constructions where its presence marks a term of the clause as prominent in one way or another, without affecting its coding, or the coding of any other term. Such constructions are like applicative constructions as conceptualized here in that both operate on non-nuclear participants (i.e., participants other than those coded as A, S, or P in the base construction), or on circumstantials (i.e., participants bearing peripheral semantic roles). They are unlike applicative constructions, however, in that they do not involve a valency alternation.

This phenomenon appears to come in at least two distinct guises. In the first, the contrast between the marked and unmarked clauses is semantic and orbits notions like aspect (e.g., completion, repetition, iteration, or continuativity) and manner (e.g., intensity, persistence, or excess). Such constructions might be called instances of SYNTAX-NEUTRAL INTENSIFICATION. The pair in (12) illustrates such a case, where the applicative marker *-ir* appears in both (12a) and (12b) accommodating the AppP ‘the children’, but the second instance of *-ir* in (12b) does not introduce another AppP:

- (12) Nyole (Bantu JE.35; Wicks 2006: 107)
- a. *Ba-hayuh-ir-a* *aba-ana*.
3.SBJ.II-shout-APPL-FV II-child
‘They shout at the children.’ (AC)
 - b. *Ba-hayuh-ir-ir-a* *aba-ana*.
3.SBJ.II-shout-APPL-ASP-FV II-child
‘They are always shouting at the children.’ (ALC on AC)

Compare this with (13), where the applicative *-ñma* introduces an AppP every time it is suffixed to the verb; there is one AppP in (9b) (*Kuan* ‘Juan’) and two AppPs in (9c) (*Kuan* ‘Juan’ and *tañi fotüm* ‘his son’):

- (13) Mapudungun (isolate; based on Salas 2006: 122)
- a. *Weñe-i* *waka*.
steal-IND[3.SBJ] cow
‘S/he stole a/the cow.’ (BC)
 - b. *Weñe-ñma-fi-i* *waka Kuan*.
steal-APPL-3.OBJ-IND[3.SBJ] cow J.
‘S/he stole a/the cow from Juan.’ (AC)

- c. *Weñe-ñma-ñma-fi-i* *waka Kuan tañi foṭüm.*
 steal-APPL-APPL-3.OBJ-IND[3.SBJ] cow J. 3.PSR son.of.man
 ‘S/he stole a/the cow from Juan’s son.’ (AC on AC)

The second kind of valency-neutral applicative-like marking serves a chiefly pragmatic purpose. For instance, in the following examples, *mó sifápáánòṅ* ‘on a cross’ is an adjunct in both (14a) and (14b); in the latter, however, the adjunct is focused and actually obligatory. Note that the same verb can occur with the applicative marker in an AC (14c), and even with both the applicative and the applicative-like focus marker stacked (14d):

- (14) Tswana (p.k.)
- a. *Dzísú ú-nè à-sw-á (mó sifápáánò-ṅ).*
 I.J. 3.SBJ.I-AUX 3.SBJ.I-die-FV LOC VII-cross-LOC
 ‘Jesus died (on a cross).’ (BC)
- b. *Dzísú ú-nè à-sw-él-à mó sifápáánò-ṅ.*
 I.J. 3.SBJ.I-AUX 3.SBJ.I-die-FOC-FV LOC VII-cross-LOC
 ‘Jesus died on a cross.’ (ALC)
- c. *Dzísú ú-nè à-rí-sw-él-à.*
 I.J. 3.SBJ.I-AUX 3.SBJ.I-1PL.OBJ-die-APPL-FV
 ‘Jesus died for us.’ (AC)
- d. *Dzísú ú-nè à-rí-sw-él-él-à mó sifápáánò-ṅ.*
 I.J. 3.SBJ.I-AUX 3.SBJ.I-1PL.OBJ-die-APPL-FOC-FV LOC VII-cross-LOC
 ‘Jesus died for us on a cross.’ (ALC on AC)

In order to avoid confusion in the discussion of markers that act as applicative markers in some of their uses only—as we did for the Nyole semantically-motivated clause alternation shown in (12)—we use the term **OBLIQUE-REGISTRATION CONSTRUCTION** for constructions involving verbal coding of the pragmatic prominence of an oblique without any change in the structure of the clause, like the one illustrated in (14). The term **REGISTERED OBLIQUE** can be used for the phrase whose pragmatic status is highlighted. (The alternative terms “oblique-highlighting construction” and “highlighted oblique”, respectively, could also be used.)⁶

⁶ An alternative terminology distinguishes “promotional applicativization proper” from “non-promotional registration applicativization” (see Hernández-Green 2016 for some references). Nevertheless, Nichols (1992) and many later studies use **REGISTRATION** in a different sense, according to which most default applicative markers are instances of registration (i.e., they do not express any features of the dependent—like person, gender, or number of the AppP—on the verbal head), as opposed to indexation (i.e., they do express some features of the dependent on the head). See also Pacchiarotti’s (2020) Type-D applicatives for Bantu in the context of valency neutrality.

Further consider Examples (15)–(17) below from three Mayan languages, where clauses with a fronted and focused constituent expressing a machete (bearing the semantic role of Instrument) and whose predicate takes the marker *-b'e* contrast with simple clauses with the machete as a postverbal adjunct (omitted here). In K'iche' (15), the result of the *b'e*-operation is an AC with the Instrument *ch'üich'* 'machete' promoted to primary object. In Tz'utujil (16), the resulting AC looks just like the one in (15), but the Instrument *machat* 'machete' is actually a secondary object (among other things, it is not cross-referenced on the verb). Lastly, in Kaqchikel (17), the result of *b'e*-suffixation is not applicativization, since the fronted participant is still an adjunct with instrumental marking (*rik'in*), despite the applicative-like verbal marking (see Mora-Marín 2003 for the individual analyses):

- (15) K'iche' (Mayan; Kaufman 1990: 78)

Ch'üich' k-Ø-in-rami-b'e-j lee chee'.
 machete INCOMPL-3SG.P-1SG.A-cut-APPL-TR DET wood
 'A machete is what I cut the wood with.' (AC)

- (16) Tz'utujil (Mayan; Dayley 1981: 27)

Machat x-in-re-ch'oy-b'e-ej.
 machete COMPL-1SG.P-3SG.A-cut-APPL-TR
 'It was a machete that he cut me with.' (AC)

- (17) Kaqchikel (Mayan; Dayley 1981: 27)

R-ik'in jun machät x-i-ru-sok-b'e-j.
 3SG-INS a machete COMPL-1SG.P-3SG.A-wound-OBLREG-TR
 'With a machete he wounded me.' (ALC)

Finally, note that Examples (15)–(17) above from Quichean Mayan show a situation where applicativization and oblique registration appear in different languages. Some Oaxaca Mixean languages are remarkable because applicativization and oblique registration coexist there in the same language; Zavala (2015) convincingly argues that this is the case in the Mixean varieties spoken in Totontepec and Tamazulápam. In (18) from the latter, for instance, a monotransitive base verb *ja:p* 'shovel' occurs in three alternating constructions. In the first two, we find the Instrument as a non-core participant and the element *më:t* 'with', occurring as a preposition in (18a) and as a so-called preverb in (18b). In (18c), however, the Instrument is a primary object, that is, it is in P role. Therefore, the verbal prefix *të-* has two related but distinct functions in the language: it is an oblique-registration marker in (18b) and an applicative marker in (18c):

- (18) Tamazulápam Mixe (Mixe-Zoquean; Zavala 2015: 214–215)

a. *N-ja:p-py më:t päl.*
 1.A-shovel-INCOMPL.INDEP with shovel

- b. *Päl mē:t n-tē-ja:p-y.*
shovel with 1.A-OBLREG:INS-shovel-INCOMPL.DEP
- c. *Päl n-tē-ja:p-py.*
shovel 1.A-APPL-shovel-INCOMPL.INDEP
- All three: ‘I shoveled it.’ (Sp. *lo levanté con la pala* in the original)

1.2.3 Summary

Table 3 below schematically summarizes an important part of the constructional space covered by applicatives and lookalikes. (Lexicalized applicatives are not included here; the numbered examples provided in §§ 1.2.1–1.2.2 are cross-referenced in the table.)

The vantage point / reference construction is represented by cell (a) in the table and consists of an [S/A V (X)] clause, which features an argument in S/A role, a predicate—represented as V for convenience here—and either an X argument in oblique role (in the case of an optional applicative) or nothing (in the case of an obligatory applicative).⁷ The prime symbol (') represents formal differences in the predicate (V vs. V'; these differences must be privative) and the oblique (X vs. X'; these differences can be of any kind). This constructional space is structured through four binary distinctions. The first two are morphological and consist of the formal opposition between unmarked and marked predicates (viz. the two columns) and the difference in formal marking between the two obliques X and X' (viz. the first and second rows). The other two distinctions are syntactic and concern the status of the non-S/A argument, that is, the distinction between oblique and non-oblique on the one hand and the one between non-core and core on the other (viz. the second, third, and fourth rows).

Table 3: Selected applicatives and applicative lookalikes.

Non-S/A argument		Predicate morphology	
		Unmarked	Marked
Oblique		(a) S/A V (X)	(e) S/A V' (X) (12b) and (14b)
		(b) S/A V X' (8a)	(f) S/A V' X'
Non-oblique	Non-core	(c) S/A V D (7a)	(g) S/A V' D
	Core	(d) S/A V P (5a), (6a), and (9a)	(h) S/A V' P

⁷ For reasons of readability, Table 3 ignores the following detail: the reference construction may also feature an argument in P role that undergoes no change, unless another argument is installed or promoted in P-role, in which case the initial P may be demoted depending on language-specific rules.

The non-shaded cells (f)–(h) represent different syntactic types of applicatives (viz. those promoting or installing either a core argument in P role, a non-core, non-oblique, argument in D role, or an oblique argument in X role). Cell (h) actually represents one of the narrowest definitions of the phenomenon: having both overt predicate marking and P status for the non-S/A argument.

The shaded cells (b)–(e) represent different kinds of lookalikes. Cells (b)–(d) represent syntactic lookalikes that participate in uncoded alternations with (a); the morphosyntactic status of the argument in non-S/A role in these clauses shows variation, but the predicate is invariably unmarked. One kind of morphological lookalike is only indirectly represented in the table: applicative deponents are found in constructions of the types (f)–(h) when there is no (a)-construction because the unmarked verb is not in use. Cell (e) represents a morphological lookalike of a different kind: the predicate bears applicative-like marking, but the syntactic status of the non-S/A argument in the clause in question and in the vantage clause in (a) are the same. That clause structure is the product of what we have labeled “syntax-neutral intensification” and “oblique registration” here (distinguishing the two subtypes we identified in § 1.2.2).

2 Morphological variation in applicative constructions

The main parameters of morphological variation in ACs are the wordhood status (§ 2.1), the grammaticalization status (§ 2.2), the allomorphy (§ 2.3), and the specificity (§ 2.4) of applicative markers.

2.1 Wordhood

The grammatical/morphosyntactic and phonological/prosodic autonomy of applicative markers shows variation. As a rough first approximation, markers can be either completely dependent (i.e., affixes) or completely autonomous (e.g., verbs or particles). They can also fall in between: they can be grammatically autonomous but phonologically dependent (i.e., clitics), or grammatically dependent but phonologically autonomous (i.e., “unclitics”, as per Woodbury 2011, or “anticlitics”, as per Zúñiga 2014). All examples of applicatives provided hitherto illustrate the affixal type; some exceptions are given in Section 2.2.

2.2 Grammaticalization status of applicative markers

Incipient applicative markers may be virtually indistinguishable from their lexical etymons, which, if they are verbs, may head their own clause. Markers that have evolved further along Hopper and Traugott's (2003) "cline of grammaticality", however, may retain part of their semantic content and morphosyntactic features but occur as functional, rather than as fully lexical, elements in monoclausal constructions. A special case of this consists in APPLICATIVE PERIPHRASES (Creissels 2010). These may be either serial verb constructions, as in Baule (19), or converbal constructions. In one subtype of the latter, the functional verb (e.g., a verb of giving) appears in a finite form while the lexical verb appears as a converb, as in Marathi (20), Japanese, and many other languages. In the other subtype, the lexical verb appears in a finite form while the functional element is a converb, as in Mankon (21); this seems to be a much rarer pattern.

- (19) Baule (Kwa; Creissels and Kouadio 2010: 34)

Ákísí à-tòn duô à-màn Kòfí.
 A. PERF-cook yam PERF-give K.
 'Akissi has cooked yam for Kofi.'

- (20) Marathi (Indo-Aryan; Pardeshi 1998: 147–148)

Rām-ne Sītā-lā bāg zāḍ-ūn di-l-ī.
 R.-ERG S.-DAT garden(F) sweep-CVB give-PST-SG.F
 'Ram swept the garden for Sita.'

- (21) Mankon (Grassfields Bantu; Leroy 2003: 459)

Mà m'í fàʔá ɣ'á mbó zúú.
 1SG FUT work give.NFIN to 3SG.ENUNC
 'I will work for him.'

Note that the coverage of the present book is skewed toward grammaticalized affixal applicatives. Only few chapters address applicativizing particles (in European languages), compound applicatives (in Papuan and Kiranti languages), or applicativizing particles and auxiliaries (in Cushitic languages).

2.3 Allomorphy

Some applicative markers are invariable, like English *out-* in *outgrow* and Mapudungun *-tu* in *illkutun* 'get angry with'. Others show phonologically conditioned allomorphy, like Mapudungun *-ñma* in (13) above: roughly, the marker appears as *-ñma* after vowels, as

-*ma* after glides and some other sonorant non-vocoids, and as -*ũñma* elsewhere.⁸ Like other grammatical markers, applicatives sometimes fuse with adjacent formatives in some languages.

Yet other markers show grammatically conditioned allomorphy. For instance, while the primary applicative -*omo* of Blackfoot in (31) below is invariable, several of the secondary applicatives are not. The locative applicative is *ist-* in the imperative and *it-* elsewhere. The associative applicative is *iihp-* word-initially, *omohp-* immediately after personal prefixes, and *ohp-* elsewhere (as in [29] below). Lastly, the allomorphs *iiht-*, *omoht-*, and *oht-* of a marker targeting several different semantic roles follow the same allomorphy rules as the associative applicative (Frantz 2009: 92–94); Example (31b) illustrates the second of these allomorphs, whereas the following examples illustrate the first (22a) and the third (22b):

- (22) Blackfoot (Frantz 2009: 92, glosses adapted)
- a. *Iiht-waawayáki-aa-wa* *miistsís-i*.
PST\SEC.APPL-hit.TA-DIR-3SG.PROX stick-NSPEC
‘S/he was hit with/by a stick.’
 - b. *Nit-yáak-oht-waahkayi* *áipottaa-wa*.
1-FUT-SEC.APPL-go.home.AI plane-PROX.SG
‘I’ll go home by plane.’

Finally, some applicatives show lexically conditioned allomorphy. The benefactive/malefactive applicative of Aguaruna, for instance, is -*tu* for some verbs (23a) and -*hu* for others (23b):

- (23) Aguaruna (Chicham; Overall 2017: 303, 320)
- a. *Ami=na bala=na iŋki-tu-hama-ka-mĩ*.
2SG=ACC bullet=ACC put.in-APPL-2.OBJ-PFV-3.REC.PST.DECL
‘He’s loaded his gun (to shoot) you.’
 - b. *Wi numi=na tsupi-hu-ka-ta-himi-i*.
1SG wood=ACC cut-APPL-PFV-IMM.FUT-1→2PL-DECL
‘I will cut wood for you (PL).’

2.4 Specificity of applicative markers

Applicative markers can be dedicated or polysemous. Well-known cases in which the markers may also have other, arguably related, functions in the same language include those that applicativize some verbs but passivize, antipassivize, causativize, or decaus-

⁸ See Zúñiga (2009, this volume) for more details.

ativize others. See Zúñiga and Kittilä (2019: § 8.2.1) for a brief overview and some references. See also Malchukov (2015, 2016) for more on such “voice ambivalence” / “ambivalent voice”, and Bahrt (2021) for an in-depth study of co-expression patterns of voice markers / valency operators (for applicatives, see §§ 4.3.1, 4.4, 5.2.3, 5.3.3, and 7.6 therein, as well as Malchukov 2017).

For instance, *-aʔam* can either applicativize or antipassivize the same verb *qʔətx^w* ‘burn’ in Sliammon (24):

(24) Sliammon (Coast Salishan; Watanabe 2015: 1331, 1327)

- a. *Qʔətx^w-əx^w-Ø=č* *šə=θ=pipa-h-ut.*
burn-NTR-3.OBJ=1SG.SBJ.IND DET=2SG.PSR=paper-EP-PST
‘I burned your paper.’
- b. *Qʔətx^w-aʔam-θi=tʰəm* *ʔə=tə=pəp-pipa.*
burn-APPL-CTR:2SG.OBJ=1SG.SBJ.IND.FUT OBL=DET=PL-paper
‘I will burn the paper for you (sg).’
- c. *Qʔətx^w-aʔam=č* *ʔə=tə=pipa.*
burn-ANTIP=1SG.SBJ.IND OBL=DET=paper
‘I burn paper.’

Likewise, *-esh* can either applicativize or causativize the same verb *-men* ‘break’ in Kinyarwanda (25):

(25) Kinyarwanda (Bantu JD.61; Jerro 2017: 753)

- a. *Habimana y-a-men-a* *igi-kombe.*
H.(I) 3.SBJ.I-PST-break-IPFV VII-cup
‘Habimana broke the cup.’
- b. *Habimana y-a-men-esh-eje* *igi-kombe in-koni.*
H.(I) 3.SBJ.I-PST-break-APPL-PFV VII-cup IX-stick
‘Habimana broke the cup with a stick.’
- c. *Habimana y-a-men-esh-eje* *umw-ana igi-kombe.*
H.(I) 3.SBJ.I-PST-break-CAUS-PFV I-child VII-cup
‘Habimana made the child break the cup.’

The use of the same marker for applicative and causative constructions is particularly frequent cross-linguistically. Labels usually employed in the literature in order to refer to the phenomenon include “causative/applicative syncretism” (Shibatani and Pardeshi 2002: 116–122), “applicative/causative isomorphism” (Peterson 2007: 64–68, 133–140), “causative-applicative polysemy” (Malchukov 2017: 403; Creissels, forthcoming: Ch. 14.4.1), and “causative-applicative syncretism” (Bahrt 2021: 93–96); a slightly different term has been proposed by Croft (2022: 285): “causative-applicative co-expression”.

It is common to find lexical restrictions on such co-expression patterns. For instance, while many Kinyarwanda verbs from several semantic verb classes allow

both the instrumental-applicative and the causative interpretation of *-esh*, patientive intransitives (e.g., *rumbur-* ‘bloom’) usually exclude the former, and transitives that entail the use of an Instrument (e.g., *kat-* ‘cut’) typically exclude the latter (Jerro 2017: 757). Similarly, the Walapai verbal suffix *-(w)o* applicativizes agentive intransitives like ‘sing’ (26a–b) and transitives like ‘make’ (26c–d) but causativizes patientive intransitives like ‘cry’ (26e–f):

(26) Walapai (Yuman; Ichihashi-Nakayama 1996: 228–231)

- a. *Jean-ch swa:d-k-i.*
J.-SBJ sing-3-AUX
‘Jean is singing.’
- b. *Jean-ch ba ma-swa:d-o-y-k-i.*
J.-SBJ PL.OBJ 3→2-sing-APPL-FUT-3-AUX
‘Jean will sing for you all.’
- c. *Nya-ch he’ yo:v-wi-ny.*
1SG-SBJ dress make-AUX-PST
‘I made a dress.’
- d. *Nya-ch he’ nyi-yo:v-ò-wi-ny.*
1SG-SBJ dress 1→2-make-APPL-AUX-PST
‘I made you a dress.’
- e. *Nya-ch mi:-yi.*
1SG-SBJ cry-AUX
‘I am crying.’
- f. *Ma:-ch nya mi-mi:-wo-ng-wi-ny.*
2SG-SBJ 1SG 2→1-cry-CAUS-2-AUX-PST
‘You made me cry.’

See Section 3.4 for instances in which it is the intransitive-transitive divide that plays a central role in the distribution of such co-expression patterns.

3 Syntactic variation in applicative constructions

The main syntactic parameters along which applicative constructions vary are the status of the applied phrase (§ 3.1) and the status of the participant bearing the same semantic role as the applied phrase in the base construction (§ 3.2). Other important parameters are the status of different objects in the applicative construction (§ 3.3) and the sensitivity of applicatives to predicate valency (§ 3.4).

3.1 Status of the AppP in the AC

In most of the examples given hitherto, the AppP is encoded as P. ACs with AppPs that are syntactically less prominent include arguments in D role (i.e., indirect objects or “datives” with the Recipient of verbs of giving as semantic prototype, and whose coding differs from the one of the direct object while sharing with it some properties that make it more core-like than oblique-like; see Creissels, forthcoming), as well as those in an oblique X role. For comparative purposes, then, we can distinguish between P-, D-, and X-APPLICATIVES.⁹ For descriptive, language-specific purposes, we may use traditional terminology and distinguish between DIRECT, PRIMARY, INDIRECT, SECONDARY, and OBLIQUE APPLICATIVES.

Examples of D-applicatives are found in Kartvelian and Northwest Caucasian. In the following sentence pair, for instance, the Beneficiary is encoded differently from the argument in P role in (27a)—*st’at’ia* ‘(an) article’—and is outside the clausal core (i.e., it is an adjunct) in (27b):¹⁰

- (27) Georgian (Kartvelian; Manana Topadze, p.c.)
- a. *Da-v-u-ts’er-e* *bavšv-s* *st’at’ia*.
 PVB-1SG-APPL-write-1SG.AOR child-DAT article[NOM]
 ‘I wrote an article for the child.’ (AC)
 - b. *Da-v-ts’er-e* *st’at’ia* (*bavšv-isa-tvis*).
 PVB-1SG-write-1SG.AOR article[NOM] child-GEN-for
 ‘I wrote an article (for the child).’ (BC)

Examples of X-applicatives are found in Atlantic languages. In Seereer (28), for instance, the base verb *-ret* ‘go’ takes an argument expressing Destination (optionally marked by the semantically underspecified preposition *na* in [28a]) and cannot take a Source argument unless applicativized. Note, however, that the coding of the latter argument is even less P-like in (28b) than in (28a), *na* now being obligatory:

- (28) Seereer (Atlantic; Renaudier 2012: 183)
- a. *A-ret-a* (*na*) *marse*.
 3SG.SBJ-go-COMPL PREP market
 ‘S/he went to the market.’ (BC)
 - b. *A-ret-it-a* *na* *marse*.
 3SG.SBJ-go-APPL-COMPL PREP market
 ‘S/he left the market.’ (AC)

⁹ Creissels (forthcoming) also uses P-, D-, and X-applicatives, but the latter type specifically refers to constructions expressing a participant that cannot appear in the BC.

¹⁰ The markers *u-* (3rd person) and *i-* (1st/2nd person) are called “version” markers in Georgian studies; see Tuite (this volume).

A different brand of X-applicatives can be found in Algonquian languages. In Examples (22) above and (29) below from Blackfoot, as well as in Example (30) below from Ojibwe, for instance, the introduced participant can be expressed in a monoclausal construction only as an AppP; the latter is a Comitative (‘with that book’) in (29) and bears a less usual semantic role (‘in the form of a man’) in (30). This constituent is arguably a secondary object in Blackfoot, which seems to lack bona fide obliques; Rhodes (2010) shows that the Ojibwe AppP is less syntactically prominent than a secondary object but more like a core argument than an adjunct:¹¹

- (29) Blackfoot (Algonquian; Frantz 2009: 92; underlying form and glosses adapted)

Yáak-ohp-innisi'yi-yi-aaw om-yi sináákia'tsis-yi.

FUT-SEC.APPL-fall.AI-3PL-3PL DEM-INAN.SG book-INAN.SG

‘They will fall with that book.’

- (30) Ojibwe (Algonquian; Rhodes 2010: 306)

Aniniw-ing=sh go naa o-gii#iN-aabam-aa-an

man-LOC=PTCL PTCL PTCL 3.A-PST#APPL-see.TA-3.P.ANIM-OBV

aniwi manidoo-an.

this.OBV spirit-OBV

‘He saw the spirit in the form of a man.’ (AC)

Some languages have distinct applicatives that allow different kinds of AppPs, as illustrated in (31) from Blackfoot. In (31a), the P-applicative / primary applicative marker *-omo* follows the verb stem and introduces a Beneficiary as primary object;¹² in (31b), the X-applicative / secondary applicative marker *omoht-* precedes the verb stem and introduces a Source as secondary object:

- (31) Blackfoot (Frantz 2009: 103, 93, glosses adapted)

a. *Nit-ii-yIssksipist-omo-aa-wa n-itáakkaa-wa w-óta's-iksi.*

1-PST-tie.TA-PRI.APPL-DIR-3SG.PROX 1-partner-PROX.SG 3-mount-PL.ANIM

‘I tied up his horses for my partner.’

b. *N-omoht-o'too Lethbridge.*

1-SEC.APPL-arrive.AI L.

‘I came from Lethbridge.’

¹¹ Rhodes (2010) calls this grammatical relation “relative root complement” and the oblique applicative marker “relative root”. Frantz (2009) calls Blackfoot secondary applicative markers like *ohp-* in (29) and *omoht-* in (31b) “linkers” and does not address the syntax of the arguments they introduce.

¹² Blackfoot has both an equipollent benefactive marker *-o* (4a) and a benefactive applicative *-omo* (31a). The former is the only so-called final suffix on the stem while the latter is always added to another final; all the related stems meaning ‘tie’ (viz. transitive animate *yIssksip-ist-*, transitive inanimate *yIssksip-i-*, and animate intransitive *yIssksip-ist-aki-*) feature final suffixes of their own.

Finally, consider the following example from a variety of Southern Quechua:

- (32) Ayacucho Quechua (Quechuan; Parker 1969: 71)

Ñuqa-paq rima(-pu-wa)-nqa.

1SG-for speak-APPL-1.OBJ-3.SBJ.FUT

‘S/he will speak for me (in my stead or on my behalf).’

The sentence is also grammatical without the applicative *-pu* and the 1st-person-object marker *-wa* on the verb, in which case the constituent *ñuqapaq* ‘for me’ is simply an optional adjunct. With those two suffixes, however, the status of the non-agentive constituent in the clause cannot be unambiguously characterized; it is neither a run-of-the-mill object (since such arguments take either accusative *-ta*, allative *-man* or perhaps even sociative *-wan* instead of benefactive *-paq*) nor a simple oblique (since such constituents do not trigger object marking on the verb). The status and the distribution of such apparent morphology-syntax mismatches are under-researched topics.

More generally, little is known about the distribution and the evolution of different syntactic types of applicatives. Further research should also explore the extent to which ACs conform to or deviate from the rest of the morphosyntactic patterns of any given language, that is, the extent to which some ACs are best seen as subtypes of clause types already present, as novel clause types complementing the existent ones, or as something else entirely.

3.2 Status of the semantic equivalent of the AppP in the BC

In Example (1) from Zapotec, the co-Agent is an adjunct in the base construction. Nevertheless, the participant corresponding to the applied phrase may be obligatorily absent from the base construction, as in (33) from Tswana. In the latter language, the only way to express a participant with the role of Beneficiary in a monoclausal construction is via the AC:

- (33) Tswana (p.k.)

a. *Kì-tlàà-bérék-él-à Kìtsó màitsibù:á.*

1SG-FUT-work-APPL-FV K(I) evening(VI)

‘I’ll work for Kitso this evening.’ (AC)

b. *Kì-tlàà-bérék-á màitsibù:á.*

1SG-FUT-work-FV evening(VI)

‘I’ll work this evening.’ (BC)

Terminologically, we capture the difference between cases like those like Zapotec in (1) and those like Tswana in (33) by distinguishing OPTIONAL from OBLIGATORY APPLICATIVES.¹³

The participant bearing the same semantic role as the AppP in the BC may also occur as a low-prominence object, as in (34) below. Rather than being a double-object construction (henceforth: DOC),¹⁴ the BC in (34b) has a P argument (*Schokolade* ‘chocolate’, a direct object in the accusative) and a D argument (*den Kindern* ‘to the children’, an indirect object in the dative):

- (34) German (p.k.)
- a. *Wir be-schenk-en die Kind-er mit Schokolade.*
 1PL.NOM APPL-give.as.gift-1PL ART.ACC.PL child-PL[ACC] with chocolate
 ‘We present the children with chocolate as a gift.’ (AC)
 - b. *Wir schenk-en den Kind-er-n Schokolade.*
 1PL.NOM give.as.gift-1PL ART.DAT.PL child-PL-DAT chocolate
 ‘We give the children chocolate as a gift.’ (BC)

Table 4 below summarizes the different applicative types discussed based on the syntactic status of the participant corresponding to the applied phrase.

Table 4: Status of the AppP participant.

Status in BC		
Status in AC	X (optional)	— (obligatory)
	P	P-APPL
	D	D-APPL
	X (?)	X-APPL

The two cells at the bottom of the table merit special attention. The one on the right-hand side is what Creissels (forthcoming) calls “X-applicative” (see Footnote 9) and is illustrated in (35); the pot in which the porridge is to be cooked is expressed as an X in the AC but cannot be expressed in the BC:

¹³ Alternative terminologies distinguish “dynamic applicatives” from “non-dynamic applicatives” (Donohue 2003) and “applicatives” from “objectives” (Cysouw 2023). See also Pacchiarotti’s (2020) Type-B and Type-A applicatives.

¹⁴ The term usually refers to clauses with two morphologically indistinguishable objects. Further note that the comparative term “double-P construction” is narrower, because it refers to instances in which both non-S/A arguments show the coding properties that characterize P’s (not D’s) in monotransitive clauses.

(35) Tswana (p.k.)

- a. *Lòrátsó 'ú-tláá-àpè-èl-à mò-tòχó mó pìtsé-ḡ*
 L.(I) 3SBJ.I-FUT-cook-APPL-FV SG-porridge(III) LOC pot(IX)-LOC
é 'tô:nà.
 LK.IX big.IX
 'Lorato will cook the porridge in the big pot.' (AC)
- b. *Lòrátsó 'ú-tláá-àpàj-à mò-tò:χó.*
 L.(I) 3SBJ.I-FUT-cook-FV SG-porridge(III)
 'Lorato will cook the porridge.' (BC)

The cell on the left-hand side could logically exist, but we are not aware of any concrete instances in which the participant in question can appear as oblique in both BC and AC, specifically with a different coding.

Further research should explore whether present-day obligatory applicatives may have originated in erstwhile optional constructions (and the BC has ceased to be used with a counterpart of the applied phrase of the AC, for instance). Alternatively, ACs may begin as obligatory and become optional later, perhaps constrained by lexical or grammatical factors. Some data from the languages of Senegal suggest that language contact may play a role, with sporadic occurrences of prepositional coding of Beneficiaries modeled after another language in more or less pidginized varieties of languages that normally code beneficiaries via an obligatory P-applicative construction.

3.3 Status of different objects in the AC

Some P-applicative constructions are DOCs; in such cases, the literature has captured similarities and differences in the status of those two objects (i.e., two P's) via the terminological distinction between SYMMETRY and ASYMMETRY. Some authors distinguish between SYMMETRIC and ASYMMETRIC APPLICATIVES (e.g., Pytkänen 2008) while others distinguish more generally between SYMMETRICAL-OBJECT and ASYMMETRICAL-OBJECT LANGUAGES (e.g., Bresnan and Moshi 1993). The following examples from Kikuyu (36) and Chingoni (37) illustrate the difference between the two types. Despite the superficial similarity of the postverbal constituents in both sentences, diagnostics regarding constituent order rigidity, passivization, and indexing show that the two objects in (36) are equally prominent, whereas the object closest to the verb in (37) (*vandu* 'people') outranks the rightmost constituent (*ugimbi* 'beer'):

(36) Kikuyu (Bantu E51; Ngonyani and Githinji 2006: 35)

- Mũ-geni a-ra-gũr-ĩ-ire ci-ana mũ-bira.*
 I-guest 3.SBJ.I-PROG-buy-APPL-ASP VIII-child III-ball
 'The guest bought children a ball.'

- (37) Chingoni (Bantu N12; Ngonyani and Githinji 2006: 35)

M-geni i-gul-i va-ndu u-gimbi.
 I-guest PRS-buy-APPL II-person XIV-beer
 ‘The guest is buying beer for people.’

DOCs may be restricted or even absent in a given language. In such cases, ACs may be almost valency-neutral, as in (34) above, where the BC has P and D arguments (a direct and an indirect object), and the AC has a P and an X instead (a direct and an oblique object). Alternatively, they may be REDIRECTING, as in (38) below, where the P and the X argument (the direct and the oblique objects) merely become rearranged semantically and the operation is valency-neutral (see also § 3.4):

- (38) German (p.k.)

- a. *Wir be-sprüh-te-n die Pflanzen mit Pestizid.*
 1PL.NOM APPL-spray-PST-1PL ART.ACC.PL plant-PL with pesticide
 ‘We sprayed the plants with pesticide.’ (AC)
- b. *Wir sprüh-te-n Pestizid auf die Pflanz-en.*
 1PL.NOM spray-PST-1PL pesticide on ART.ACC.PL plant-PL
 ‘We sprayed pesticide on the plants.’ (BC)

3.4 Sensitivity to syntactic valency

This parameter refers to the number of core syntactic arguments in the base construction. In (39) below, for instance, the base predicate is syntactically monovalent and has no objects; since the psych verb *illku* ‘get angry’ has only two semantic arguments (viz. Experiencer and Stimulus), the BC has no other non-agentive participants that might be core syntactic arguments; *ñi chaw mew* ‘with my father’ in (39b) is an optional adjunct. (The clause can also include adjuncts expressing spatiotemporal Locations, but these are not relevant in the present context.)

- (39) Mapudungun (p.k.)

- a. *Illku-tu-fi-n ñi chaw*
 get.angry-APPL-3.OBJ-1SG.IND 1SG.PSR father
 ‘I got angry with my father.’ (AC)
- b. *Illku-n (ñi chaw mew).*
 get.angry-1SG.IND 1SG.PSR father POSTP
 ‘I got angry (with my father).’ (BC)

ACs with syntactically bivalent BC counterparts are by no means rare, as shown in Polinsky (2013) and Moroz and Polinsky (this volume). Example (40) illustrates an instance where the AC has two objects (*teman saya* ‘my friend’ and *nasi gorengnya* ‘the fried

transitivization device (i.e., applicable to both), etc., and later become either more freely applicable or more limited. Further research may unearth clear cases of ACs extending their applicability range due to contact.

Table 5 below summarizes the different applicative types discussed above based on the valency of both related clauses. REDIRECTING APPLICATIVES are valency-neutral and occupy the top-left-to-bottom-right, shaded, diagonal (the 1-1 cell is logically empty, since applicatives do not introduce arguments in S/A role). TRANSITIVIZING APPLICATIVES are valency-increasing and occupy the cells immediately below the previous diagonal. The cell corresponding to $v_3 \rightarrow v_2$ operations is a special case of detransitivization (e.g., with German *schchenken/beschenken* ‘give as a gift’ in [34]).

Table 5: Valency correspondences.

		BC valency		
		1	2	3
AC valency	1			
	2	MONOTR	REDIR	DETR
	3		DITR	REDIR
	4			TRITR

4 Semantic variation in applicative constructions

The parameter of semantic variation that has received most attention in the literature is whether the semantic role of the AppP has to be inferred from the context or is denoted by the particular construction (§ 4.1). A parameter that has received disparate treatment in the literature is the kind of semantic role borne by the AppP (§ 4.2).

4.1 Semantic role specificity

Broad applicatives are not difficult to find; Indonesian *-kan*, for instance, derives not only benefactive (as in [40] above) but also instrumental applicatives:

(43) Indonesian (Sneddon 1996: 79)

- a. *Dia meng-ikat-kan tali ke anjing.*
 3SG AV-tie-APPL rope to dog
 ‘He tied the rope to the dog.’ (AC)
- b. *Dia meng-ikat anjing dengan tali.*
 3SG AV-tie dog with rope
 ‘He tied up the dog with a rope.’ (BC)

Peterson (2007: 39) calls such constructions—“when a single applicative marker refers to multiple thematic participant types (regardless of whether or not these participants are treated identically in terms of morphosyntax)”—GENERALIZED APPLICATIVES. Note that the term covers not only instances where a particular marker can applicativize the same predicate with different semantics but also those where the marker behaves differently with predicates from different classes (e.g., valency classes).¹⁵

Further note that Indonesian *-kan* can function as a benefactive/instrumental applicative with monotransitives, as in (43) above, but as an (optional) “antibenefactive” marker with ditransitives, as in (44) below. The construction in (44b) promotes the Theme and demotes the Recipient vis-à-vis the DOC in (44a):

(44) Indonesian (Chung 1983: 234, cited in Malchukov 2017: 18)

- a. *Ali beri [wanita itu] [surat].*
A. give woman the letter
‘Ali gave the woman a letter.’
- b. *Ali beri(-kan) [surat] [kepada wanita itu].*
A. give-APPL letter to woman the
‘Ali gave a letter to the woman.’

Malchukov (2017: 17–21) calls this phenomenon “applicative reversal” (and considers it a special case of his “markedness reversal”).

Semantically specific applicatives are easy to find as well, especially those that introduce Beneficiaries, Instruments, accompanying Agents/Themes, and Locations (Peterson 2007). Hakha Lai is particularly interesting in that it has not only the cross-linguistically common benefactive, instrumental, and comitative applicatives but also a series of idiosyncratic and rare applicatives, namely additional-benefactive *-tseʔm* (45a), malefactive-allative *-hnoʔ* (45b), prioritive *-kaʔn* (45c), and relinquitive *-taak* (45d):

(45) Hakha Lai (Tibeto-Burman; Peterson 2007: 41, 19)

- a. *Thiŋ ʔa-ka-laak-tseʔm.*
wood 3SG.SBJ-1SG.OBJ-carry-APPL₁
‘He carried wood for me (in addition to carrying wood for himself).’
- b. *Kheenʔ ʔa-ka-hloʔn-hnoʔ.*
dish 3SG.SBJ-1SG.OBJ-throw-APPL₂
‘She threw the dish at me.’

¹⁵ Note Gil’s even broader notion: “A *generalized voice marker* is a marker M which, when applied to form X, marks the argument of X bearing the thematic role T as having a set of properties P” (2002: 276, emphasis in the original). This author sees such voice markers as ranging from “weak” to “strong”, depending on how many properties—for instance, morphosyntactic subject properties—the target argument shows. The term is also used differently by some theoretical studies, where additional aspects of the grammar-and-lexicon architecture are relevant (see, e.g., Svenonius 2014; but cf. Polinsky, this volume).

- c. *Booy ?a-ka-toon-kaʔn.*
 chief 3SG.SBJ-1SG.OBJ-meet-APPL₃
 ‘He met the chief ahead of / before me.’
- d. *?a-law ?a-ka-thloʔ-taak.*
 3SG.PSR-field 3SG.SBJ-1SG.OBJ-weed-APPL₄
 ‘He left me and weeded his field.’

Just as benefactive and malefactive applicatives are sometimes distinguished overtly (as in Amharic; see Amberber, this volume), the comitative type cannot be simply lumped together with what Messerschmidt (2022), following Melnar (1998), labels “portative”. With the (rather broad) comitative type, the AppP is “understood to be a co-participant with the subject in the performance of the action described by the verb” (Peterson 2007: 18); see Example (1) above and Example (46) below from Hakha Lai:

- (46) Hakha Lai (Peterson 2007: 18)
Ka-law ?an-ka-thloʔ-pii.
 1SG.PSR-field 3PL.SBJ-1SG.OBJ-weed-APPL
 ‘They weeded my field (together) with me.’

By contrast, the (narrower) portative type found in Caddoan languages and Osage occurs with motion verbs and allows the derived predicate to take an argument in P role that is portrayed as being carried by an Agent that is also a Theme (i.e., an Agent-cum-Theme argument) in S/A role, that is, as a Patient that is also a Theme (i.e., a Patient-cum-Theme).¹⁶ See the following illustration of the use of portative-applicative *ni-* in Caddo with the verb *wid(i)-* ‘arrive’:

- (47) Caddo (Caddoan; Melnar 1998: 170)
- a. *Kac’ikán=?awi-wid-ah.*
 PRIOR.QUOT=ABS.SG-arrive-PERF
 ‘They say he’s (already) here.’
- b. *Ni-wid-ah.*
 APPL-arrive-PERF
 ‘He brought it.’ (Lit. ‘He arrived carrying it.’)

¹⁶ The semantics of *ni-* and its allomorphs is probably broader in Caddoan, as seen from instances where the applicative marker co-occurs with a prefix denoting an animate Patient: ‘arrive’, ‘come’, and ‘go’ all become ‘follow’ then (see Rood 1976:72 for Wichita and Melnar 1998: 171 for Caddo). Messerschmidt herself cites a similar example from Sierra Popoluca, where the addressee is told to ‘take (= APPL+go) a dog’ and ‘bring (= APPL+come) a man’, and “it can be really difficult to tell [...] whether it is a sociative causative, a portative or a comitative construction” (2022: 176).

Among the many cross-linguistic generalizations discussed in Peterson (2007: 202–230), one that has become received wisdom in studies of valency and voice is the implicational relationship between different semantic roles. AppPs denoting Locations and those expressing Causes presuppose the existence of other applicatives, while instrumental, comitative, and benefactive/malefactive applicatives occur alone much more freely, “as anchors, as it were, for the development of distinct morphology (via extension of already existing applicative morphology or by grammaticalization of independent applicative constructions)” (p. 229). From this perspective, the exact synchronic distributions and diachronic connections between different applicatives in the same language and linguistic group are particularly interesting.

4.2 Semantic role kind

Semantic roles can be seen as central or peripheral, either in binary terms or along a continuum of involvement (Lehmann 2006). Central, maximally involved, roles are constitutive of the state of affairs and include Agents, Forces, Themes, and Patients. Peripheral, rather loosely involved, roles presuppose the presence of central ones and include Comitatives, Instruments, and Beneficiaries. Other roles, like Sources, Goals, Recipients, and Experiencers, occupy an intermediate zone.

Lehmann (2006) and many other studies have noted the cross-linguistic tendency for central roles to be granted core argument status in the syntax and for peripheral roles to be routinely expressed as oblique objects or adjuncts. Accordingly, there seems to be a cross-linguistic tendency for ACs to work on peripheral roles; Comitatives, Instruments, and Beneficiaries are indeed the most common roles with applicatives worldwide (Peterson 2007). ACs that are supposedly less common work on central roles like Themes and Patients, as illustrated by the following Tolai example:¹⁷

(48) Tolai (Oceanic; Mosel 1991: 248)

- a. *A vavina i mim=e ra tava.*
 ART woman 3.SBJ drink=APPL ART water
 ‘The woman drank the water.’ (AC)
- b. *A vavina i momo.*
 ART woman 3.SBJ drink
 ‘The woman drank (something).’ (BC)

¹⁷ Messerschmidt (2022) reanalyzes some causatives and other applicatives as portative applicatives, which leads her to regard the latter construction—which has a Patient-cum-Theme in P role—as frequent: she finds it in 22 out of 49 languages in her convenience sample (second only to benefactive applicatives, with 27 languages, and significantly outranking her third type, viz. locative-directional applicatives, with 10).

Finally, consider the question of the exact interpretation of the semantic role of the AppP. The literature has often noted that German *be*-ACs are systematically close, but not identical, semantic counterparts of their BCs. In the following pair, for instance, the old house is a Location in (49a) but rather a (non-prototypical) Patient in (49b). Some studies have claimed, however, that this HOLISM EFFECT may well be the result of direct object status and/or accusative coding, rather than of applicativization per se (Wechsler 2015: 308–309):

(49) German (p.k.)

- a. *Wir wohn-te-n damals in ein-em alt-en Haus.*
 1PL.NOM dwell-PST-1PL at.the.time in one-DAT old-DAT.SG house
 ‘We lived at the time in an old house.’ (BC)
- b. *Wir be-wohn-te-n damals ein alt-es Haus.*
 1PL.NOM APPL-dwell-PST-1PL at.the.time one[ACC] old-ACC.SG house
 ‘We occupied at the time an old house.’ (AC)

That the exact interpretation of the semantic role of the AppP can be related to the applicative marker, however, is seen in (50), where *ihr Auto* ‘their car’ is an accusative-marked direct object in both versions. In (50a), with *packen* ‘pack’, the Millers pack the inside of their car; in (50b), with *bepacken* ‘pack’, the object is interpreted as covering both the trunk and the top of their car:

(50) German (based on Brinkmann 1997: 58–59)

- a. *Müllers packen ihr Auto immer als blieben sie ein halbes Jahr lang weg.*
 b. *Müllers bepacken ihr Auto immer als blieben sie ein halbes Jahr lang weg.*
 Both: ‘The Millers pack their car as if they will be away for half a year.’

This effect seems to be a special case of a more general topological restriction placed on German *be*-verbs: the *be*-AC “resists interpretations in which the event denotes movement into the interior of an object”—an “exteriority constraint” (Wechsler 2015: 309). If the outlet in (51a) and the glass in (51b) are interpreted as (atypically) referring to the exterior of the corresponding entities, the clauses are grammatical; if they are intended to refer to their interior, they are not:

(51) German (Brinkmann 1997: 58)

- a. *Ted be-wirft [die Wand] / ^(*)[den Abfluss] (mit Dreck).*
 T. APPL-throws ART wall ART outlet with dirt
 Lit. ‘Ted throws the wall / the outlet with dirt.’
- b. *Sue be-gießt [den Braten] / ^(*)[das Glas] (mit Wasser).*
 S. APPL-pours ART roast ART glass with water
 Lit. ‘Sue pours the roast / the glass with water.’

5 Applicatives and applicative lookalikes in Classical Nahuatl

This section outlines applicativization in the language for whose description the term was first introduced (see § 6.1 for an outline of the term's subsequent history). We do not provide an introduction to Classical Nahuatl as a languoid here, but we otherwise follow the same blueprint as many chapters of the present book: we first provide the basics of Nahuatl clause and verb structure required for the discussion of applicatives (§ 5.1); then we list morphological (§ 5.2), syntactic (§ 5.3), and semantic hallmarks of applicatives in the language (§ 5.4); lastly, we make some remarks on the most prominent lookalikes found (§ 5.5). All examples given here are from Launey (1979: 192–209); translations are from the English version of that work by Christopher Mackay (Launey 2011: 202–221). For the description and analysis of applicatives, we consulted both that source and Launey (1994: 195–199). The reader is referred to Newman (1967), Sullivan (1988), and Andrews (2003) for other sources that present a very similar view of applicativization in the language.

5.1 Basics of Nahuatl morphosyntax

5.1.1 Core argument realization

In Classical Nahuatl, the existence of a grammatical relation “subject” conflating the single argument of monovalent verbs and the most Agent-like argument of bivalent verbs is uncontroversial. Neither subjects nor objects are flagged. 1st- and 2nd-person subjects are obligatorily indexed by means of prefixes (which are also used for non-verbal predicates), and there is no overt 3rd-person subject prefix; irrespective of person, subject plurality is marked by a suffix. Objects of monotransitive verbs and primary objects of ditransitive verbs are obligatorily indexed by means of markers from a paradigm that differs from the one used for subjects and includes a non-zero form for 3rd person. More generally, primary objects of ditransitive verbs behave identically to objects of monotransitive verbs. Secondary objects of ditransitive verbs share a number of properties with primary objects (including accessibility to antipassivization) but differ from them in other respects. The basic constituent order in verbal clauses is VSO, but discursively salient subjects or objects (either topicalized or focalized) can move to preverbal position.

5.1.2 Morphological structure of verbal predicates

The structure of Classical Nahuatl verb forms can be schematized as a sequence of morphological slots. Tables 6 and 7 below give an overview of the main fillers found in the slots that precede and follow the root, respectively.

Table 6: Pre-root slots of Nahuatl verb forms.

-8	-7	-6	-5	-4	-3	-2	-1	0
SBJ	OBJ	PL	DIREC	MID	ANTIP ₁	ANTIP ₂	IN	Root

The first three preradical slots correspond to argument indexes. Slot -8 can be filled by a subject index of first and second person; no overt marker occurs in this slot with a third-person subject. The imperative marker *x(i)-* (which implies a second-person subject) can also occupy this slot. Slot -7 can be filled by an object index. With transitive verbs, an overt object index obligatorily occurs in this slot with all persons. With ditransitive verbs, only the primary object is indexed. Slot -6 can be occupied by *im-*, which marks 3PL objects (either primary or secondary).¹⁸ Slot -5 can be occupied by a directional marker.

Slots -4 through -2 correspond to voice categories. Slot -4 can be filled by the middle voice marker (viz. *no-* with a 1SG subject, *to-* with a 1PL subject, *mo-* with a 2nd- or 3rd-person subject, and *ne-* in the “impersonal middle”, i.e., if the passive marker is also included in the verb form). Slots -3 and -2 can be filled by the human antipassive marker *tē-* and the non-human antipassive marker *tla-*, respectively.

Lastly, the slot immediately preceding the root can be filled by an incorporated nominal lexeme.

Table 7: Post-root slots of Nahuatl verb forms.

0	1	2	3	4	5
Root	CAUS	APPL	PASS	TAM	PL

The first three postradical slots also correspond to voice categories. Slot 1 can be filled by the causative marker *-(l)tia*.¹⁹ Slot 2 can be filled by the applicative marker, which has the allomorphs *-lia*, *-ia*, *-huia*, or *-lhuia*. Slot 3 can be filled by the impersonal marker *-hua* or the passive marker *-lo*, the uses of which overlap to some extent.

Slot 4 can be filled by a variety of TAM suffixes, including the so-called participial suffix (which by itself expresses a value that can be labeled “narrative past”),²⁰ the sequence [z- + participial suffix] (which expresses the value “future”), the incomplete past marker *-ya*, the potential marker *-ni*, and others (Launey 1994: 29).

¹⁸ The marking of object plurality by means of *im-* is not governed by the plurality of referents, but by plurality marking on the corresponding object NP. The general Nahuatl rule (which allows for some exceptions) is that only animate NPs can be marked for plural.

¹⁹ *-tia* is generally used for causatives of intransitives, and *-ltia* for causatives of transitives, but there are exceptions.

²⁰ The “participial suffix” selects a special form of the verb stem and has four distinct allomorphs (including a zero allomorph).

The final slot can be occupied by a formative marking subject plurality. Subject plurality is obligatorily marked in this slot, whereas subject singularity is not overtly marked.²¹

In addition to the morphological slots listed above, the verb form may be preceded by particles that are not attached to the verb morphologically, but have limited mobility and contribute to the expression of grammaticalized TAM values. These particles include *ō* (conventionally written as if it were a prefix), which, in combination with the “participial suffix” in the TAM slot, expresses a perfect meaning; the optative particle *mā* and its negative counterpart *mācamo*; *ye* ‘already’; and *oc* ‘still’.

5.1.3 Some remarks on ditransitive verbs and causativization

Two successive object indexes in the same verb form are not allowed, but a prefix *im*-marking 3PL objects may encode the plurality of two distinct participants. This justifies the recognition of ditransitive verbs—such as *maca* ‘give (sth.) to (sb.)’ or *ilhuia* ‘tell (sth.) to (sb.)’—which have a primary object (indexed) and a secondary object (not indexed).

The primary object represents an animate Goal. The secondary object (the Theme) shares with the primary object the lack of flagging, plurality marking on the verb, and accessibility to antipassivization. Unlike the primary object, the secondary object is not accessible to passivization.

Causatives of intransitive verbs behave like regular underived monotransitive verbs, with the causee in the role of object. Causatives of transitives behave like regular ditransitive verbs, with the causee in the role of primary object and the initial object in the role of secondary object.

5.2 The morphology of Nahuatl applicatives

The applicative suffixes are *-lia*, *-ia*, *-huia* and *-lhuia*; the former is the most common one. They do not differ semantically; their distribution is partly determined by the phonological nature of the ending of the stem to which they attach, but there is some free variation between them. These markers may not only trigger modifications of the stem but also undergo morphophonological modifications triggered by the formative that follows them.

Exceptionally, applicative constructions can be marked by a suffix identical to the causative suffix *-tia*, as in *cuīca-tia* ‘sing for (sb.)’ < *cuīca* ‘sing’ and *nāmac-tia* ‘sell (sth.) to (sb.)’ < *nāmaca* ‘sell (sth.)’.

²¹ As with object plurality marking, the marking of subject plurality by means of this suffix is not governed by the plurality of referents, but by plurality marking on the corresponding subject NP.

- b. *Cāmpa ni-c-no-cuī-lī-z* *in no-tlātlacōl?*
 where 1SG.SBJ-3.OBJ-MID-take-APPL-FUT DEF 1SG-food
 ‘Where shall I get food for myself?’ (Launey 1979: 196)

Example (56) illustrates the applicativization of a causative construction.

- (56) Classical Nahuatl (Launey 2011: 209)
Ti-nēch-in-cua-ltī-lia *nacatl in no-pil-huān-totōn.*
 2SG.SBJ-1SG.OBJ-PL-eat-CAUS-APPL meat DEF 1SG-child-CSTR.PL-DIM.PL
 ‘You are making my children eat meat.’

5.3 The syntax of Nahuatl applicatives

Classical Nahuatl applicatives are P-applicatives. In general (but not always, see Examples [63]–[64] below), they can be characterized as obligatory applicatives that increase the valency of the verb. Applicativization is possible for both intransitive and transitive verbs, but it is more productive with the latter. The possibility of applicativization of ditransitive verbs is not mentioned in the sources.

Applicativization converts intransitive BCs into monotransitive ACs with the applied phrase in the role of object (57); see also Example (67) in Section 6.1.

- (57) Classical Nahuatl (Launey 2011: 204)
- a. *Ni-tlaxtlāhua.*
 1SG.SBJ-pay
 ‘I pay.’
 - b. *Ni-mitz-tlaxtlāhu-ia.*
 1SG.SBJ-2SG.OBJ-pay-APPL
 ‘I pay you.’

Applicativization also turns transitive BCs into ditransitive ACs with the applied phrase in the role of primary object and the initial object encoded as the secondary object, as in (58)–(59).

- (58) Classical Nahuatl (Launey 2011: 205)
- a. *Ni-c-cui* *in tomin.*
 1SG.SBJ-3.OBJ-take DEF money
 ‘I take the money.’
 - b. *Ni-mitz-cuī-lia* *in tomin.*
 1SG.SBJ-2SG.OBJ-take-APPL DEF money
 ‘I take the money from you.’

(59) Classical Nahuatl (Launey 2011: 204)

- a. *Ni-qu-ixca* *tōtoltetl*.
 1SG.SBJ-3.OBJ-fry egg
 ‘I am frying eggs.’
- b. *Ni-mitz-ixqu-ia* *tōtoltetl*.
 1SG.SBJ-2SG.OBJ-fry-APPL egg
 ‘I am frying eggs for you.’

Applicatives from intransitives behave like underived monotransitive verbs, and applicatives from transitives behave like underived ditransitive verbs.

5.4 The semantics of Nahuatl applicatives

Applied objects mostly express the semantic roles of Beneficiary/Maleficiary, and more generally animate Goals. These roles include those implied by the lexical meaning of the verb, and consequently cannot be deemed “non-essential”, as in Example (57) above with ‘pay’. Launey (1994) provides additional examples with ‘declare (sth. to sb.)’, ‘send (sth. to sb.)’ and ‘throw (sth. to sb.)’.

A comitative meaning is possible with some verbs, for example ‘share’ > ‘share with’:

(60) Classical Nahuatl (Launey 2011: 206)

- Ō-ni-c-xelō* *in nacatl*. —
 PERF-1SG.SBJ-3.OBJ-share.PST DEF meat
Ākin ō-ti-c-xel-huī?
 who PERF-2SG.SBJ-3.OBJ-share-APPL.PST
 ‘I shared out the meat. — Who did you share it out with?’

Inanimate applied objects expressing ‘up to’ or ‘beyond’ are found with motion verbs:

(61) Classical Nahuatl (Launey 2011: 207)

- Ō-ni-c-chol-huī* *in ātoyatl*.
 PERF-2SG.SBJ-3.OBJ-flee-APPL.PST DEF river
 ‘I fled to the other side of the river.’

There are also isolated cases of inanimate applied objects that do not seem to lend themselves to semantic generalizations:

(62) Classical Nahuatl

- a. *Ni-c-chōqui-lia* *in no-tlātlacōl*.
 2SG.SBJ-3.OBJ-cry-APPL DEF 1SG-sin
 ‘I cry for (with reference to) my sins.’ (Launey 2011: 207)

- b. *Xi-c-tlāli-li* *iztatl in ātl.*
 IMP-3.OBJ-put-APPL.IMP salt DEF water
 ‘Put salt in the water.’ (Launey 1979: 200, 394)

A particularity of Classical Nahuatl applicativization is that objects modified by an adnominal possessor show a strong tendency to occur in an applicative construction in which the applied object is coreferential with the adnominal possessor of the secondary object. Rather than adding a participant, such ACs emphasize the fact that the referent of the adnominal possessor can be viewed as concerned by the participation of the referent of the possessee in the event. The non-applicative monotransitive constructions (63a) and (64a) are possible, but the same meanings are more commonly expressed as (63b) and (64b), respectively.²³

(63) Classical Nahuatl (Launey 2011: 206)

- a. *Ni-qu-in-tlazòtla* *in mo-pil-huān.*
 1SG.SBJ-3.OBJ-PL-like DEF 2SG-child-CSTR.PL
 ‘I love your children.’
- b. *Ni-mitz-in-tlazòti-lia* *in mo-pil-huān.*
 1SG.SBJ-2SG.OBJ-PL-like-APPL DEF 2SG-child-CSTR.PL
 ‘I love your children (for you).’

(64) Classical Nahuatl (Launey 2011: 206)

- a. *Ni-c-mati* *in mo-tlàtlacōl.*
 1SG.SBJ-3.OBJ-know DEF 2SG-sin
 ‘I know your sins.’
- b. *Ni-mitz-machi-lia* *in mo-tlàtlacōl.*
 1SG.SBJ-2SG.OBJ-know-APPL DEF 2SG-sin
 ‘I know your sins (regarding you).’

By contrast, if the object is incorporated, the possessor is treated as the object of a non-applicative monotransitive construction; compare (65a) and (65b). Applicative marking does occur in the more complex configuration illustrated by (65c):

(65) Classical Nahuatl (Launey 2011: 210)

- a. *Ni-mitz-pāqui-lia* *in mo-cuā.*
 1SG.SBJ-2SG.OBJ-wash-APPL DEF 2SG-head
 ‘I wash your head for you.’

²³ The nominal suffix encoding that the noun is modified by an adnominal possessor is labeled “construct form marker”.

- b. *Ni-mitz-cuā-pāca.*
 1SG.SBJ-2SG.OBJ-head-wash
 Lit. ‘I head-wash you.’ / ‘I wash you in terms of the head.’
- c. *Ni-mitz-cuā-pāqui-lia* *in* *mo-pil-tzin.*
 1SG.SBJ-2SG.OBJ-head-wash-APPL DEF 2SG-child-DIM
 Lit. ‘I head-wash your son (for you).’

5.5 Nahuatl applicative lookalikes

The language has lexicalized applicatives. For instance, *pōhua* ‘count, read’ is compatible with two applicative suffixes, *-lia* and *-ia*, but *pōhui-lia* has the regular meaning ‘count/read (sth.) to (sb.)’, whereas *pōhu-ia* unpredictably expresses ‘hex, cast a spell on’.²⁴

Interestingly enough, verb forms combining middle-voice marking and causative or applicative marking can be used with a conventionalized meaning distinct from their literal meaning ‘make oneself V’ or ‘V for oneself’. The combination [MID + CAUS] can be used as the honorific form of intransitive verbs (66a), whereas the combination [MID + APPL] can be used as the honorific form of transitive verbs (66b), without any change in valency:

- (66) Classical Nahuatl (Launey 2011: 213, 215)
- a. *Ti-mo-cochī-tia.*
 2SG.SBJ-MID-sleep-HON
 ‘You are sleeping.’ (honorific) (Lit. ‘You are making yourself sleep.’)
- b. *Qui-mo-chīhui-lia.*
 3.OBJ-MID-do-HON
 ‘He makes it.’ (honorific) (Lit. ‘He makes it for himself.’)

6 The notion of applicativization in context

6.1 Historical background

To the best of our knowledge, the term *verbo aplicativo* ‘applicative verb’ was first used in Rincón (1595), one of the earliest descriptions of Classical Nahuatl, and was later adopted by Carochi (1645) for his own description and by Uto-Aztecan studies ever since. As already presented in some detail in Section 5, Nahuatl intransitive and transi-

²⁴ Launey’s French original gives “*je lui jette un sort*” ‘I cast a spell on him’ (1979: 194), but Mackay’s English translation gives “I read his fortune (through divination with kernels of corn)” (2011: 204).

tive predicates can take the applicative suffix *-lia* or one of its allomorphs and thereby accommodate an (additional) object in the clause; (67) illustrates this with intransitive *tzàtzi* ‘shout’:

(67) Classical Nahuatl (Launey 2011: 42, 203, glosses added)

- a. *Ni-tzàtzi.*
1SG.SBJ-shout
‘I shout.’
- b. *Ni-mitz-tzàtzi-lia.*
1SG.SBJ-2SG.OBJ-shout-APPL
‘I shout after you.’ / ‘I call you by shouting.’

A comparable phenomenon is found in Bantu languages, and the term is regularly used in that descriptive tradition as well. In Kinyarwanda, for instance, many verbs can take the applicative suffix *-iish* and thereby accommodate another object in the clause they head; (68) illustrates this with transitive *-andik-* ‘write’:

(68) Kinyarwanda (Kimenyi 1980: 32)

- a. *Umukoôbwa a-ra-andik-a ibáruwa n’-íkárámu.*
girl 3SG.SBJ-PRS-write-FV letter with-pen
 - b. *Umukoôbwa a-ra-andik-iish-a ibáruwa ikárámu.*
girl 3SG.SBJ-PRS-write-APPL-FV letter pen
- Both: ‘The girl is writing a letter with a pen.’

Examples (67) and (68) look quite similar, but they differ in a number of important ways—which partly explains the fact that different descriptive traditions have gravitated towards different ideas about what “canonical” applicatives look like (see § 6.2 for more on this issue). Regarding syntax, the base verbs applicativized by the markers *-lia* and *-iish* in the two languages belong to different valency classes, at least in the examples chosen here: the new object is alone in the Nahuatl example but co-occurs with another object in the Kinyarwanda clause. Regarding semantics, the new object can have various semantic roles in Nahuatl, namely Beneficiary, Maleficiary, Goal, etc.; it can only be an Instrument with Kinyarwanda *iish*-applicatives. Regarding morphology, the applicative markers occupy quite different niches in their respective semiotic ecologies. In Nahuatl, a homophonous suffix *-lia* also occurs on honorific verbs, but the causative *-tia* has a different shape. Kinyarwanda does not have honorific verbs, but its causative is also marked by *-iish*, and applicative constructions with an applied phrase expressing roles other than Instrument require a different marker. Lastly, the broad applicative illustrated in (67) is typically the only way to accommodate that particular non-agentive participant in the clause in Nahuatl, whereas the instrumental applicative normally allows Kinyarwanda speakers to choose from the two roughly synonymous expressions given in (68).

Unlike Uto-Aztecan studies, early descriptions of Bantu languages show significant terminological disparity regarding the treatment of applicatives. In his descriptive sketch of Kongo, Brugiotti (1659: 40) used the term *verbum respectivum* ‘respective verb’ (opposed to the unmarked *verbum absolutum* ‘absolute verb’); Bleek (1873: 8) used “relative form of the verb” for southern languages, and Endemann (1876: 64) used the term *direktiv* ‘directive’ for Sotho. Bantuist terminology seems to have unified in the late 19th century: Bentley (1887: 627) and Steere (1884: 158) used the term “applied form” in their studies of Kongo and Swahili, respectively, and “applicative” is found—occasionally alongside other terms—in Torrend (1891), Stapleton (1903), Meinhof and Van Warmelo (1932), Watkins (1937), Guthrie (1967–1971), Meeussen (1967), as well as in later studies. (See Dammann 1961: 160–161 for a review of the labeling of applicatives in Bantu studies in particular and Pacchiarotti 2020: 28–31 for a more detailed terminological survey in general.)

Authors working in other descriptive traditions have sometimes used alternative terms, e.g. “rule of Dative” (e.g., Chung 1976 for Indonesian) and “object advancement” (e.g., Norman 1978 for Eastern Mayan, as well as Aissen 1983, 1987 for Tzotzil). Modern Mayanists not working in the Relational-Grammar framework have customarily used the term *applicative* (e.g., Grinevald and Peake 2012: 38), and some scholars working on Philippine languages have employed it as well (e.g., Bell 1983 for Cebuano). Other terms have not spread beyond descriptive, often language-specific, studies. For instance, work on Kartvelian uses “version”, a coinage derived from Georgian *kceva* ‘turning, change, behavior’; Salas (2006: 119) labels the Mapudungun applicative markers *sufijos indirectizantes* ‘indirecting suffixes’; Ainu descriptions have used the terms “appropriative” and “demonstrative” (Bugueva 2010: 752); and several dictionaries of linguistics from the 1950s and 1960s use the term “accommodative”, possibly under the influence of the traditional term *dativus commodi* (Pacchiarotti 2020: 30).

Despite this variation, the applicative has led until recently a comparatively quiet life as a technical label, even by the somewhat inauspicious standards of late-20th-century theoretical linguistics, where crucially related notions like *transitivity*, *valency*, and *voice* have aroused some analytical controversy and spawned a non-negligible variety of interpretations and sub-classifications. Unlike notorious terms like *subject*, *ergative*, and even *passive*, which have not only attracted considerable interest but also proven to be lasting sources of disagreement, *applicative* and the phenomena it covers seem to have drawn just the right amount of attention for the label not to become contentious.

6.2 Present-day usage

Even though applicatives are less problematic than several other linguistic terms, modern studies do show some variation regarding both the place the applicative occupies in a theory of grammar and its exact definition. This is hardly surprising: even though classical languages have similar constructions—consider Latin pairs like *ridere*

‘laugh (at)’, which can be intransitive or transitive, vs. *deridere* ‘laugh at’, which is transitive—the traditional language descriptions of antiquity provided neither the terminology nor the analytical apparatus to study such occurrences as the conspicuous grammatical phenomenon they are in many languages. Moreover, as prominent and pervasive as applicatives are in Uto-Aztecan, the descriptions of those languages have never been at center stage in Western linguistics; it is the description of familiar European languages and the theorizing they have spawned that have informed the accounts of non-European linguistic structures.

6.2.1 Applicatives and their counterparts

With respect to the company applicatives keep in linguistic theory, the general consensus among present-day scholars is that such constructions are best regarded as a kind of voice.²⁵ Functional-typological studies of transitivity, valency, and voice customarily distinguish between operations that increase the valency of the predicate and those that decrease it; applicatives are routinely placed in the first group. Another customary distinction made is whether the operation preserves the base inventory of semantic arguments or alters it. Interestingly enough, applicatives are placed either in the former or in the latter group, depending on how they are interpreted. Kroeger (2005), for instance, sees applicatives as “increase[ing] the syntactic valence of a verb by introducing a new primary object, [. . .] [t]ypically [. . .] ‘promot[ing]’ an oblique argument [. . .], and so [the applicative] *does not affect* the argument structure of the verb” (p. 273, our emphasis). By contrast, Kulikov (2011) sees applicatives as “introduc[ing] a Direct Object (lacking in the initial structure), [. . .] [which] may denote an entirely new participant in the situation, or it can be promoted from the periphery of the syntactic structure, where it surfaced as an Oblique Object in the non-derived diathesis” (p. 389), and as an example of the operations that “*do not preserve* the inventory of semantic roles” (p. 385, our emphasis).

Applicatives in which the applied phrase is a core argument (i.e., P-applicatives) constitute a special case of a morphosyntactic operation some recent studies call NUCLEATIVIZATION. Nucleatives allow a participant not encoded as a core argument in the initial construction to be encoded as a core argument in the derived construction. (Their mirror images, denucleatives, need not concern us here.) We employ Creissels’s

²⁵ Mel’čuk (2006) is a notable recent example in the functional-typological tradition that proposes a rather narrow notion of voice. Not only does that study distinguish between diathesis and voice based on the predicate-marking parameter (as others do, e.g., Kulikov 2011 and Zúñiga and Kittilä 2019), but it also distinguishes categories like “active”, “passive”, and “reflexive” (i.e., Mel’čuk’s “voices”) from those like “causative”, “decausative”, and “applicative” (i.e., his “[de-]transitivizers”, which “are similar to voices in that they also entail a modification of the basis diathesis” but “express some [essentially additional] propositional meaning”, p. 194).

(forthcoming) use of the term, according to which nucleatives distinguish an S/A and a P version, and P-applicatives are a special case of the latter. Note from Table 8 that, by definition, applicatives targeting lower-prominence (i.e., non-core) grammatical relations are not nucleatives.²⁶

Table 8: Applicatives and syntactic types of nucleatives.

Status of new argument			
S/A	P	D	X
S/A-nucleatives	P-nucleatives = P-applicatives	D-applicatives	X-applicatives

Incidentally note that portative constructions mentioned in Section 4.1 are problematic neither for the definition of applicative employed in the present book nor for how we propose to capture different types of applicatives. In our view, the Caddo portative as described by Melnar (1998) is simply a P-applicative.

Zooming in on different types of nucleatives, and also following Creissels (forthcoming), we distinguish between agentive and non-agentive S/A-nucleatives here; we can additionally distinguish the same semantic types of P-nucleatives (see Table 9).²⁷ Some examples follow.

Table 9: Semantic and syntactic types of nucleatives.

S/A-nucleatives		P-nucleatives	
Agent	non-Agent	Agent	non-Agent
causative	non-causative	non-applicative	applicative
S/A-nucleatives (25c) and (26f)	S/A-nucleatives (69) and (70a)	P-nucleatives (70b)	P-nucleatives

This chapter has already provided numerous examples of applicative (P-)nucleatives, which we neither repeat nor cross-reference here; for examples of causative S/A-nucleatives, see Examples (25c) and (26f). Example (69) below from Ilocano shows a

²⁶ Zúñiga and Kittilä (2019) use the term *nucleativization* for the installment of arguments in semantic structure irrespective of their realization, whereas Creissels (forthcoming) frames the concept—as we do here—in terms of the (semantic-)syntactic roles S, A, P, etc. In addition, Zúñiga and Kittilä’s (2019) employ labels for language-specific grammatical relations and consequently distinguish between subjective and objective nucleatives.

²⁷ Zúñiga and Kittilä (2019) distinguish between subjective and objective nucleatives. Note that these authors’ taxonomy regards causatives as prototypically subjective and applicatives as prototypically objective.

non-causative S/A-nucleative; the clause corresponds to a construction combining the effects of applicativization and passivization. Beneficiaries can simply appear in an oblique role in Ilocano clauses, but, thanks to the circumfix *i- . -an* (i.e., the so-called benefactive voice marker), the predicate ‘buy’ can also accommodate such participants in S/A role:

- (69) Ilocano (Philippine Austronesian; Rubino 2005: 337)
I-gatáng-an=n=ak man iti bagás.
 BV-buy-BV=2/3SG=1SG.ABS please OBL rice
 ‘Please buy some rice for me.’

Example (70b) illustrates a non-applicative P-nucleative; the clause corresponds to a construction combining the effects of causativization and the reversal of grammatical relations without detransitivization. Mapudungun *l*-causatives often behave in a familiar way: they install a causer-Agent in the clause, the erstwhile argument in S/A role appears in P role, and the verb is in the (unmarked) Agent Voice (70a). Nevertheless, when an obviative/non-topical 3rd person acts on a proximate/topical 3rd person, as in (70b), the syntax of the language requires that the former be in P role and the latter in S/A role; the verb is in the inverse-marked Patient Voice instead:

- (70) Mapudungun (p.k. and Golluscio 2007: 211; orthography and glosses adapted)
- a. *Ti wentru aye-l-fi-i ta malen.*
 DET man laugh-CAUS-3.P-IND[3] DET girl
 ‘The man (PROX) made the girl (OBV) laugh.’
- b. *Tañi chaw aye-l-e-i-mew ta malen.*
 3.PSR father laugh-CAUS-INV-IND-3.A[3] DET girl
 ‘The girl’s father (OBV) made her (PROX) laugh.’
 (Lit. ‘Her father made the girl laugh.’)

6.2.2 Applicatives and their types

With respect to how broadly applicatives are defined in the recent literature, there is more variation than regarding their place in theories of grammar. Our term is broader than Kulikov’s (2011), for instance, whose applicative is limited to our P-applicatives; this author suggests using the label “benefactive” for D-applicatives and does not address X-applicatives. Further note that our terminology is not explicitly framed in terms of prototype vs. periphery—unlike Zúñiga and Kittilä’s (2019), which distinguishes prototypical applicatives, which target direct/primary objects, from non-prototypical applicatives, which target grammatical relations of lower prominence, e.g., indirect/secondary objects and obliques. (We will return to the prototype vs. periphery issue further down.)

Our applicatives have the syntactic status of the applied phrase in the applicative construction as an explicit parameter of variation, and are therefore subclassified into P-, D-, and X-applicatives; the status of the companion non-agentive argument in the applicative clause (if any) is an additional parameter of variation, captured by the distinction between symmetrical and asymmetrical. By contrast, Beck’s (2009: 539–540) taxonomy conflates these two parameters. He first distinguishes direct applicatives, which “realize the applied object as a direct object”, from non-direct applicatives, which “add an additional indirect or oblique object”. Then he says that a third type might be worth distinguishing, but instead of subclassifying his non-direct applicatives (as we do), he splits up his first type: while one subtype of direct applicatives of transitive stems “add a direct applied object, displacing the original direct object”, this additional type “creates ditransitives with equally ranked (Upper Necaxa Totonac [. . .]) or symmetrical objects (Kichaga [. . .])” (p. 540).

Table 10 below compares these three different terminologies with the one we use it in this book (which is the same as in Creissels, forthcoming).

Table 10: Some syntactic types of applicatives.

	P		D	X
Kulikov (2011)	applicatives		benefactives	—
Zúñiga and Kittilä (2019)	prototypical applicatives		non-prototypical applicatives	
Beck (2009)	direct applicatives 1	direct applicatives 2	non-direct applicatives	
This book	P-applicatives asymmetrical	D-applicatives symmetrical	X-applicatives	

At their most exclusive, definitions of applicative constructions use the term only for a clause type that grants direct object status to a non-agentive adjunct of a related, base, construction. Until relatively recently and on both sides of the functionalist-formalist divide—at least before Baker’s proposed extension, see further down—overt morphological marking on the predicate was normally seen as a requisite as well. Such an arguably rather narrow understanding of applicatives owes an important debt to studies conducted in formalist traditions (viz. Relational Grammar in the 1980s, Government and Binding in the 1980s and 1990s, Lexical Functional Grammar in the 1990s, and Minimalism in the 2000s and 2010s). As a consequence, even less restrictive notions found in the current mainstream tend to see applicativization as essentially syntactic (more specifically: valency-increasing and promotional).

Functionally oriented studies of voice and related phenomena have not fundamentally departed from this tenet (see, e.g., Peterson 2007; Kulikov 2010; Givón 2001). A case in point is Shibatani’s (1996) proposed terminology, which is superficially similar

to Kulikov's (2011). Shibatani explicitly excludes X-applicatives from his definitions but argues in favor of distinguishing his "applicatives" (= locative/instrumental P/D-applicatives) from his "benefactives" (= benefactive P/D-applicatives) rather strictly, based both on their respective semantics and on the following cross-linguistic observation: the former type "generally allow[s] intransitive bases, while [the latter] seldom admit[s] intransitive bases" (p. 160). Notice that we are not aware of many authors that follow this proposal; not even this author himself distinguished these notions as sharply in later studies (e.g., Shibatani 2006).

At their most inclusive, characterizations of applicative constructions delineate a family of clause types employed to give a selected non-agency-related element of the clause some kind of syntactic, semantic, and/or pragmatic prominence vis-à-vis the (lower) status that constituent has in the base construction. A subset of such characterizations concentrates on syntactic prominence and regards some syntactic applicative lookalikes as applicatives—but it is worth noting that such approaches have not usually made it into the functional-typological mainstream. For example, Shibatani (2006) restricts the focus of attention to constructions installing or promoting to P or D status (thereby excluding X-applicatives), but it abstracts from morphological parameters, thus conflating diathesis and voice: his "benefactive/maefactive/applicative" category subsumes Germanic and Romance external-possession constructions with unmarked verbs, the Japanese benefactive verbal applicative periphrasis with *yaru* 'give (to non-human or inferior)', and the Guarijío benefactive affixal applicative with *-ke*. Similarly, Croft (2022) distinguishes between "overtly verb-coded voice strategies" and "zero verb-coded voice strategies"; he consequently labels oppositions like the English dative and locative alternations "zero coded simple predicate [i.e., non-periphrastic, F.Z. & D.C.] strategy for applicative constructions" (pp. 280–287).

Studies in the Chomskyan tradition take a similar tack (although they usually exclude both D- and X-applicatives). Baker's (1988: 280–288) influential study of incorporation first distinguishes alternations involving Recipient-Beneficiaries and verbs marked with some (non-null) reflex of **-id* in Bantu from the English so-called dative shift by calling only the former applicatives. Then, he argues that the syntax of those two kinds of alternations is comparable, later claiming that the valency-increasing mechanism is the same in both kinds, namely preposition incorporation. Crucially, Baker ends up analyzing English verbs occurring in double-object constructions as follows: "for the relevant small and semi-idiosyncratic set of verbs, the applied affix is syntactically present but is simply not seen morphologically" (p. 284). The same reasoning and conclusions are found in Marantz (1993: 114–115), and are later applied to wider samples of languages and phenomena, for example in Jeong (2007: 3) and Pylkkänen (2008: 11–12).

It is not uncommon to find descriptive studies that work with notions that are not overly restrictive, presenting applicatives as coming in "prototypical" and "peripheral" versions—occasionally framed in terms of "canonical" and "non-canonical" versions. First, applicative constructions are seen as clauses typically headed by predicates that are overtly derived from those heading base constructions; "unmarked applicatives" are regarded as non-canonical. Second, the syntactic status of the applied phrase in the

AC is seen as prototypically being the P role, that is, that of a direct or primary object; applicatives featuring less prominent syntactic roles are regarded as non-canonical. Third, the canonical applicative construction is an optional variant, equivalent in terms of its truth value to the base construction; ACs that do not have a monoclausal BC counterpart (i.e., “non-promotional applicatives”) are seen as non-canonical. Lastly, the semantic role borne by the applied phrase is required to be not only non-agentive but also peripheral; applicatives targeting central non-agentive roles like Theme and Patient, but also arguably intermediate roles like Stimulus and some Location-related notions are considered non-canonical.²⁸

Our definition treats “unmarked applicatives” as an oxymoron—more accurately: applicativized predicates are morphologically marked by definition; constructions that are analogous but lack morphological marking are called “syntactic lookalikes” here. Regarding the other three domains, however, our definition simply includes the non-canonical cases: the exact grammatical relation borne by the applied phrase, the optionality or obligatoriness of the AC to express a given state of affairs, and the exact (kind of) semantic role and are left open; rather than definitional stipulations, they are parameters of variation. Therefore, our terminology is simultaneously narrower and broader than many, if not most, canon-based terminologies. It is narrower because we do not treat the boundary between applicatives and their syntactic and morphological lookalikes as fuzzy: it may be that different languages show different frequencies of tokens or types of particular applicatives and lookalikes, but such quantitative assessment does not inform the notional distinction between the phenomena. Our terminology is also broader, because we explicitly take different syntactic, morphological, and semantic subtypes into account, but especially because we abstain from stipulating that one particular bundle of features is the prototype and others are deviations thereof.

Irrespective of the terminological treatment given to “non-canonical applicatives”, there are good reasons to have a closer look at such phenomena, and the reader is referred to Pacchiarotti and Zúñiga (2022) for recent contributions to our knowledge of some of them. The phenomena specifically showcased in that book include co-expression patterns / instances of polysemy that are not restricted to other voice categories (e.g., denominal and deadjectival verbalization, nominalization, and relativization), functions of applicative-like morphology that are not semantically neutral (e.g., covering aspectuality, pluractionality, and intensity), and functions that are related to information-structure categories (e.g., focalization and topic continuity). It was not the editors’ intention to use the results of such explorations to justify broadening or narrowing some received definition, however; rather, they thought it was important to use

²⁸ See in this context Lehmann and Verhoeven (2006) for a terminological proposal that has not been widely accepted. These authors argue in favor of recognizing a whole range of transitivity processes targeting non-agentive participants in Yucatec Maya. This range can be seen as having two poles: one for lexical derivation that targets central semantic roles with syntactic consequences (“extraversion”) and another for syntactically regular promotion that targets peripheral semantic roles (“applicativization”).

them to deepen our understanding of applicatives and lookalikes in particular, as well as of phenomena related to transitivity, valency, and voice in general.

Since the turn of the century, mainstream functional-typological linguistics has tended to favor grammatical-category labels that are not excessively narrow on the one hand and, at least partly, to move away from prototype-vs.-periphery characterizations on the other (especially those that do not address the radial structure of the notions explicitly, as well as those with fuzzy boundaries).²⁹ It is in this spirit that we propose the definition of applicative constructions used for the present book. Taking into account predicate morphology and syntactic status of the applied phrase here only, our applicative covers the uncontroversial case: the structure represented in cell (h) vis-à-vis cell (a) in Table 11 (adapted from Table 3 in § 1.2.3). Following several other studies, we have broadened the applicative to include the structure depicted in cell (g). Following Creissels (forthcoming), we have added the structure of cell (f) to the category, and we have made explicit that the oblique X in cell (a) need not be expressible.

Table 11: Selected applicatives and applicative lookalikes.

Status of non-S/A argument		Predicate morphology			
		Unmarked		Marked	
Oblique		(a)	S/A V (X)	(e)	S/A V' (X)
		(b)	S/A V X'	(f)	S/A V' X'
Non-oblique	Non-core	(c)	S/A V D	(g)	S/A V' D
	Core	(d)	S/A V P	(h)	S/A V' P

We have stopped short of including in our definition the two most prominent related structures of the table, that is, those represented in cells (d) and (e). The former is a syntactic lookalike; including it would equate applicativization with a syntactic operation, namely X-to-P promotion, and blur the distinction between diathesis and voice, thereby additionally contradicting the spirit of the term as originally employed in the description of Classical Nahuatl (there, it refers to a derived verb form). The structure represented in cell (e) is a morphological lookalike; including it would equate the applicative with the overt predicate marker, which would in turn presumably correlate with some broad notion of “functional” (i.e., semantic and/or pragmatic) prominence of the argument in non-S/A role. Our notion is, we think, reasonably conservative (since we do not abstract from either the morphology or the syntax) while also reasonably non-

²⁹ An example of an explicit (if uninfluential) canon-based approach is Dixon and Aikhenvald (1997, 2000) and especially Dixon (2012: Ch. 25), with its rather restrictive definition of the applicative prototype and several “extensions” (e.g., he regards our obligatory applicative as peripheral and labels it “quasi-applicative”).

restrictive (since we do not require the applied phrase to be in P role). Our goal has not been to define the “correct” applicative but, rather, to make the analysis of the variation found with applicatives and applicative-like constructions across and within languages as consistent and principled as possible.

7 Structure, coverage, and coherence of the present book

The first part of this book contains this introductory overview; a questionnaire designed to be used as a brief checklist for exploring applicative constructions in individual languages or language groups (Ch. 2); and a very short chapter that includes maps depicting the approximate geographical locations of the languages addressed in the book, as well as those languages’ genealogical affiliations (Ch. 3). The second part includes twenty-five case studies, grouped in three sections according to whether they deal with individual languages or with areal or genealogical overviews. The third part includes a chapter that comments on several terminological and theoretical issues raised by this introductory chapter (POLINSKY); a chapter that provides an update of Polinsky’s (2013) typological survey of applicatives (MOROZ AND POLINSKY); and a chapter summarizing what we believe to be the main results of the case studies (CREISSELS AND ZÚÑIGA).

The chapters in the second part of the book deal with a sample of individual languages or language groups that we thought were necessary, important, or especially interesting in a comparative survey of applicative constructions. Chapters covering phenomena found in the Americas include four that address three groups identified by MOROZ AND POLINSKY. GERDTS—who has already co-authored a comprehensive survey of applicatives in Salishan in general (Kiyosawa and Gerdts 2010)—describes in detail the applicatives found in the variety of Halkomelem spoken in Vancouver Island. MONTGOMERY-ANDERSON describes the applicatives of the Mayan family, with a special focus on the Chontal language of southern Mexico. Reflecting both the historical importance and the comparative significance of Uto-Aztecan applicatives, two chapters cover considerable part of the phenomena found in those languages: THORNES covers languages from the Northern branch, and ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ cover languages spoken in Northwestern Mexico. Several chapters cover families and languages beyond those mentioned by MOROZ AND POLINSKY’s survey: MITHUN gives an overview of the applicatives found in Eskimo-Aleutian, LOCKWOOD AND MACAULAY survey those found in Algonquian, and HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS present applicatives and lookalikes in Otomi and Zapotec. BECK outlines applicativization in a Totonacan language spoken in south-central Mexico; CENSABELLA covers Toba/Qom, a Guaicurian language spoken in northern Argentina; and ZÚÑIGA covers Mapudungun, an isolate of southern Chile and south-central Argentina.

Regarding Africa, MOROZ AND POLINSKY say that applicatives are found “mostly in Bantu”, and two chapters address them here: PACCHIAROTTI gives an overview for the

family, and CREISSELS covers in detail the applicatives of Tswana, a language spoken in Botswana and South Africa. Also belonging to the Niger-Congo group, Atlantic languages have been comparatively neglected in the literature dealing with voice(-related) phenomena; VOISIN AND CREISSELS's chapter contributes to rectifying this neglect. PAYNE surveys the applicatives of Nilotic (Nilo-Saharan), VANHOVE those of Cushitic (Afro-Asiatic), and AMBERBER zooms in on the applicatives of Amharic (Ethio-Semitic).

MOROZ AND POLINSKY also mention Austronesian in the western Pacific region. Two chapters deal with those languages, namely McDONNELL AND TRUONG, who cover applicatives in languages of western Indonesia, and MUSGRAVE, WAYAN ARKA, AND RAJEG, who cover them in Standard Indonesian. Two further chapters complete the picture for that part of the world: FOLEY and AUSTIN survey applicatives in Papuan and Australian languages, respectively.

Lastly, Polinsky (2013) briefly commented on “the dearth of applicatives in Eurasia” and mentioned some Northwest Caucasian languages as an exception to the rule. ARKADIEV, LANDER, AND BAGIROKOVA cover precisely that family; TUTE surveys the applicatives of Kartvelian in the southern Caucasus. The two final chapters address groups not singled out by Polinsky's 2013 piece: JACQUES AND LAHAUSOIS cover Kiranti (Sino-Tibetan), and ZÚÑIGA, ARKADIEV, AND HEGEDŰS cover applicativizing preverbs in a number of European languages (Germanic, Balto-Slavic, and Hungarian).

The titles in the *Comparative Handbooks of Linguistics* series face the challenge of striking a balance between comparability across chapters and state-of-the-art analytic coverage. In order to ensure comparability, we asked our authors to work with both a significantly shorter version of this introductory chapter (in the form of an 8,500-word position paper) and the two-page questionnaire mentioned above, as well as to follow a thematic blueprint “morphology-syntax-semantics-lookalikes” rather closely in the conclusions section of their own chapters. The purpose of the position paper and the questionnaire was to provide the individual contributors with a suitable descriptive meta-language—which is, ideally, both theoretically neutral and descriptively effective—and a frame of reference. In order to ensure adequate analytic coverage, we explicitly gave our authors relatively free rein not only as to how they may want to structure their chapters—the thematic blueprint worked better in some instances than in others—but also as to which phenomena they may want to include in their discussion in addition to those explicitly mentioned in the questionnaire.

Consequently, chapters dealing with individual languages or groups first give an introduction to the language(s) covered and their basic morphosyntactic structures, and then survey morphological, syntactic, and semantic features of the applicatives and lookalikes found in them, but they do not necessarily follow this structural template. For example, ZÚÑIGA's chapter on Mapudungun follows it rather closely, but CREISSELS's chapter on Tswana does not, favoring instead a structure largely based on syntactic aspects of the phenomena it surveys. (We sent early versions of these two chapters to our authors alongside the position paper and the questionnaire.)

Even though our contributors had considerable leeway when it came to structuring their chapters, many did follow the thematic template, thereby giving a distinct formal coherence to the book. We probably erred on the side of restrictiveness by imposing some terminological coherence as well—hopefully in a reasonable way. For instance, some Mesoamerican studies have employed the term *registration applicative* to refer to some constructions we prefer to treat as lookalikes, and we asked Néstor Hernández-Green and Oscar López Nicolás to exert special care when using potentially conflicting terms and to make the correspondences between the labels used by Mesoamericanists and ours explicit. By the same token, Kartvelian studies traditionally employ the term *version* to refer to the relevant part of those languages' applicative morphology, and we asked Kevin Tuite to make sure that both Kartvelologists and typologists could follow his presentation and analysis comfortably. We proceeded in the same manner regarding the traditional Algonquianist terms *relative preverbs* and *relative roots* in Hunter Lockwood and Monica Macaulay's contribution.

Abbreviations

A	Agent-like argument of bivalent/trivalent predicate
AC	applicative construction
ACC	accusative
AI	animate intransitive
AIO	animate intransitive with an object
ALC	applicative lookalike construction
ANIM	animate
ANTIP	antipassive
AOR	aorist
APPL	applicative
AppP	applied phrase
ART	article
ASP	aspect
AV	Agent voice
BC	base construction
CAUS	causative
COMPL	completive
CTR	control transitivity marker
CSTR	construct form marker
CVB	converb
D	Recipient-like argument of trivalent predicate
DAT	dative
DECL	declarative
DEF	definite
DEM	demonstrative
DET	determiner
DETR	detransitive

DIM	diminutive
DIR	direct
DIREC	directional
DITR	ditransitive
ENUNC	enunciative
EP	epenthesis
ERG	ergative
F	feminine
FOC	focus
FUT	future
FV	final vowel
GEN	genitive
HON	honorific
IMM	immediate
IMP	imperative
IN	incorporated nominal
INAN	inanimate
INCOMPL	incompletive
IND	indicative
INDIR	indirect
INS	instrumental
INTR	intransitive
IPFV	imperfective
LK	linker
LOC	locative
MID	middle
MONOTR	monotransitive
NFIN	nonfinite
NOM	nominative
NSPEC	nonspecific
NTR	noncontrol transitivizer
OBJ	object
OBL	oblique
OBLREG	oblique registration
OBV	obviative
P	Patient-like argument of bivalent predicate
PASS	passive
PERF	perfect
PFV	perfective
PL	plural
POSTP	postposition
PRI	primary
PRIOR	prioritive
PROG	progressive
PROX	proximate
PSR	possessor
PST	past
PTCL	particle
PVB	preverb

QUOT	quotative
REC	recent
S	single argument of monovalent predicate
SBJ	subject
SEC	secondary
SG	singular
SR	semantic role
TA	transitive animate
TAM	tense-aspect-mood
TI	transitive inanimate
TR	transitive
TRITR	tritransitive
Vs	verbs
1, 2, 3	grammatical persons
I, II, . . .	noun classes
-	default morpheme boundary
=	clitic morpheme boundary
#	phonological word boundary

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Fernando Zúñiga

2 Questionnaire on applicative constructions

Please note that the structure of the contributions need not reflect the order of the questions in the questionnaire, but all the points listed in the questionnaire are expected to be addressed in one way or another and should be briefly recapitulated in the concluding section of the article.

The language(s)

Please give (i) a general characterization of the language(s) in terms of geography, genealogy, contact, sociolinguistic status, dialectal variation, etc. In case you are dealing with an individual language, please also provide the ISO and Glottolog codes that identify it. Either as an additional subsection or as a separate article section, please give (ii) a short survey of the basic elements of clause structure necessary to understand your contribution. In language-family contributions, the general characterization part will probably need to be somewhat longer than a mere couple of sentences and might even come close to 300 or 400 words. With languages whose morphology and/or syntax is particularly complex, the morphosyntactic essentials part will probably take up most of the space. Whatever kind of balance you end up striking between both introductory subsections, please make sure these two parts do not exceed 1,500 words in total length.

1 Morphology

- 1.1 How are the main ACs of the language(s) marked on the predicate (e.g., affixally, prosodically, with an auxiliary, a functional verb, a [clitic?] particle. . .)?
- 1.2 If there are applicative serial verb constructions or converbal constructions, which verbs are involved, how can they be described structurally and functionally? How grammaticalized are the functional verbs?
- 1.3 If there is allomorphy for the individual markers, what conditions it (phonology, morphology, lexical predicate class [e.g., valency-based])?
- 1.4 Do applicativized verbs show comparable inflectional paradigms to those of their base counterparts, or are they defective/restricted/regularized. . .?

Acknowledgments: I am indebted to Denis Creissels and Sara Pacchiarotti for their comments on earlier versions of this questionnaire.

2 Syntax

- 2.1 What is the syntactic status of the applied phrase in the different ACs in the language(s)?
- 2.2 Does the syntactic status of the applied phrase's companion arguments/adjuncts change between the BC and the AC?
- 2.3 Are there restrictions on the stacking/combination of voice operations? Is applicativization required, allowed, dispreferred, blocked, etc., in the context of nominal incorporation, (anti-)passivization, (anti-)causativization, reflexives, reciprocals. . . ?
- 2.4 Are some ACs a special subset of ditransitive/double-object constructions in terms of argument-realization specifics, or are they only morphologically different from underived predicates belonging to the same valency class?
- 2.5 How rigid/flexible is the assignment of case/agreement frames to ACs when compared to BCs? See Exx. (19–20) in the position paper, where AppPs in Mapudungun are arguably not simply default primary objects.
- 2.6 Does applicativization condition the access of non-core syntactic arguments to operations such as relativization or focalization?

3 Semantics

- 3.1 Are different markers specialized for different semantics (e.g., valency and semantic role)?
- 3.2 Which semantic roles can be expressed by the applied phrase? Are there semantic roles that can be expressed only by means of an applicative construction (in either monoclausal or biclausal constructions)? For instance, the only way to express the location 'at my place' in Blackfoot (1) is as the secondary object of an applicativized verb (i.e., there is no adjunct equivalent to its English translation with an adposition):

(1) Blackfoot (Frantz 2009: 94)

<i>It-á-ooyi-wa</i>	<i>n-ookóówa-yi.</i>
APPL-DUR-eat.AI-PROX.SG	1-home-INAN.SG
'S/he eats at my place.'	

- 3.3 If a given semantic role can be expressed both in a BC and an AC, is there a semantic difference between the Applied phrase and its counterpart in the BC (e.g., affectedness, individuation, specificity, . . .)? Are there other semantic differences between the AC and the BC (e.g., aspect and manner)?
- 3.4 Is there a pragmatic difference between the applied phrase and its counterpart in the BC (e.g., topicalization, [contrastive] focalization)? Are there other pragmatic differences between the AC and the BC (e.g., theticity)?
- 3.5 If both a BC and an AC are available with a given verb (irrespective of whether there is a semantic opposition or not), is there a discourse-sensitive specificity to their distribution?

4 Lookalikes

- 4.1 If there is no *bona fide* applicative marking on the predicate, are there (quasi-) productive uncoded alternations (e.g., *English I bought flowers for you* vs. *I bought you flowers*)? How can they be described structurally and functionally? How are they conditioned/licensed?
- 4.2 Are there markers that may have turned from erstwhile applicatives into strictly valency-neutral markers (e.g., spatial/directional markers, politeness markers. . .)?

Abbreviations

AI	animate intransitive
APPL	applicative
DUR	durative
INAN	inanimate
PROX	proximate
SG	singular

References

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Denis Creissels and Fernando Zúñiga, with George Moroz

3 Languages examined or referred to in the present book

1 The maps

Maps 1–8 were created by George Moroz with the help of the R (R Core Team 2023) package *lingtypology* (Moroz 2017).

2 The classification

Languages are listed alphabetically within each of the following five areas: North America, South America, Africa, Pacific, and Eurasia.

The genetic affiliation of the languages listed in this index is provided along the lines of the classification of languages adopted in WALS Online (Dryer and Haspelmath 2013), with only some minor modifications that are commented in footnotes. For languages that are not explicitly listed in WALS, the classification copies that of closely related languages that feature in WALS and for which it can be taken for granted that they belong to the same genus.

Apart from pidgins and creoles, for which no genetic affiliation is proposed in WALS, the general principle of this classification is that, as a rule, it does not mention the intermediate groupings that appear in other classifications, restricting to only two levels: genus and family. FAMILY refers to the highest level widely accepted by specialists, while GENUS is commented on in WALS Online (<https://wals.info/languoid/genealogy>) as follows:

The notion genus is explained in Dryer (1989). It is intended as a level of classification which is comparable across the world, so that a genus in one family is intended to be comparable in time depth to genera in other parts of the world. The choice of term is intended to match the general idea of genus in biological classification, where a genus is a set of species that are clearly closely related to each other (and where words in everyday language often correspond to genera rather than species). In the genealogical classification of languages, a genus is a group of languages whose relatedness is fairly obvious without systematic comparative analysis, and which even the most conservative “splitter” would accept. Genealogical groups deeper than a genus are often less obvious and in the absence of detailed comparative work are often not universally accepted. If there is evidence of time depth of groups, the genus would not have a time depth greater than 3500 or 4000 years. A genus may have a time depth much less than this, but if the time of the split of one group of languages from other languages in the family appears to be greater than 4000 years, then this constitutes a reason to say that this group of languages is a separate genus.

Here, as in WALS, levels of classification lower than that of genus are not taken into account. For example, the classification of Somali refers to the genus “Lowland East

Cushitic”, ignoring the lower-level groupings “Nuclear Lowland East Cushitic” and “Omo-Tana”. Similarly, Northern Paiute is classified as a member of the Northern Uto-Aztecan genus, ignoring the lower-level grouping “Numic”.

An intermediate level between genus and family, that of subfamily, is only provided when the genetic affiliation of the language in question is more commonly characterized with reference to the subfamily than to the genus to which it belongs. For example, Baule is classified here as “Baule, Tano, Kwa, Niger-Congo”. The reason is that, in the literature, whatever the validity of the Kwa subfamily within the Niger-Congo family may be, “Kwa”, rather than “Tano”, is the label commonly used to characterize the position of Baule within the Niger-Congo family. More generally, the subfamilies of Niger-Congo (Atlantic, Kwa, Benue-Congo), Afroasiatic (Cushitic) and Eastern Sudanic (Nilotic) that do not meet the definition of genera (and whose very validity as genetic groupings is sometimes questionable) but are commonly mentioned in the classification of Niger-Congo, Afroasiatic, and Eastern Sudanic languages have been systematically added.

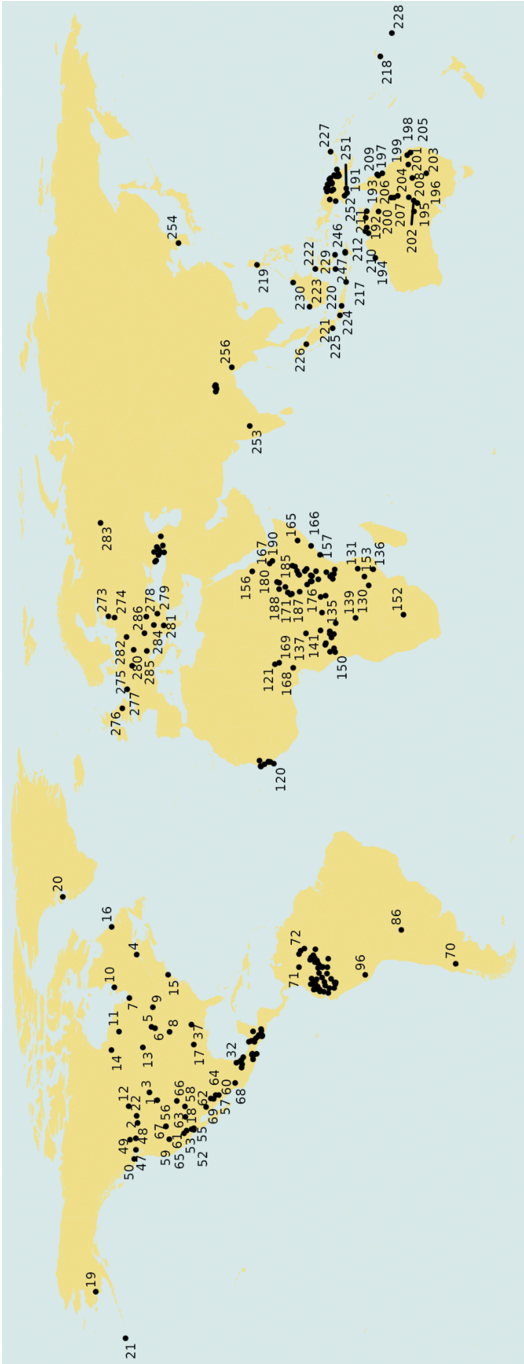
This said, some particular cases must be considered. First, some groups of lects commonly treated as constituting a single (macro-)language, like the dialectal varieties of Wolof, are commonly regarded as isolates within a genetic grouping—in the case of Wolof, North Atlantic = Atlantic = Niger-Congo—whose time depth exceeds that admitted for genera. In such cases, the name of the language is repeated as that of the genus that coincides with the (macro-)language in question. For example, Wolof is classified here as “Wolof (language), Wolof (genus), Atlantic (subfamily), Niger-Congo (family)”.

A second particular case is that of languages belonging to a genus that is not commonly regarded as included into a higher-level family (and consequently, also has the status of family in the sense given here to this term). In such cases, the name of the language is followed by a single label referring to the genus. Mayan languages are a case in point. For example, K’iche’ is classified here as “K’iche’ (language), Mayan (genus and family)”.

The third particular case concerns language with no known relatives, such as Cofán (Colombia). In such cases, the name of the language or language variety is followed by a single label that simply reproduces the name of the language, for example “Cofán (language), Cofán (genus and family)”.

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Map 1: World.

NORTH AMERICA		
language	genetic affiliation	number
Acjachemem	Northern Uto-Aztecan, Uto-Aztecan	52
Arapaho	Algonquian, Algic	1
Blackfoot	Algonquian, Algic	2
Caddo	Caddo, Caddoan	17
Cahuilla	Northern Uto-Aztecan, Uto-Aztecan	53
Central Alaskan Yup'ik	Eskimo, Eskimo-Aleut	19
Chalcatongo Mixtec	Mixtec, Oto-Manguean	43
Cheyenne	Algonquian, Algic	3
Chickasaw	Muskogean	37
Chontal	Mayan	24
Classical Nahuatl	Aztecan, Uto-Aztecan	54
Cupeño	Northern Uto-Aztecan, Uto-Aztecan	55
Ch'ol	Mayan	23
Ch'orti'	Mayan	25
Eastern Highlands Otomi	Otomian, Oto-Manguean	38
Gosiute Shoshoni	Northern Uto-Aztecan, Uto-Aztecan	56
Guarijío	Tarahumaran, Uto-Aztecan	57
Hopi	Northern Uto-Aztecan, Uto-Aztecan	58
Hul'q'umi'num	Central Salish, Saolishan	47
Innu	Algonquian, Algic	4
Itzaj	Mayan	26
Ixil	Mayan	27
Kalaallisut	Eskimo, Eskimo-Aleut	20
Kaqchikel	Mayan	28
K'iche'	Mayan	29
Ktunaxa	Kutenai	22
Menominee	Algonquian, Algic	5
Meskwaki	Algonquian, Algic	6
Moose Cree	Algonquian, Algic	7
Myaamia	Algonquian, Algic	8
Nishnaabemwin	Algonquian, Algic	9
Northern East Cree	Algonquian, Algic	10 ¹
Northern Paiute	Northern Uto-Aztecan, Uto-Aztecan	59
Northern Tepehuan	Tepiman, Uto-Aztecan	60
Northern Zapotec	Zapotecan, Oto-Manguean	39
Ojicree	Algonquian, Algic	11
Okanagan	Interior Salish, Salishan	48
Otomi	Otomian, Oto-Manguean	40
Pahka'anil	Northern Uto-Aztecan, Uto-Aztecan	61
Pima Bajo	Tepiman, Uto-Aztecan	62
Plains Cree	Algonquian, Algic	12
Poqomam	Mayan	30
Q'anjob'al	Mayan	31
Quiegolani Zapotec	Zapotecan, Oto-Manguean	44
San Felipe Otomi	Otomian, Oto-Manguean	41

¹ Southern East Cree (mentioned in Chapter 18) does not appear on the map but is spoken south of Northern East Cree.

(continued)

NORTH AMERICA		
language	genetic affiliation	number
San Lucas Quiaviní Zapotec	Zapotecan, Oto-Manguean	42
Serrano	Northern Uto-Aztecan, Uto-Aztecan	63
Shuswap	Interior Salish, Salishan	49
Sliammon	Central Salish, Salishan	50
Southeastern Huastec	Mayan	32
Southwestern Ojibwe	Algonquian, Algic	13
Swampy Cree	Algonquian, Algic	14
Tamazulápam Mixe	Mixe-Zoque	45
Tarahumara	Tarahumaran, Uto-Aztecan	64
Teotitlán Zapotec	Zapotecan, Oto-Manguean	46
Tojolabal	Mayan	33
Tselal	Mayan	34
Tsotsil	Mayan	35
Tümpisa Shoshoni	Northern Uto-Aztecan, Uto-Aztecan	65
Tz'utujil	Mayan	36
Unami	Algonquian, Algic	15
Unangan	Aleut, Eskimo-Aleut	21
Upper Necaxa Totonac	Totonacan	51
Ute	Northern Uto-Aztecan, Uto-Aztecan	66
Walapai	Yuman, Hokan	18
Western Naskapi	Algonquian, Algic	16
Western Shoshoni	Northern Uto-Aztecan, Uto-Aztecan	67
Wixárika / Huichol	Corachol, Uto-Aztecan	68
Yaqui	Cahita, Uto-Aztecan	69



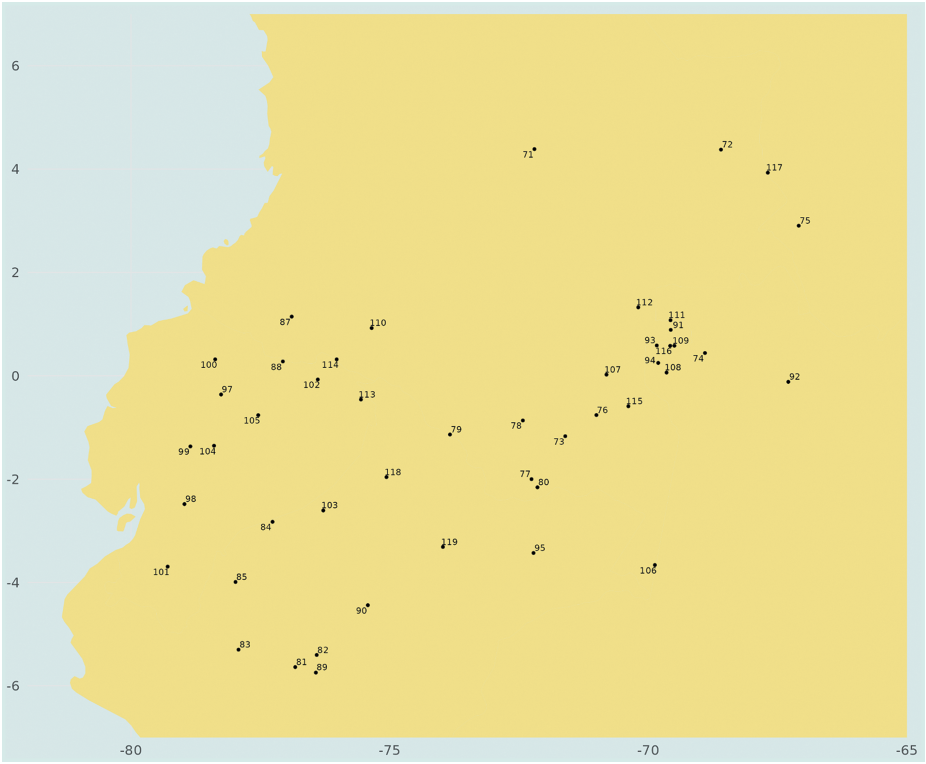
Map 2: Southern North America.

SOUTH AMERICA		
language	genetic affiliation	number
Achagua	Japura-Colombia, Arawakan	71
Aguaruna	Jivaroan	83
Arabela	Zaparoan	116
Ayacucho Quechua	Quechuan	96
Barasano	Tucanoan	107
Calderón Highland Quichua	Quechuan	97
Camsá	Camsá	87
Cañar Highland Quichua	Quechuan	98
Carapana	Tucanoan	108
Chimborazo Highland Quichua	Quechuan	99
Cofán	Cofán	88
Dâw	Nadahup	92
Desano	Tucanoan	109
Hup	Nadahup	93
Imbabura Highland Quichua	Quechuan	100
Iquito	Zaparoan	119
Kakua	Cacua-Nukak	91
Koreguaje	Tucanoan	110
Kotiria	Tucanoan	111
Kubeo	Tucanoan	112
Loja Highland Quichua	Quechuan	101
Mapudungun	Araucanian	70
Miraña	Boran	77
Muinane	Witoto, Witotoan	78
Muniche	Muniche	89
Murui	Witoto, Witotoan	79
Napo Lowland Quechua	Quechuan	102
Ocaina	Witoto, Witotoan	80
Pastaza Quechua	Quechuan	103
Piapoco	Japura-Colombia, Arawakan	72
Puinave	Puinave	117
Resígaro	Japura-Colombia, Arawakan	73
Salasaca Highland Quichua	Quechuan	104
Secoya	Tucanoan	113
Shawi	Cahuapanan	81 ²
Shiwiar	Jivaroan	84
Shiwilu	Cahuapanan	82
Siona	Tucanoan	114
Tanimuka	Tucanoan	115
Tariana	Japura-Colombian, Arawakan	74
Tena Lowland Quichua	Quechuan	105
Tikuna	Tikuna	106
Toba / Qom	Qom, Guaycuruan	86

² San Martín Quechua (mentioned in Chapter 11) does not appear on the map but is spoken south of Shawi.

(continued)

SOUTH AMERICA		
language	genetic affiliation	number
Tukano	Tucanoan	116
Urarina	Urarina	80
Wampis	Jivaroan	85
Warekena	Alto Orinoco, Arawakan	75
Yagua	Peba-Yaguan	95
Yuhup	Nadahup	94
Yukuna	Japura-Colombian, Arawakan	76



Map 3: Northwestern South America.

AFRICA		
language	genetic affiliation	number
Agar Dinka	Western Nilotic, Nilotic, Eastern Sudanic	171
Akie	Southern Nilotic, Nilotic, Eastern Sudanic	172
Alagwa	Southern Cushitic, Cushitic, Afroasiatic	154
Amharic	Semitic, Afroasiatic	191
Arbore	Lowland East Cushitic, Cushitic, Afroasiatic	155
Asimjeeg Datooga	Southern Nilotic, Nilotic, Eastern Sudanic	173
Ateso	Eastern Nilotic, Nilotic, Eastern Sudanic	174
Barbayiiga Datooga	Southern Nilotic, Nilotic, Eastern Sudanic	175
Bari	Eastern Nilotic, Nilotic, Eastern Sudanic	176
Baule	Tano, Kwa, Niger-Congo	169
Beja	Beja, Cushitic, Afroasiatic	156
Bijogo	Bijogo, Atlantic, Niger-Congo	120
Boni	Lowland East Cushitic, Cushitic, Afroasiatic	157
Burunge	Southern Cushitic, Cushitic, Afroasiatic	158
Cherang'any	Southern Nilotic, Nilotic, Eastern Sudanic	177
Chewa	Bantu, Benue-Congo, Niger-Congo	130
Chingoni	Bantu, Benue-Congo, Niger-Congo	131
Dhaasanac	Lowland East Cushitic, Cushitic, Afroasiatic	159
Dholuo	Western Nilotic, Nilotic, Eastern Sudanic	178
Ding	Bantu, Benue-Congo, Niger-Congo	132
Elmolo	Lowland East Cushitic, Cushitic, Afroasiatic	160
Gedee	Highland East Cushitic, Cushitic, Afroasiatic	161
Gisamjanga Datooga	Southern Nilotic, Nilotic, Eastern Sudanic	179
Gombe Fula	Fula-Serer, Atlantic, Niger-Congo ³	121
Iraqw	Southern Cushitic, Cushitic, Afroasiatic	162
Jóola Fóoñi	Joola, Atlantic, Niger-Congo	122
Jumjum	Western Nilotic, Nilotic, Eastern Sudanic	180
Kikuyu	Bantu, Benue-Congo, Niger-Congo	133
Kongo ya Leta	Bantu, Benue-Congo, Niger-Congo	134
Laalaa	Cangin, Atlantic, Niger-Congo	123
Lango	Western Nilotic, Nilotic, Eastern Sudanic	181
Lengola	Bantu, Benue-Congo, Niger-Congo	135
Lomwe	Bantu, Benue-Congo, Niger-Congo	136
Londo	Bantu, Benue-Congo, Niger-Congo	137
Luba-Kasai	Bantu, Benue-Congo, Niger-Congo	138
Lunda	Bantu, Benue-Congo, Niger-Congo	139
Maasai	Eastern Nilotic, Nilotic, Eastern Sudanic	182
Mabaan	Western Nilotic, Nilotic, Eastern Sudanic	183
Mandinka	Central Mande, Mande ⁴	170
Mankanya	Manjaku-Mankanya, Atlantic, Niger-Congo ⁵	124

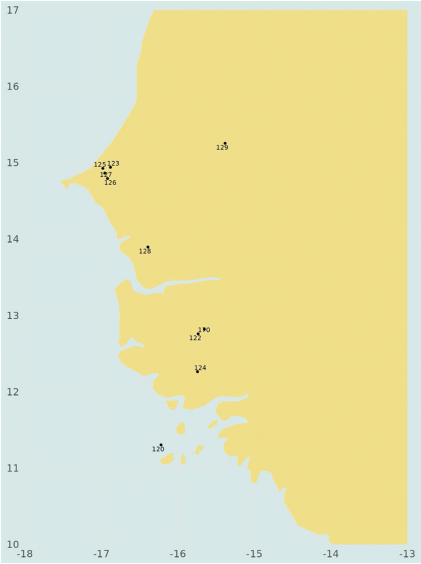
³ *Peul* is the French name of the language called *Fula* in English.

⁴ In the Mande family, West Mande does not meet the definition of a genus, and is best regarded as a subfamily.

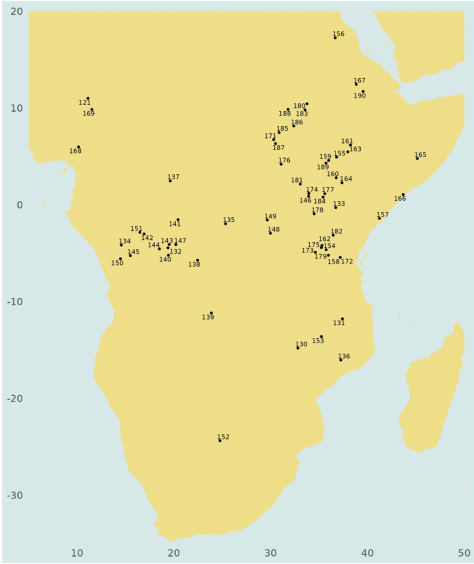
⁵ Manjaku and Mankanya belong to the same genus, but there is no reason to select “Manjaku” rather than “Mankanya” as a label for the genus that includes Manjaku and Mankanya.

(continued)

AFRICA		
language	genetic affiliation	number
Mankon	Wide Grassfields, Benue-Congo, Niger-Congo	168
Mbuun	Bantu, Benue-Congo, Niger-Congo	140
Mongo-Nkundo	Bantu, Benue-Congo, Niger-Congo	141
Nandi	Eastern Nilotic, Nilotic, Eastern Sudanic	184
North Boma	Bantu, Benue-Congo, Niger-Congo	142
Ndut	Cangin, Atlantic, Niger-Congo	125
Ngwi	Bantu, Benue-Congo, Niger-Congo	143
Noon	Cangin, Atlantic, Niger-Congo	126
Northern Luo	Western Nilotic, Nilotic, Eastern Sudanic	185
Nsong	Bantu, Benue-Congo, Niger-Congo	144
Ntandu	Bantu, Benue-Congo, Niger-Congo	145
Nuer	Western Nilotic, Nilotic, Eastern Sudanic	186
Nyole	Bantu, Benue-Congo, Niger-Congo	146
Nzadi	Bantu, Benue-Congo, Niger-Congo	147
Oromo	Lowland East Cushitic, Cushitic, Afroasiatic	163
Palor	Cangin, Atlantic, Niger-Congo	127
Reel	Western Nilotic, Nilotic, Eastern Sudanic	187
Rendille	Lowland East Cushitic, Cushitic, Afroasiatic	164
Rundi	Bantu, Benue-Congo, Niger-Congo	148
Rwanda	Bantu, Benue-Congo, Niger-Congo	149
Seereer	Fula-Serer, Atlantic, Niger-Congo	128
Shilluk	Western Nilotic, Nilotic, Eastern Sudanic	188
Sikongo	Bantu, Benue-Congo, Niger-Congo	150
Somali	Lowland East Cushitic, Cushitic, Afroasiatic	165
Tiene	Bantu, Benue-Congo, Niger-Congo	151
Turkana	Eastern Nilotic, Nilotic, Eastern Sudanic	189
Tswana	Bantu, Benue-Congo, Niger-Congo	152
Tunni	Lowland East Cushitic, Cushitic, Afroasiatic	166
Wolof	Wolof, Atlantic, Niger-Congo	129
Xamtanga	Central Cushitic, Cushitic, Afroasiatic	167
Yao	Bantu, Benue-Congo, Niger-Congo	153



Map 4: Western Africa.

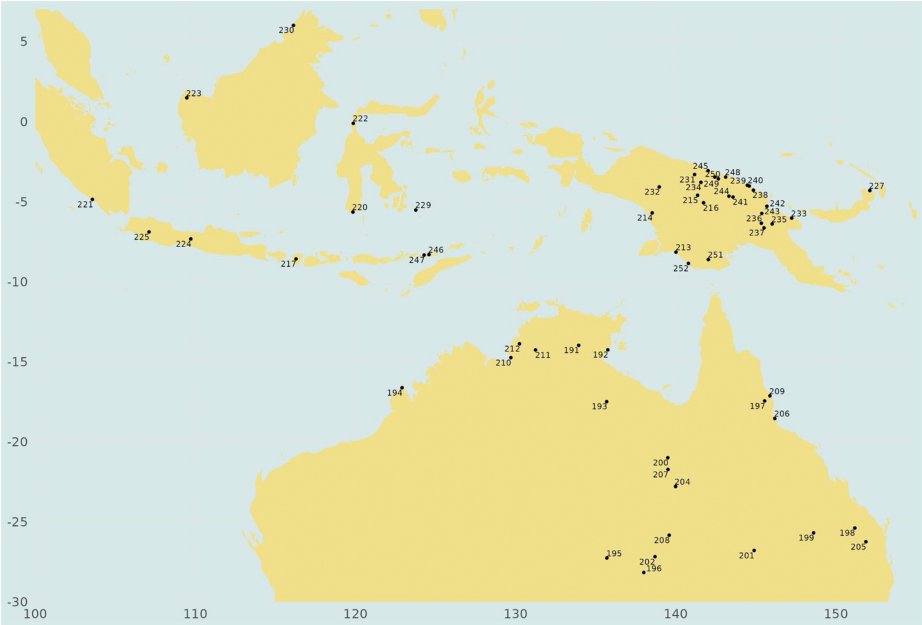


Map 5: Eastern and southern Africa.

PACIFIC		
language	genetic affiliation	number
Abui	Alor-Pantar, Greater West Bomberai	246
Alamblak	Sepik Hill, Sepik	244
Amele	Mabuso, Trans-New Guinea	242
Ampenan Sasak	Malayo-Sumbawan, Austronesian	217
Arabana-Wangkanguru	Central Pama-Nyungan, Pama-Nyungan	195
Aruamu / Mikarew	Ruboni, Ramu-Lower Sepik	238
Bardi	Nyulnyulan	194
Barupu	Warupu, Skou	245
Boumaa Fijian	Oceanic, Austronesian	218
Coastal Marind	Marind-Yaqai, Trans-New Guinea	213
Central Asmat	Asmat-Kamrau Bay	214
Dalabon	Marne, Gunwinyguan	191
Diyari	Central Pama-Nyungan, Pama-Nyungan	196
Dyirbal	Northern Pama-Nyungan, Pama-Nyungan	197
Fore	Fore-Gimi, Trans-New Guinea	237
Goreng-Goreng	Southeastern Pama-Nyungan, Pama-Nyungan	198
Gungabula	Northern Pama-Nyungan, Pama-Nyungan	199
Hua	Siane-Yagaria, Trans-New Guinea	236
Ilocano	Northern Luzon, Austronesian	219
Imonda	Border	231
Kalkatungu	Northern Pama-Nyungan, Pama-Nyungan	200
Kopar	Lower Sepik, Ramu-Lower Sepik	239
Lower Grand Valley Dani	Dani, Trans-New Guinea	232
Makasar	South Sulawesi, Austronesian	220

(continued)

PACIFIC		
language	genetic affiliation	number
Margany	Northern Pama-Nyungan, Pama-Nyungan	201
Marrithiyel	Bringen, Western Daly	212
Mian	Ok, Trans-New Guinea	215
Mountain Arapesh	Kombio-Arapesh, Torricelli	248
Murrinhpatha	Murrinhpatha, Southern Daly	210
Nasal	Nasal, Austronesian	221
Nen	Nambu, Yam	251
Ngamini	Central Pama-Nyungan, Pama-Nyungan	202
Ngan'gityemerri	Ngankikurungkurr, Southern Daly	211
Ngiyambaa	Southern Pama-Nyungan, Pama-Nyungan	203
Ngkolmpu	Kanum, Yam	252
Pendau	Celebic, Austronesian	222
Pitta-Pitta	Central Pama-Nyungan, Pama-Nyungan	204
Salako	Land Dayak, Austronesian	223
Selepet	Huon, Trans-New Guinea	233
Standard Indonesian	Malayo-Sumbawan, Austronesian	224
Sundanese	Malayo-Sumbawan, Austronesian	225
Tairora	Tairora, Trans-New Guinea	235
Tauya	Rai Coast, Trans-New Guinea	243
Teiwa	Alor-Pantar, Greater West Bomberai	247
Telefol	Ok, Trans-New Guinea	216
Toba Batak	Northwest Sumatra-Barrier Islands, Austronesian	226
Tolai	Oceanic, Austronesian	227
Tongan	Oceanic, Austronesian	228
Tukang Besi	Celebic, Austronesian	229
Urim	Urim, Torricelli	249
Waka-Waka	Southern Pama-Nyungan, Pama-Nyungan	205
Wambaya	Wambayan, Mirndi	193
Warrgamay	Northern Pama-Nyungan, Pama-Nyungan	206
Watam	Lower Ramu, Ramu-Lower Sepik	240
West Coast Bajau	Sama-Bajaw, Austronesian	230
Wubuy	Nunggubuyu, Gunwinyguan	192
Yalarnnga	Northern Pama-Nyungan, Pama-Nyungan	207
Yale	Mek, Trans-New Guinea	234
Yaluyandi	Central Pama-Nyungan, Pama-Nyungan	208
Yeri	Wapei, Torricelli	250
Yidiny	Northern Pama-Nyungan, Pama-Nyungan	209
Yimas	Lower Sepik, Ramu-Lower Sepik	241



Map 6: Southwestern Pacific and northern Australia.

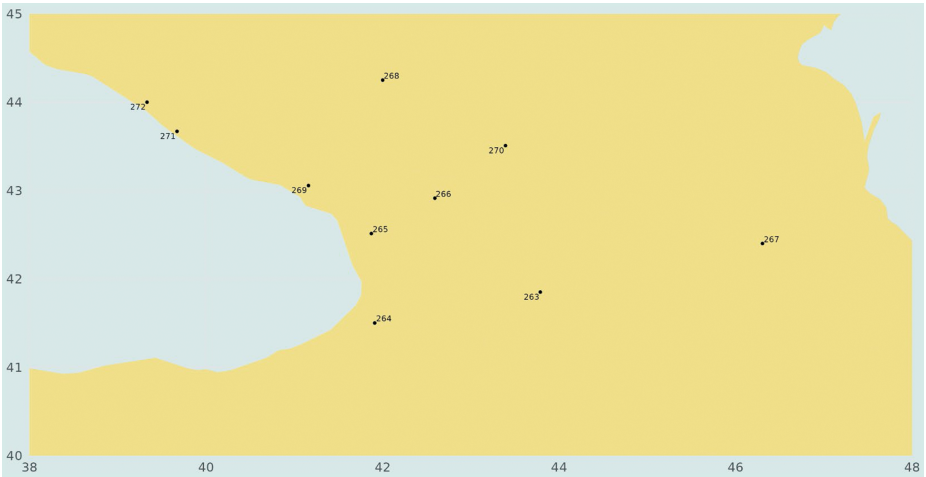
EURASIA		
language	genetic affiliation	number
Abaza	Northwest Caucasian	268
Abkhaz	Northwest Caucasian	269
Akhvakh	Avar-Andic-Tsezic, Nakh-Daghestanian	267
Bantawa	Kiranti, Sino-Tibetan ⁶	255
Bulgarian	Slavic, Indo-European	279
Czech	Slavic, Indo-European	280
Dutch	Germanic, Indo-European	275
English	Germanic, Indo-European	276
Georgian	Kartvelian	263 ⁷
German	Germanic, Indo-European	277
Hakha Lai	Kuki-Chin, Sino-Tibetan	256
Hayu	Kiranti, Sino-Tibetan	257
Hungarian	Ugric, Uralic	287
Kabardian	Northwest Caucasian	270
Khaling	Kiranti, Sino-Tibetan	258

⁶ The genus labeled “Himalayish” in WALS is more commonly labeled “Kiranti”. Moreover, “Himalayish” is ambiguous, since not all authors use it with the same extension.

⁷ Number 263 also applies to Old Georgian, which was spoken on roughly the same territory as Modern Georgian.

(continued)

EURASIA		
language	genetic affiliation	number
Korean	Koreanic ⁸	254
Latvian	Baltic, Indo-European	273
Laz	Kartvelian	264
Limbu	Kiranti, Sino-Tibetan	259
Lithuanian	Baltic, Indo-European	274
Macedonian	Slavic, Indo-European	281
Marathi	Indic, Indo-European	253
Mingrelian	Kartvelian	265
Polish	Slavic, Indo-European	282
Puma	Kiranti, Sino-Tibetan	260
Romanian	Italic, Indo-European ⁹	278
Russian	Slavic, Indo-European	283
Serbian	Slavic, Indo-European	284
Slovene	Slavic, Indo-European	285
Svan	Kartvelian	266
Thulung	Kiranti, Sino-Tibetan	261
Ubykh	Northwest Caucasian	271
West Circassian	Northwest Caucasian	272
Yakkha	Kiranti, Sino-Tibetan	262



Map 7: Caucasus.

⁸ The classification of Korean depends on whether Jeju is considered a Korean dialect, or a closely related language constituting alongside Korean a genus that can be labeled “Koreanic”.

⁹ A strict application of Dryer’s (1989) definitions leads to the conclusion that the Romance languages do not constitute a genus, and that the genus to which they belong is rather the Italic branch of Indo-European.

Part II: **Case studies**

Individual languages

Donna B. Gerdts

4 Hul'q'umi'num' Salish applicative constructions

Abstract: Based on original fieldwork and data from texts, this paper details applicatives in Hul'q'umi'num', spoken along the western shores of the Salish Sea in British Columbia, Canada. Hul'q'umi'num' has four applicative constructions marked by suffixes that allow the expression of objects with such semantic roles as goal, beneficiary, direction, and cause/stimulus. Applicatives are divided into two types: relationals, which are formed on intransitive bases, and redirectives, formed on transitive bases. (Transitivity is easily ascertained in Hul'q'umi'num' due to transitive morphology and ergative inflection.) Hul'q'umi'num' is a direct/oblique object language: only two NPs per verb can be direct arguments and other NPs are introduced by oblique marking. In semantically ditransitive constructions, the applied object is always the direct object and thus there are no non-applicative counterparts for redirective applicatives. As a polysynthetic language, Hul'q'umi'num' exhibits voice and valence marked by suffixes—limited control, passive, causative, reflexive, reciprocal, and antipassive—as well as lexical suffixes with the semantic meaning of nominals. These all co-occur with the applicative suffixes. Applicative constructions are an important device for expressing topic-worthy NPs as direct objects or, if they are also passivized, as subjects.

1 Introduction

Hul'q'umi'num' is the dialect of the Halkomelem language (Central Salish, Salish ISO 639-2 / 5 sal, Glottolog sali1255) spoken on Vancouver Island and neighboring islands in British Columbia, Canada. Today there are only around twenty first language speakers of Hul'q'umi'num', but more than three hundred fluent and semi-fluent second language speakers. The data in this chapter come from the author's fieldwork (1975 to present) and also from a corpus of texts.¹ This chapter describes the applicative con-

¹ Research on Hul'q'umi'num' linguistic structure and the transcription and compilation of texts was funded by grants from the Jacobs Research Fund and the Social Sciences and Humanities Research Council. My thanks to the elders whose recordings make up the 5,000-line text corpus. These legacy

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structions found in Hul'q'umi'num', which have been a topic of much interest to the author over the years (see Gerdtz 1984, 1988b/2016, 2010a, 2010b; Gerdtz and Kiyosawa 2005; Kiyosawa and Gerdtz 2010a). I refer you to Kiyosawa and Gerdtz (2010b) and references therein for a survey of applicative constructions in Salish languages.

Hul'q'umi'num' has two types of applicative constructions, and it has two applicatives of each type, for a total of four applicatives (Gerdtz 1988b). The first type of applicative is the “relational” applicative, in which an applicative suffix is added to an intransitive base to derive a transitive. The two relational applicatives are the general relational applicative, formed with the suffix *-meʔ*, labelled REL, as illustrated in (1), and the directional applicative, formed with the suffix *-nas*, labelled DIR, as illustrated in (2).²

- (1) *čəq-meʔ-t* *č* *ceʔ* *kʷθə* *nəčəwməxʷ* *ʔi* *ceʔ* *tecəl*.
 surprise-REL-TR 2SG.SBJ FUT DET visitor AUX FUT arrive
 ‘You will be surprised at the visitors when they arrive.’
- (2) *níʔ* *nəm-nəs-as* *kʷθə* *swiwləs* *kʷθə* *swəyʔqeʔ*.
 AUX go-DIR-3SBJ DET boy DET man
 ‘The boy went up to the man.’

The second type of applicative is the “redirective” in which an applicative suffix is added to a transitive base to derive a ditransitive clause. The two redirective applicatives are the dative applicative, formed with the suffix *-as*, labelled DAT, as illustrated in (3), and the benefactive applicative formed, with the suffix *-ətc*, labelled BEN, as illustrated in (4).³

- (3) *neṁ* *č* *ʔam-as-t* *tʰə* *sqʷəmeʔ* *ʔə* *tʰə* *stʰəam!*
 go 2SG.SBJ give-DAT-TR DET dog OBL DET bone
 ‘Go give the dog the bone!’
- (4) *neṁ* *č* *ʔiləq-ətc-t* *tʰəṁ* *silə* *ʔə* *tʰə* *səplil!*
 go 2SG.SBJ buy-BEN-TR DET.2POSS grandparent OBL DET bread
 ‘Go buy your grandfather some bread!’

stories were recorded by Tom Hukari, Wayne Suttles, and me, and transcribed by Arnold Guerin, Ruby Peter, Theresa Thorne, and edited by Zack Gilkison, Tom Hukari, Sarah Kell, Kaoru Kiyosawa, Zoey Peterson, and myself.

2 Data are presented in a modified Americanist Phonetic Alphabet; *x* represents the velar fricative and *χ* the uvular fricative.

3 The dative suffix appears as *-as* in an unstressed syllable.

This description of Hul'q'umi'num' applicatives is structured as follows. Section 2 gives a brief introduction to Hul'q'umi'num' morphosyntax. Section 3 gives details about the morphology of applicative verbs, including their inflection for transitivity and person. Section 4 details the syntactic status of the noun phrases in applicative constructions and in their non-applicative counterparts, and it also discusses combinations with other constructions, such as passives, antipassives, reflexives, reciprocals, causatives, and lexical suffixes, all of which are formed with suffixes in Hul'q'umi'num'. Section 5 comments on the semantic range of each type of applicative and their use in discourse. The conclusion in Section 6 gives a summary of the findings.

2 Basics of Hul'q'umi'num' morphosyntax

Hul'q'umi'num', a mildly polysynthetic language, has robust morphology that registers valence and person marking. Hul'q'umi'num' is a split ergative language (Gerds 1988b): third-person subjects of intransitive main clauses (5) and objects of transitive clauses (6) are unmarked, but third-person subjects of transitive main clauses are marked by the third-person subject suffix *-əs* (7).

- (5) *nɪʔ ʔiməʃ.*

AUX walk

'He/she/it walked.'

- (6) *nɪʔ cən ɬʷaqʷ-ət ʔə kʷθəŋ ʃapəl-əl.*

AUX 1SG.SBJ club-TR OBL DET.2POSS shovel-PST

'I hit him with your shovel.'

- (7) *nɪʔ ɬʷaqʷ-ət-əs tʰə swəyqeʔ tʰə speʔəθ.*

AUX club-TR-3SBJ DET man DET bear

'The man clubbed the bear (in view).'

In contrast, first- and second-person indexing works on a nominative/accusative basis. Main clause subjects are marked with second-position clitics in both intransitive (8) and transitive (9) clauses, while objects appear as verb suffixes (10), often fused with a transitive marker:

- (8) *nɪʔ cən ʔiməʃ.*

AUX 1SG.SBJ walk

'I walked.'

- (9) *ni? cən q̣ʷaqʷ-ət tʰə speʔəθ.*
 AUX 1SG.SBJ club-TR DET bear
 ‘I clubbed the bear.’
- (10) *ni? q̣ʷaqʷ-θamš-əs tʰə swəỵqeʔ.*
 AUX club-TR.1SG.OBJ-3SBJ DET man
 ‘The man clubbed me.’

Compared to person marking, marking on noun phrases provides little information about the syntactic role of a noun phrase. All argument noun phrases (including proper nouns, plurals, and generics) are preceded by a determiner that registers semantic features such as gender, viewpoint deixis, number, and spatial deixis. There are over fifty determiners; the most frequently occurring are listed in Table-1 and illustrated in (11).

Table 1: Some Hul’q’umi’num’ determiners.

	plain	feminine (sg)
proximal	<i>tʰə</i>	<i>θə</i>
non-proximal	<i>kʷθə</i>	<i>lə</i>
non-deictic	<i>kʷ</i>	

- (11) *tʰə swəỵqeʔ* ‘the man’ (in view)
kʷθə slən̄t̄eniʔ ‘the women’ (out of view)
θə sl̄eniʔ ‘the woman’ (in view)
lə sl̄eniʔ ‘the woman’ (out of view)
kʷ šukʷə ‘some sugar’

NP subjects and objects of active, stative, and transitive verbs in all tenses and aspects are preceded by determiners.

- (12) *ni? ʔəšəl tʰə swəỵqeʔ.*
 AUX paddle DET man
 ‘The man (in view) paddled.’
- (13) *ni? q̣ʷəl tʰə səpl̄il.*
 AUX cook DET bread
 ‘The bread (in view) baked.’
- (14) *ni? q̣ʷaqʷ-ət-əs tʰə swəỵqeʔ tʰə speʔəθ.*
 AUX club-TR-3SBJ DET man DET bear
 ‘The man (in view) clubbed the bear (in view).’

In contrast, semantically oblique noun phrases are oblique marked by the catch-all preposition *ʔə*, which precedes the determiner. This preposition is used to mark a variety of semantic roles, including goals (15) and instruments (16).

- (15) *neṁ č ceʔ ɛ:l neṁ ʔə-ʔ ʔəlpalas!*
 go 2SG.SBJ FUT go.ashore go OBL-DET Cowichan.Bay
 'Go ashore at Cowichan Bay!'
- (16) *niʔ cən q̣ʷaqʷ-ət kʷθə speʔəθ ʔə kʷθəṁ šapəl-ət.*
 AUX 1SG.SBJ club-TR DET bear OBL DET.2POSS shovel-PST
 'I hit the bear with your shovel.'

As seen in the above examples, the verb complex (the verb and its surrounding auxiliaries and clitics) is in clause-initial order, while the noun phrases follow—word order among the noun phrases is free, so the word order in (17) is also allowed.

- (17) *niʔ cən q̣ʷaqʷ-ət ʔə kʷθəṁ šapəl-ət kʷθə speʔəθ.*
 AUX 1SG.SBJ club-TR OBL DET.2POSS shovel-PST DET bear
 'I hit the bear with your shovel.'

Overall, we see that much of the weight of identifying the syntactic roles of the entities related to an event is borne by the verbal morphology.

3 Morphology

As mentioned above, each of the four applicative constructions in Hul'q'umi'num' is associated with an applicative suffix. The general relational suffix *-meʔ* is suffixed to an intransitive base to form a transitive verb and is inflected with the general transitive suffix *-(ə)t* as in *-meʔt*.

- (18) *ɫciws* 'be tired' *ɫciwsmeʔt* 'be tired of him/her'
siʔsiʔ 'be afraid' *siʔsiʔmeʔt* 'be afraid of him/her'
xiʔxeʔ 'be ashamed' *xiʔxeʔmeʔt* 'be ashamed of him/her'
čəq̣ 'be astonished' *čəq̣meʔt* 'be astonished, surprised at him/her'
ʔiyəs 'be happy' *ʔiyəsmeʔt* 'be happy for him/her'

The directional suffix *-nas* is also added to intransitive bases, but it is not followed by the general transitive suffix.⁴

⁴ Since all other transitive verb forms have overt transitive morphology in Hul'q'umi'num', we should

- | | | | | |
|------|---------------------------|----------|------------------------------|-------------------------|
| (19) | <i>nem</i> | ‘go’ | <i>nəmnəs</i> | ‘go toward him/her’ |
| | <i>ʔewə</i> | ‘come’ | <i>ʔewənəs</i> | ‘come toward him/her’ |
| | <i>χ^wčənəm</i> | ‘run’ | <i>χ^wčənəmnəs</i> | ‘run toward him/her’ |
| | <i>čtem</i> | ‘crawl’ | <i>čtemnəs</i> | ‘crawl toward him/her’ |
| | <i>ʔəšəl</i> | ‘paddle’ | <i>ʔəšəlⁿəs</i> | ‘paddle toward him/her’ |

Redirective applicatives are formed from transitive bases, as seen by comparing the mono-transitive verbs, suffixed with transitive morphology, with the benefactive verbs, formed with the applicative suffix *-əlc* followed by the transitive suffix.

- | | | | | |
|------|-------------------------------------|-----------|--|-----------------------|
| (20) | <i>k^wənət</i> | ‘take it’ | <i>k^wənəlcət</i> | ‘take it for him/her’ |
| | <i>p^ət^əət</i> | ‘sew it’ | <i>p^ət^əəlcət</i> | ‘sew it for him/her’ |
| | <i>θəyt</i> | ‘fix it’ | <i>θəyəlcət</i> | ‘fix it for him/her’ |
| | <i>ʔiləqət</i> | ‘buy it’ | <i>ʔiləqəlcət</i> | ‘buy it for him/her’ |
| | <i>t^əχ^wat</i> | ‘wash it’ | <i>t^əχ^wəlcət</i> | ‘wash it for him/her’ |

The benefactive suffix is productive in Hul’q’umi’num’: any transitive verb can be augmented with this suffix so long as the meaning of benefaction is compatible with the event. In contrast, there are only five applicative verbs formed with the dative suffix *-as*, all followed by the transitive suffix.⁵

- | | | | | |
|------|---------------------------|------------|---|-------------------------|
| (21) | <i>√sem</i> | ‘sell’ | <i>sam^əast</i> | ‘sell him/her it’ |
| | <i>√ʔeʔəm</i> | ‘give’ | <i>ʔam^əast</i> | ‘give him/her it’ |
| | <i>√ʔi^w</i> | ‘instruct’ | <i>ʔi^wast</i> | ‘show him/her it’ |
| | <i>√x^wayəm</i> | ‘sell’ | <i>x^wayəm^əast</i> | ‘sell him/her it’ |
| | <i>√yəθ</i> | ‘tell’ | <i>yəθ^əast</i> | ‘tell him/her about it’ |

Only one of the forms *√sem* has a mono-transitive form *sem^əat* ‘sell it’; the other forms require the dative suffix in order to appear as transitive verbs. In sum, three of the four applicative suffixes are quite productive, but the dative suffix *-as* appears on a few, mostly frozen forms.

As noted above, applicatives formed with three of the four suffixes are inflected with the general transitive suffix *-t*. Hul’q’umi’num’ pronominal object suffixes follow and sometimes merge with the transitive suffix, producing paradigms as follows:

assume that either the applicative itself is a transitivizer or perhaps the form can be segmented into *-n* and *-s*, with the later related to the causative suffix.

5 As previously noted by Hukari and Peter (1995: 371ff.), several, perhaps six, suffixes in the language trigger vowel harmony of a preceding *e* vowel to *a*. See Gerds and Hinkson (2004) for more discussion.

(22) Object paradigm with basic transitive verb

<i>leməθam̓š</i>	'look at me'
<i>leməθamə</i>	'look at you (SG)'
<i>lemətalx^w</i>	'look at us'
<i>lemətalə</i>	'look at you (PL)'
<i>lemət</i>	'look at him/her/it/them'

(23) Object paradigm with relational suffix *-me?*

<i>łciwsme?θam̓š</i>	'be tired of me'
<i>łciwsme?θamə</i>	'be tired of you (SG)'
<i>łciwsme?talx^w</i>	'be tired of us'
<i>łciwsme?talə</i>	'be tired of you (PL)'
<i>łciwsme?t</i>	'be tired of him/her/it/them'

(24) Object paradigm with benefactive suffix *-əlc*

<i>k^wənəlcəθam̓š</i>	'take it for me'
<i>k^wənəlcəθamə</i>	'take it for you (SG)'
<i>k^wənəlcətalx^w</i>	'take it for us'
<i>k^wənəlcətalə</i>	'take it for you (PL)'
<i>k^wənəlcət</i>	'take it for him/her/it/them'

(25) Object paradigm with dative suffix *-as*

<i>ʔaməsθam̓š</i>	'give me it'
<i>ʔaməsθamə</i>	'give you (SG) it'
<i>ʔaməstalx^w</i>	'give us it'
<i>ʔaməstalə</i>	'give you (PL) it'
<i>ʔaməst</i>	'give it to him/her/it/them'

The directional applicative suffix *-nas*, which is not followed by a transitive suffix, takes object suffixes from a slightly different (vowel-initial) paradigm.

(26) Object paradigm with the directional suffix *-nas*

<i>ʔewənasam̓š</i>	'come to me'
<i>ʔewənasamə</i>	'come to you (SG)'
<i>ʔewənasalx^w</i>	'come to us'
<i>ʔewənasalə</i>	'come to you (PL)'
<i>ʔewənas</i>	'come to him/her/it/them'

We see this paradigm with other transitive suffixes, for example the causative suffix *-stəx^w*.

- (27) Object paradigm with causative suffix
- stəx^w*

ʔəltənəstam̩ʃ ‘feed me’*ʔəltənəstamə* ‘feed you (SG)’*ʔəltənəstəlx^w* ‘feed us’*ʔəltənəstalə* ‘feed you (PL)’*ʔəltənəstəx^w* ‘feed him/her/it/them’

Thus, applicative constructions have comparable inflectional paradigms to those of other transitive constructions in the language.

4 Syntax

4.1 General comments

Hul’q’umi’num’ applicatives straightforwardly match the comparative notion of applicative constructions advance in Zúñiga and Creissels (this volume).⁶ Relational applicative constructions have corresponding intransitive basic clauses built on the same root (28) and the applicative clause is syntactically transitive, marked with an applicative suffix, with a non-theme nominal as the direct object, as seen in the directional applicative construction in (29).

- (28)
- niʔ nem k^wθə swiwləs.*

AUX go DET boy

‘The boy went.’ (Gerdts 2010b)

- (29)
- niʔ nəm-nəs-əs k^wθə swiwləs k^wθə čan.*

AUX go-DIR-3SBJ DET boy DET John

‘The boy went up to John.’ (Gerdts 2010b)

One way to clearly see the difference in transitivity is to compare the psychological clause in (30) with its relational applicative counterpart in (31).

- (30)
- niʔ siʔsiʔ k^wθə sʔiʔʔqəʔ ʔə k^wθə snəx^wəʔ.*

AUX afraid DET child OBL DET canoe

‘The child was frightened of the car.’

⁶ Peterson (2007) references our research on Salish applicatives and places it in typological perspective.

- (31) *níʔ siʔsiʔ-meʔ-t-əs kʷθə sʰiʔʰqəʔ kʷθə sqwəmey.*
 AUX afraid-REL-TR-3SBJ DET child DET dog
 'The child was frightened of the dog.'

In (30) the stimulus of the psychological event is an adjunct, expressed as an oblique noun phrase, while in (31) it is the direct object, expressed without oblique marking. The verb in (30) is intransitive, while the verb in (31) is transitive, as evidenced by the presence of overt transitive morphology. Also, as mentioned above, Hul'q'umi'num' is a split ergative language (Gerdtz 1988b: 49): third-person subjects of intransitive main clauses are unmarked while third-person subjects of transitive main clauses are marked by the third-person subject suffix. Third-person marking thus shows that the basic clauses in (28) and (30) are intransitive, but the applicative clauses in (29) and (31) are transitive.

In discussing redirective applicatives, we should note that they show all the hallmarks of ditransitive constructions, with the sole difference being the suffixation of applicative morphology. Ditransitive constructions are discussed at length in Gerdtz (2010a), but notably there are no indirect objects in Hul'q'umi'num', rather the recipient/goal appears as the direct object and the patient/theme appears as an oblique object.

- (32) *nem̓ č ʔexweʔ-t tʰə čáč ʔə tʰə lapat!*
 go 2SG.SBJ give-TR DET George OBL DET cup
 'Go give George the cup!'

The theme appears as an oblique-marked noun phrase. The applied objects in redirective applicatives are also direct objects and thus appear as direct arguments with no preposition, for example 'grandfather' in the dative applicative in (33) and the benefactive applicative in (34):

- (33) *níʔ ʔam-əs-t-əs tʰə-nə silə ʔə kʷθə pukʷ.*
 AUX give-DAT-TR-3SBJ DET-1SG.POSS grandparent OBL DET book
 'He gave my grandfather the book.'
- (34) *níʔ ʔiləq-əʔc-t-əs tʰə-nə silə ʔə kʷθə snəxʷəl.*
 AUX buy-BEN-TR-3SBJ DET-1POSS grandparent OBL DET canoe
 'He brought my grandfather a car.'

Redirective constructions are obligatory in the sense that there is no non-applicative equivalent in which the theme occurs as an object and the applied object occurs as an oblique noun phrase. So, for example, the recipient in (35a) cannot be expressed as an oblique-marked noun phrase in a non-applicative construction, as in (35b):

- (35) a. *neṃ cən saṃ-əs-t lə sleni? ʔə θə-nə snəxwəl.*
 AUX 1SG.SBJ sell-DAT-TR DET woman OBL DET-1SG.POSS canoe
 ‘I’m going to sell my car to the woman.’
 b. **neṃ cən saṃ-ət θə-nə snəxwəl ʔə lə sleni?*
 AUX 1SG.SBJ sell-TR DET-1SG.POSS canoe/car OBL DET woman

Thus, Hul’q’umi’num’ can be considered a primary/secondary object language (Dryer 1986) or, more accurately, a direct object/oblique object language (Gerdtz 2010a). However, it is possible to separate two aspects of the event—the effect on the theme and the transfer of possession or benefit—and express each as a separate predicate. This can be accomplished by means of a serial verb construction, as in (36) and (37), or conjoined clauses, as in (38).

- (36) *ni? cən wəl seṃ-ət neṃ-əstəx^w ʔə-ḷ čan θə-nə swetə.*
 AUX 1SG.SBJ PRF sell-TR go-CAUS OBL-DET John DET-1SG.POSS sweater
 ‘I sold John my sweater.’
 (37) *q^wəl-ət cən ce? k^w sce:ltən ʃ^wte? ʔə-ḷ nəwə.*
 cook-TR 1SG.SBJ FUT DET salmon go.toward OBL-DET 2SG.PRO
 ‘I will barbecue some salmon for you.’
 (38) *q^wəl-ət cən ce? k^w sce:ltən ʔi? nil s-we?-stamə ce?.*
 cook-TR 1SG.SBJ FUT DET salmon CNJ 3PRO NMZ-OWN-CAUS.2SG.OBJ FUT
 ‘I will cook some salmon and it will be for you.’

Applied objects in all four applicative constructions can be expressed by object suffixes, an additional reason for positing that they are direct objects.

- (39) *ni? qəl-me?-θamš-əs k^wθə x^wələnitam.*
 AUX believe-REL-TR.1SG.OBJ-3SBJ DET White.man(PL)
 ‘The White men believed me.’
 (40) *ʔi ʔewə-nəs-amš-əs lə sleni?*
 AUX come-DIR-1SG.OBJ-3SBJ DET woman
 ‘The woman comes to me.’ (Gerdtz 1988b: 141)
 (41) *ni? ʔam-əs-θamš-əs lə sleni? ʔə k^wθə puk^w.*
 AUX give-DAT-TR.1SG.OBJ-3SBJ DET woman OBL DET book
 ‘The woman gave me the book.’

- (42) *ni? θəy-əlc-θamš-əs ?ə kʷθə-nə snəxʷəl.*
 AUX fix-BEN-TR.1SG.OBJ-3SBJ OBL DET-1SG.POSS canoe
 'He fixed my canoe for me.'

Only subjects and objects are indexed in the verb complex. The theme noun phrase in a redirective applicative appears as an oblique-marked noun phrase, as in the dative applicative in (43a) and the benefactive applicative in (44a); omitting the oblique preposition results in ungrammaticality, as in (43b) and (44b).

- (43) a. *ni? ?am-əs-t-əs kʷθə swiwləs ?ə kʷθə pukʷ.*
 AUX give-DAT-TR-3SBJ DET boy OBL DET book
 'He gave the boy the book.' (Gerds 1988b: 101)
 b. **ni? ?am-əs-t-əs kʷθə swiwləs kʷθə pukʷ.*
 AUX give-DAT-TR-3SBJ DET boy DET book
 Intended: 'He gave the boy the book.'
- (44) a. *ni? ʃəl-əlc-ət-əs kʷθən men ?ə kʷθə pipə-s.*
 AUX write-BEN-TR-3SBJ DET.2POSS father OBL DET letter-3POSS
 'He wrote the letter to/for your father.' (Gerds 1988b: 101)
 b. **ni? ʃəl-əlc-ət-əs kʷθən men kʷθə pipə-s.*
 AUX write-BEN-TR-3SBJ DET.2POSS father DET letter-3POSS
 Intended: 'He wrote the letter to/for your father.'

4.2 Relativization and similar operations

As detailed in Gerds (1988b), noun phrases appear in pre-verbal position in a variety of extraction constructions in Hul'q'umi'num', including relative clauses, *wh*-questions, and clefts (*it*-clefts, NP-clefts, and *wh*-clefts). The extracted noun phrase appears before the clause that it is extracted from, as seen by comparing the monotransitive clause in (45a) with its cleft counterpart in (45b):

- (45) a. *ni? č lem-ət kʷθə swəyqeʔ.*
 AUX 2SG.SBJ look.at-TR DET man
 'You looked at the man.'
 b. *nił kʷθə swəyqeʔ [ni? lem-ət-əxʷ].*
 3PRO DET man AUX look.at-TR-2SG.SBJ
 'It's the man that you looked at.'

The clause marked in square brackets in (45b) is a dependent clause, as seen by subject indexing; first- and second-person subject markers appear as second-position clitics in main clauses (45a) but as verbal suffixes in dependent clauses (45b). Applied objects

in both relational and redirective constructions are similarly extracted: (46b) shows extraction of an applied object in a directional applicative, (47b) in a relational applicative, (48b) in a dative applicative, and (49b) in a benefactive applicative.

- (46) a. *ni? nām-nās-əs kʷθə swiwləs kʷθə swəyqe?*
 AUX go-DIR-3SBJ DET boy DET man
 ‘The boy went up to the man.’
 b. *łwet kʷə ni? nām-nās-əs kʷθə swiwləs?*
 who DET AUX go-DIR-3SBJ DET boy
 ‘Who did the boy go up to?’
- (47) a. *ni? č qel-me?-t kʷθə ləplit.*
 AUX 2SG.SBJ believe-REL-TR DET priest
 ‘You believed the priest.’
 b. *łwet ni? qel-me?-t-əxʷ?*
 who AUX believe-REL-TR-2SG.SBJ
 ‘Who did you believe?’
- (48) (Gerdts 1988b: 101, 103)
 a. *ni? ʔam-əs-t-əs kʷθə swiwləs ʔə kʷθə pukʷ.*
 AUX give-DAT-TR-3SBJ DET boy OBL DET book
 ‘He gave the boy the book.’
 b. *nił kʷθə swiwləs ni? ʔam-əs-t-əs ʔə kʷθə pukʷ.*
 3PRO DET book AUX give-DAT-TR-3SBJ OBL DET book
 ‘It’s a boy that he gave the book to.’
- (49) a. *ni? č qʷəl-əl-əlc-t tən silə ʔə kʷθə səplil.*
 AUX 2SG.SBJ cook-BEN-TR DET.2POSS grandparent OBL DET bread
 ‘You baked bread for your grandfather.’
 b. *łwet kʷə ni? qʷəl-əl-əlc-t-əxʷ ʔə kʷθə səplil?*
 who DET AUX cook-BEN-TR-2SG.SBJ OBL DET bread
 ‘Who did you bake the bread for?’

In some languages of the world, the applicative construction serves to allow an NP access to rules such as extraction if direct objects but not obliques undergo such rules. However, In Hul’q’umi’num’ a secondary strategy of extraction via nominalization is available for noun phrases that are not core arguments. Extractions are constructed in different ways, depending upon the noun phrase’s grammatical relation in the corresponding basic clause (Gerdts 1988b). As we have seen above, direct objects are extracted with no special morphology. However, oblique noun phrases, as in (50a), are extracted through a process of nominalization with the oblique nominalizer *š(xʷ)*-, as in (50b).

- (50) a. *ni? č qel̥ ʔə kʷθə s-qʷaqʷəl̥-s kʷθə ləplit.*
 AUX 2SG.SBJ believe OBL DET NMZ-talk(IPFV)-3POSS DET priest
 'You believed the priest's words.'
- b. *stem kʷə ni? ʔəñ-š-qel̥?*
 what DET AUX 2POSS-OBL.NMZ-believe
 'What did you believe?'

The subject of the relative clause is expressed as a possessor, *e.g.* ʔəñ 'your'.

Extraction reveals a difference between oblique noun phrases and the oblique-marked noun phrase in redirective applicatives. A "true" oblique is extracted via nominalization with the prefix *š(xʷ)-*, as noted above, but when the theme in a redirective applicative is extracted, the predicate is nominalized with the prefix *s-*: the theme in (48a) is extracted as in (51).⁷

- (51) *nił kʷθə pukʷ ni? s-ʔam-əs-t-s kʷθə swiwləs.*
 3PRO DET book AUX NMZ-give-DAT-TR-3POSS DET boy
 'It's a book that he gave the boy.' (Gerdt 1988b: 103)

Gerdt (1988b) uses this fact as evidence against an analysis for Hul'q'umi'num' ditransitive constructions that would paraphrase an example like (48a) as "he gifted the boy with the book" since "book" does not extract like a true oblique.⁸

4.3 Combinatory properties of applicatives

This section discusses combinations of applicatives with other voice/valence constructions, such as passives, antipassives, reflexives, reciprocals, causatives, and lexical suffixation, all of which are known to relate to the concept of direct object in Hul'q'umi'num'.⁹ All of these constructions are formed with suffixes in Hul'q'umi'num' and, as previously discussed in Gerdt (1988b, 2004), the ordering of Hul'q'umi'num' morphology straightforwardly reflects the syntactic structure of a complex predicate. If construction A serves as a base for construction B, then the morphology associated with A will appear

⁷ Gerdt (1988b, 2010c) shows other oblique objects [NPs that are semantically the patient of a transitive event but grammatically an oblique-marked NP in an intransitive construction] also undergo extraction in the *s*-nominalization construction. These include patients in antipassives, free-standing NPs doubling a lexical suffix or denominal verb, and cognate objects.

⁸ Other evidence against this analysis presented in Gerdt (1988b) comes from the fact that the applied object has some but not all of the properties of the objects of mono-transitive clauses. For example, applied objects do not undergo antipassive.

⁹ Hul'q'umi'num', unlike some of the other Salish languages, does not allow multiple applicatives (Kiyosawa and Gerdt 2010b: Ch. 7).

closer to the root than the morphology associated with B (as we will see in examples below). Research reveals four types of patterns of ordering of morphology with respect to applicative suffixes: (i) some voice/valence morphology can only appear before applicatives, (ii) some can only appear after applicatives, (iii) some can appear either before or after, and (iv) some do not co-occur with applicatives at all. Sometimes relational and redirective applicatives behave differently with respect to allowable combinations of constructions.

4.3.1 Passives

Passives in Hul'q'umi'num' differ from their active counterparts in several ways. In a passive, for example (52b), the agent, if it appears, is expressed as an oblique noun phrase:

- (52) a. *ní? ćew-ət-əs θə sleni? tʰə swəy'qe?*
 AUX help-TR-3SBJ DET woman DET man
 'The woman helped the man.'
- b. *ní? ćew-ət-əm tʰə swəy'qe? ʔə θə sleni?*
 AUX help-TR-PASS DET man OBL DET woman
 'The man was helped by the woman.'

Because passives are intransitive, they do not take ergative agreement. Instead, the verb in a passive adds intransitive morphology, labeled PASS, to the transitive suffix; in main clauses this is the suffix *-əm*, which is historically related to the middle suffix (Gerdtz and Hukari 2006b). First- or second-person subjects in passives are indexed by a set of special passive suffixes that are historically related to the object suffixes (Gerdtz 1989), as can be seen by comparing an active clause with a second-person plural object to its passive counterpart:

- (53) a. *ćew-ətala ct ce?*
 help-TR.2PL.OBJ 1PL.SBJ FUT
 'We will help you (PL).'
- b. *ćew-ətalam ce?*
 help-TR.1/2PL.PASS FUT
 'You (PL) will be helped.' [also 'We will be helped.']

Thus, indexing for the sole argument in a passive is a portmanteau morpheme combining the general transitive suffix *-t*, a person suffix, and the passive suffix. This yields a paradigm such as that for the verb 'kill':

- (54) *q̣ay-θeləm* 'I was killed'
q̣ay-θa:m 'you were killed'
q̣ay-taləm 'we were killed'
q̣ay-taləm 'you (PL) were killed'
q̣ay-təm 'he/she/it/they were killed'

All four applicative constructions have passive counterparts:

- (55) *ni? siʔsiʔ-meʔ-θeləm* *ʔə-ʔ̌* *čan.*
 AUX frighten-REL-TR.1SG.PASS OBL-DET John
 'John was frightened of me.'
 (Lit. 'I am the source of John's being frightened.')
- (56) *ni? nəm-nəs-əm* *kʷθə* *speʔəθ.*
 AUX go-DIR-PASS DET bear
 'They approached the bear.' (Lit. 'The bear was gone up to.')
- (57) *ʔi ʔam̓-əs-t-əm* *tʰə* *John* *ʔə-ʔ̌* *meli.* *ʔə* *kʷθə* *šcki:ks.*
 AUX give-DAT-TR-PASS DET John OBL-DET Mary OBL DET vanilla.extract
 'John is being given vanilla extract by Mary.' (Gerdt 1988b: 233)
- (58) *ni? θəy-əlc-θeləm* *ʔə* *θə-nə* *snəxʷəl.*
 AUX fix-BEN-TR.1SG.PASS OBL DET-1SG.POSS canoe
 'Someone fixed my canoe for me.'
 (Lit. 'I was fixed my canoe for.')

All show a full range of person inflection in the passive, e.g. the following paradigm for benefactive applicatives.

- (59) *θəy-əlc-θeləm* 'I was fixed something for'
θəy-əlc-θa:m 'you were fixed something for'
θəy-əlc-taləm 'we were fixed something for'
θəy-əlc-taləm 'you (PL) were fixed something for'
θəy-əlc-təm 'he/she/it/they were fixed something for'

Hul'q'umi'num' has a complex set of restrictions on when to use active versus passive clauses (Gerdt 1988b; Gerdt and Hukari 2008), and these pertain to applicatives as well. For example, when the agent is a proper noun, a passive rather than an active clause is used (see [57] above). There is a ban on the combination of third-person subject and second-person object, and passive is often used as a repair strategy.

- (60) *ni? ʔə ċ qəl-stəx^w θə kəpu ni? s-ʔiləq-əlc-θamət.*
 AUX Q 2SG.SBJ bad-CAUS DT coat AUX NMZ-buy-BEN-2SG.SPASS
 ‘Do you dislike the coat that was bought for you?’

Since passive morphology is conflated with person inflection, it is not surprising that it is restricted to the very end of the verb complex, as derivational morphology appears closer to the root than passive morphology. Passives cannot be further derived into transitives by means of applicatives or causatives. Therefore, the pattern of combination is that applicatives can serve as a base for passives but not vice versa.

4.3.2 Antipassives

Most monotransitive clauses have antipassive counterparts (Gerdtz and Hukari 2005):

- (61) a. *ni? q^wəl-ət-əs t^θə sce:ltən.*
 AUX cook-TR-3SBJ DET salmon
 ‘He cooked the salmon.’
 b. *ni? q^wəl-əm ʔə t^θə sce:ltən.*
 AUX cook-MID OBL DET salmon
 ‘He cooked the salmon.’
- (62) a. *naʔət q^wəs-t-əs t^θə ʔeləm sce:ltən.*
 AUX go.in.water-TR-3SBJ DET salted salmon
 ‘She put the salted fish in water.’
 b. *naʔət q^ws-els ʔə t^θə ʔeləm sce:ltən.*
 AUX go.in.water-ACT OBL DET salted salmon
 ‘She soaked the salted fish.’

Antipassives are formed with the middle suffix *-əm* (61b), or the activity suffix *-els* (62b). The patient in the antipassive is expressed as an oblique object. A wide variety of transitive verbs have antipassive counterparts. However, as Gerdtz (1988b) notes, applicative verbs do not form antipassives, as seen in the relational applicative in (63b) and the benefactive applicative in (64b).

- (63) a. *ni? cən q^lel-meʔ-t k^wθə ləplit.*
 AUX 1SG.SBJ believe-REL-TR DET priest
 ‘I believed the priest.’
 b. **ni? cən q^lel-meʔ-əm/əls ʔə k^wθə ləplit.*
 AUX 1SG.SBJ believe-REL-MID/ACT OBL DET priest
 Intended: ‘I believed the priest.’

- (64) a. *nem* *ʔə* *č* *θəy-əlc-t* *kʷθə-nə* *mənə* *ʔə* *kʷθə*
 go Q 2SG.SBJ fix-BEN-TR DET-1SG.POSS child OBL DET
snəxʷəł-s?
 canoe-3POSS
 'Are you going to fix his canoe for your son?'
 b. **nem* *ʔə* *č* *θəy-əlc-əm* *ʔə* *kʷθə-nə* *mənə* *ʔə* *kʷθə*
 go Q 2SG.SBJ fix-BEN-MID OBL DET-1SG.POSS child OBL DET
snəxʷəł-s?
 canoe-3POSS
 Intended: 'Are you going to fix his canoe for your son?'

This follows from a general restriction in Hul'q'umi'num' that antipassives are not formed on derived transitive verbs, so, for example, causative constructions also do not form antipassives. Antipassive is thus one construction that distinguishes between objects in simple transitive clauses, which can be oblique objects in antipassives, and applied objects, which cannot.

4.3.3 Reflexives and reciprocals

Hul'q'umi'num' reflexives and reciprocals are formed by suffixing the reflexive *-θət* or the reciprocal *-tal* to a wide variety of both intransitive and transitive verbs (Gerdtz 2000). Table 2 gives some examples of reflexives and reciprocals formed on transitive verb roots.

Table 2: Reflexives and reciprocals.

	transitive verb	reflexive	reciprocal
a.	<i>qʷaqʷət</i> 'club it'	<i>qʷaqʷəθət</i> 'club self'	<i>qʷaqʷətəl</i> 'club each other'
b.	<i>ʔakʷət</i> 'hook it'	<i>ʔakʷəθət</i> 'hook self'	<i>ʔakʷətəl</i> 'get hung up with each other'
c.	<i>čewət</i> 'help him/her'	<i>čawəθət</i> 'help self'	<i>čawətəl</i> 'help each other'
d.	<i>xiqət</i> 'scratch him/her'	<i>xiqəθət</i> 'scratch self'	<i>xiqətəl</i> 'scratch each other'

Both reflexives, e.g. (65) and (66), and reciprocal, e.g. (67) and (68), can be formed on relational applicatives.

- (65) *ni? cən siʔsiʔ-meʔ-θət ʔə kʷθə nə qiʔxəneʔtən niʔ ʔə*
 AUX 1SG.SBJ frighten-REL-REFL OBL DET 1SG.POSS reflection AUX OBL
kʷθə škʷcastən.
 DET mirror

‘I frightened myself with my reflection in the mirror.’

- (66) *ʔi cən wəl ʔciws-maʔ-θət¹⁰ kʷə-nə-s ʔi qaqiʔ.*
 AUX 1SG.SBJ already tired-REL-REFL DET-1POSS-NMZ AUX sick
 ‘I’m tired of myself being sick.’ (Gerdtz and Kiyosawa 2005: 336)

- (67) *ʔeʔət xi:ʔxeʔ-meʔ-təl tʰə sʔəliqəl kʷ-s qʷəlqʷəl-təl-s.*
 AUX shy(IPFV)-REL-REC DET children DET-NMZ speak(IPFV)-REC-3POSS
 ‘The children are shy about speaking to each other.’

- (68) *ʔi yə-hənən-nəs-təl tʰə sqʷəm qʷəmeʔ.*
 AUX DYN-go(IPFV)-DIR-RECP DET dog(PL)
 ‘The dogs are going up to each other.’

In contrast, Gerdtz (1988b) claims that the redirective suffixes *-as* and *-əlc* in Hul’q’umi’num’ cannot be followed by the reflexive suffix:

- (69) **niʔ cən ʔam-əs-θət.*
 AUX 1SG.SBJ give-DAT-REFL
 Intended: ‘I gave it to myself.’ (Gerdtz 1988b: 113)
- (70) **niʔ qʷəl-əlc-θət ʔə kʷθə səplil.*
 AUX cook-BEN-REFL OBL DET bread
 Intended: ‘He baked the bread for himself.’ (Gerdtz 1988b: 113)

Syntactically, there is no reason to expect that reflexive forms of redirective applicatives should not be possible,¹¹ though Gerdtz (2010a) shows that non-applicative ditransitive constructions also disallow reflexives: for example, *ʔexʷeʔt* ‘give it to him/her’ does not form a reflexive **ʔexʷeʔθət* ‘give it to oneself’ and *cset* ‘tell him or her to do something’ does not form the reflexive *cəsəθət* ‘tell oneself to do something’. Semantically it is somewhat awkward to direct an action toward the self using a construction that purposely directs the action to another person.¹²

¹⁰ The vowel *e* in the relational suffix *-meʔ* changes to *a* before the reflexive suffix (Gerdtz and Hinkson 2004).

¹¹ See Kiyosawa and Gerdtz (2010b: Ch. 7) for examples of reflexives formed on applicatives in other Salish languages.

¹² See the periphrastic construction in (38) above that can be used to express that meaning.

In contrast, reciprocal forms of ditransitives were easier for speakers to construct, as the meaning can be construed as an outwardly directed action doing something to “each other”, and likewise reciprocal forms of redirecive applicatives are also possible:

- (71) *ní? ct nāwān-təl ?i? θā-nā sqeʔəq ʔə kʷθā leləm ct.*
 AUX 1PL.SBJ will-RECP CNJ DET-1SG.POSS sister OBL DET house 1PL.POSS
 ‘My little sister and I willed each other our house.’

- (72) *ʔam-əs-təl*
 give-DAT-RECP
 ‘give it to each other’ (Gerds 2000: 146)

- (73) *ní? ct qʷəl-əlc-təl.*
 AUX 1PL cook-BEN-RECP
 ‘We cooked for each other.’ (Gerds 2000: 146)

We see then that both reflexives and reciprocals can follow relational applicatives but only reciprocals can follow redirecive applicatives in Hul'q'umi'num'.¹³

Research on the opposite order has uncovered another asymmetry between applicative types. Reflexives and reciprocals are detransitivizing constructions and thus they are suitable as bases for relational but not redirecive applicatives. One use of reflexive morphology is on manner-of-motion verbs, e.g. *qix* ‘slide, slip’ as a non-agentive action versus *qixəθət* ‘slide (as in sledding)’ as a verb of controlled motion. Such reflexives allow directional applicatives.

- (74) *nem qix-əθət ʔə kʷθā sθimaʔ.*
 go slide-REFL OBL DET ice
 ‘Go slide on the ice.’

- (75) *nem č pə? qiqəx-əθət-nəs tʰən men.*
 go 2SG.SBJ CERT slide-REFL-DIR DET.2POSS father
 ‘Go and skate/slide to your father.’

The reciprocal suffix can be added to intransitive verbs to express the meaning that the action was done “together”, and in the following example we see a motion verb suffixed with the reciprocal followed by a directional applicative suffix.

¹³ The difference between the range of occurrence between reciprocals and reflexives is not unexpected from a cross-linguistic viewpoint. For example, in English, reciprocal pronouns, but not reflexive pronouns, can function as possessives: compare ‘they looked at each other’s pictures’ with the unacceptable ‘*he looked at himself’s picture’.

- (76) *nem ct ce? pe? ʔəw šaqwəl ʔəšəl-təl-nəs-amə.*
 go 1PL.SBJ FUT CERT LNK go.across paddle-RECP-DIR-2SG.OBJ
 ‘We will all paddle across together toward you.’

To summarize, the two types of applicatives have different combinatory properties with respect to reflexives and reciprocals. Only relational applicatives can follow reflexives and reciprocals, and only relationals serve as bases for reflexives. Both relational and redirec-tive applicatives serve as bases for reciprocals. The lack of reflexives built on redirec-tive applicatives is one difference between mono-transitive and ditransitive constructions.

4.3.4 Causatives

Hul’q’umi’num’ causatives (Gerdts 1988b; Gerdts and Hukari 2006a) are formed with the suffix *-stəx^w*. When the base is an active intransitive verb (77a), the causative (77b) forms a transitive clause in which the causer is the subject and the causee is the direct object, and when the base is a transitive verb (78a), the causative (78b) forms a ditransitive clause in which the causee is the direct object, and the object in the corresponding transitive is an oblique object.

- (77) a. *ni? ʔəltən θə qeq*
 AUX eat DET baby
 ‘The baby ate.’
 b. *ni? cən ʔəltən-stəx^w θə qeq*
 AUX 1SG.SBJ eat-CAUS DET baby
 ‘I fed the baby.’
- (78) a. *ni? ʔiləq-ət-əs t^θə sʔiʔʔqət k^w sk^wawəs.*
 AUX buy-TR-3SBJ DET child DET bucket
 ‘The boy bought a bucket.’
 b. *ʔiləq-stəx^w č t^θə sʔiʔʔqət ʔə k^w sk^wawəs.*
 buy-CAUS 2SG.SBJ DET child OBL DET bucket
 ‘Have the boy buy a bucket.’

Relational applicatives cannot be formed on causatives, as causatives are transitive constructions, and relational applicatives are formed only on intransitive bases. In contrast, benefactive applicatives, which are formed on transitive bases, can be formed on causatives.

- (79) *ni? cən ʔəltən-əst-əlc-ət ʔə θə qeq.*
 AUX 1SG.SBJ feed-CAUS-BEN-TR OBL DET baby
 ‘I fed the baby for her.’

- (80) *nem̓ ʔənəx^w-st-əl̥c-θam̓š ʔə θə sti:č!*
 go stop-CAUS-BEN-TR.1SG.OBJ OBL DET bus
 'Stop the bus for me!'
- (81) *nem̓ x^wəʔaləṁ-st-əl̥c-ət ʔə θə ʔe:y̌x̌əľ.*
 go return-CAUS-BEN-TR OBL DET crab.young(DIM)
 'Bring the little crabs back for him.'

Next, we consider the possibility of a causative being formed on an applicative construction. Speakers easily constructed examples of directional applicatives followed by causatives:

- (82) *nəm̓-nəs-stəx^w t^əəṁ siľə ʔə t^əə ʔi šəq̌əq̌ip*
 go-DIR-CAUS DET.2POSS grandparent OBL DET AUX gathered
q^wəli:lq^wəṁ-ťəṁ.
 talk(PL.IPFV)-RECP
 'Have your grandfather go to the people in discussion.'
- (83) *niʔ č ʔewə-nəs-stəx^w t^əə x^wəlməx^w ʔi ťecəl.*
 AUX 2SG.SBJ come.here-DIR-CAUS DET First.Nation.people AUX arrive
 'Have the First Nation people that arrived come this way.'

Work with speakers did not reveal examples of causatives being formed on other applicatives.¹⁴

4.3.5 Lexical suffixes

Hul'q'umi'num' has over one hundred lexical suffixes, which are bound roots that have meanings analogous to free-standing nominals expressing body parts, flora and fauna, people, and cultural artifacts, such as houses, garments, and instruments. The lexical suffix usually bears little resemblance to the free-standing noun of similar meaning.

Table 3: Some lexical suffixes.

Noun	Meaning	Lexical suffix	Meaning
<i>sʔaθəs</i>	'face'	<i>-as</i>	'face', 'round object'
<i>qələṁ</i>	'eye'	<i>-alas</i>	'eye', 'loop'
<i>θaθən</i>	'mouth'	<i>-aθən</i>	'mouth', 'edge'
<i>lələṁ</i>	'house'	<i>-eṁtx^w</i>	'house', 'building', 'room'
<i>qeq</i>	'baby'	<i>-eyəṁ</i>	'baby', 'younger generation'

¹⁴ See Gerdts and Hukari (2006a) for more discussion of causatives formed on transitives.

The syntax and semantics of lexical suffixes have been discussed elsewhere (Gerdtz 2003, 2010c; Gerdtz and Hinkson 1996; Hinkson 1999), but suffice it to say that the way lexical suffixes stack with applicatives rests crucially on the type of lexical suffix construction.

One type of lexical suffixes behaves as an adjunct to specify the instrument, manner, or location of the verb; the suffix attaches to an intransitive base and yields an intransitive verb.

- (84) *q̣t-aθən*
go.along-mouth
'walk along (a shore, etc.)' (Gerdtz 2003: 346)

Many cognitive/psychological predicates are formed with an adjective or intransitive verb and a lexical suffix, which embodies the experience, and such forms can be transitive with the relational applicative suffix *-meʔ*. Examples are provided in Table 4:

Table 4: Lexical suffixes preceding relational applicative.

Base	Parse	Base + <i>-meʔ</i>	meaning
<i>qil-əs</i>	bad-face 'sad'	<i>qilasmeʔt</i>	'sad for him/her/it'
<i>xʷ-θt-iwən</i>	LOC-say-inside 'think'	<i>xʷθtiwənmeʔt</i>	'think, decide about him/her/it'
<i>xʷ-qʷəl-əwən</i>	LOC-talk-inside 'think'	<i>xʷqʷələwənmeʔt</i>	'think about him/her/it'
<i>tc-iws</i>	cut-body 'tired'	<i>tciwsmēʔt</i>	'tired of him/her/it'

Another use of lexical suffixes is as a classifier relating to the direct object (whether or not the object is actually expressed). So, for example, the suffix refers to *qeq* 'baby' in (85).

- (85) *nem cən škʷ-əyət-t tʰə-nə qeq.*
go 1SG.SBJ bathe-child-TR DET-1POSS baby
'I'm going to bathe my baby.'

Transitive clauses like (85) can serve as the base for benefactive applicatives, in which the applied object is the direct object and the theme corresponding to the direct object in the base form is expressed as an oblique object.

- (86) *škʷ-əyət-əlc-θamš ʔə tʰə-nə qeq.*
bathe-child-BEN-TR.1SG.OBJ OBL DET-1SG.POSS baby
'Bathe my baby for me.'

Table 5 provides some additional examples.

Table 5: Lexical suffixes followed by applicatives.

Base	Parse	Base + <i>-meʔ</i>	Meaning
<i>θay-eʔt-t</i>	fix-fabric-TR 'make a bed'	<i>θay-eʔt-əlc-t</i>	'make a bed for someone'
<i>ʔəʔq-əʔeʔ-t</i>	wash-fibre-TR 'wash wool'	<i>ʔəʔq-əʔeʔ-əlc-t</i>	'wash wool for someone'
<i>xʷ-kʷaʔ-qə-t</i>	LOC-open-container-TR 'open the container'	<i>xʷ-kʷaʔ-qə-əlc-t</i>	'open the container for someone'
<i>xʷ-tʰəʔχ-wil-t</i>	LOC-wash-vessel-TR 'wash the dishes'	<i>xʷ-tʰəʔχ-wil-əlc-t</i>	'washes dishes for someone'

As with other cases of stacking with applicatives, relational and redirecive applicatives behave differently, as they have different conditions on transitivity. Lexical suffix constructions that are intransitive serve as bases for relational applicatives and ones that are transitive serve as bases for redirecive applicatives.

We have also found examples in which the lexical suffixes *-ənəq* 'people' and *-eyl ~ eyəl* 'child/children' appear after the benefactive suffix *-əlc*. Compare the applicatives in (87) and (88)—the latter uses the lexical suffix for people to refer to the applied object.

- (87) *neṁ ʔa:l-əlc-ət tʰəṇ silə ʔə tʰə ʃθəm.*
 go load-BEN-TR DT.2POSS grandparent OBL DET box
 'Go and load the box for your grandfather.'

- (88) *ʔi tecal kʷθə swawʔləs ʔa:l-əlc-ənəq ʔə kʷθə ʔəpla:ʃ.*
 AUX arrive DET young.man.PL load-BEN-people OBL DET board
 'The young men arrived who will load the lumber on the community's behalf.'

This lexical suffix always detransitivizes the clause and thus obviates the need for transitive marking.¹⁵ Additional examples of the benefactive suffix followed by human lexical suffixes follow:

¹⁵ As discussed in Gerdtz (2003, 2010c) lexical suffix constructions can be shifted from transitive to intransitive simply by deleting the transitive morphology. The construction with *-ənəq* is unique in that it does not have a transitive counterpart.

- (89) *qəx̣ kʷθə səwələm̃ ʔi nə-s-ʔiləq-əlc-eyl.*
 much DET toy AUX 1SG.POSS-NMZ-buy-BEN-child
 ‘I bought a lot of toys for the children.’
- (90) *nem̃ č θəy-əlc-eyl ʔə-kʷ šxʷʔiʔətət-s.*
 go 2SG.SBJ make-BEN-child OBL-DET bed-3POSS
 ‘Go make up beds for the children.’
- (91) *nił ceʔ tʰə yeysələ p̣etʰ-əlc-ənəq ʔə-kʷ ləxʷtən-s tʰə*
 3PRO FUT DET two.people sew-BEN-people OBL-DET blanket-3POSS DET
məstiməxʷ.
 people
 ‘These two people will be the ones to sew their blankets for the people.’
- (92) *yeysələ ceʔ kʷə peθ-əlc-ənəq ʔə θə ləxʷtən.*
 two.people FUT DET spread-BEN-people OBL DET blanket
 ‘Two people will spread the blanket for the people.’

Instructions of this sort are often heard during longhouse ceremonies where the ceremonial speakers are directing the collective work being done on behalf of a family.

4.3.6 Summary of combinations

I first summarize the combinations where the applicatives precede other constructions. We find applicatives combine with passives but not antipassives. Applicatives can form reciprocals, but only relational applicatives form reflexives. We see then that there is one difference between objects in monotransitive clauses and applied objects: the former but not the latter can be antipassivized. We also see that applicative constructions differ as to their allowable combinations: only directional applicatives form causatives and only benefactive applicatives are known to be followed by person lexical suffixes.

Next, to summarize examples where the applicatives follow other constructions, we find that the allowable combinations are predictable according to the type of applicative. Relational applicatives are formed on intransitive bases and thus they can combine with reflexives and reciprocals, which are intransitive in Hul’q’umi’num’, but not with causatives, which are transitive constructions. In contrast, redirective applicatives are formed on transitive bases and thus they can combine with causatives, but not with reflexives or reciprocals. In the case of lexical suffixes, Hul’q’umi’num’ has both

intransitive and transitive lexical suffix constructions, and the former combine with relational applicatives and the latter combine with benefactive applicatives.

5 Semantics

5.1 Meanings associated with each applicative suffix

The relational suffix *-meʔ* appears on a wide variety of verbs; relational applicatives are used when the applied object is the stimulus of a psychological predicate (the most common use), the source of a verb of motion, the goal of a speech act, the sufferer of an adversative, or the beneficiary of an intransitive verb.

(93) *-meʔ* general relational applicative

- | | | | | |
|----|--|-------------|-----------------------------|----------------------------------|
| a. | stimulus of psychological or cognitive predicate | | | |
| | <i>łciws</i> | 'tired' | <i>łciws-meʔ-t</i> | 'tired of him/her' |
| | <i>qel'</i> | 'believe' | <i>qel'-meʔ-t</i> | 'believe him/her' |
| | <i>siʔsiʔ</i> | 'be afraid' | <i>siʔsiʔ-meʔ-t</i> | 'afraid of him/her/it' |
| | <i>xiʔxeʔ</i> | 'ashamed' | <i>xiʔxeʔ-meʔ-t</i> | 'ashamed of him/her' |
| | <i>siwəl</i> | 'sense' | <i>siwəl-meʔ-t</i> | 'sense him/her/it' |
| b. | source of verb of motion | | | |
| | <i>łəw'</i> | 'run away' | <i>łəw'-mə-t</i> | 'run away from him/her' |
| | <i>kʷe:l</i> | 'hide' | <i>kʷe:l-meʔ-t</i> | 'hide from him/her' |
| c. | goal of speech or expressive act | | | |
| | <i>xʷəyxʷəyasəm</i> | 'brag' | <i>xʷəyxʷəyas-meʔ-t</i> | 'bragging to him/her' |
| | <i>xe:m</i> | 'cry' | <i>xe:ʔəm-mə-t</i> | 'crying over him/her' |
| | <i>qʷal</i> | 'speak' | <i>qʷal-mə-t</i> | 'lecture to, bawl out him/her' |
| d. | adversative (often in passive) ¹⁶ | | | |
| | <i>θeʔc</i> | 'get dark' | <i>θeʔc-meʔ-t</i> | 'get dark on him/her' |
| | <i>łəməxʷ</i> | 'rain' | <i>łəməxʷ-meʔ-t-əm</i> | '(he/she/it) get rained on' |
| | <i>yəq'</i> | 'snow' | <i>yəq'-meʔ-t-əm</i> | '(he/she/it) get snowed on' |
| | <i>sqʷəlqʷalxʷ</i> | 'hail' | <i>sqʷəlqʷalxʷ-meʔ-t-əm</i> | '(he/she/it) get hailed on' |
| e. | beneficiary of intransitive verb | | | |
| | <i>kʷukʷ</i> | 'cook' | <i>kʷukʷ-meʔ-t</i> | 'cook for him/her' |
| | <i>ya:ys</i> | 'work' | <i>ya:ys-meʔ-t</i> | 'work for him/her' ¹⁷ |

¹⁶ See Gerdts (2012) and Kiyosawa and Gerdts (2010a) for discussion of adversatives in Hul'q'umi'num'.

¹⁷ This verb also means 'to work on' a person in a spiritual sense.

The directional *-nəs* appears on a wide variety of motion verbs:

- | | | | | |
|------|---------------------------|-------------|------------------------------|--------------------------------|
| (94) | <i>nem</i> | ‘go’ | <i>nəmnəs</i> ¹⁸ | ‘go toward him/her/it/them’ |
| | <i>?ewə</i> | ‘come’ | <i>?ewənəs</i> | ‘come toward him/her/it/them’ |
| | <i>χ^wčənəm</i> | ‘run’ | <i>χ^wčənəmnəs</i> | ‘run toward him/her/it/them’ |
| | <i>χ^wəni?</i> | ‘get there’ | <i>χ^wəniñs</i> | ‘get there to him/her/it/them’ |

The dative applicative suffix *-as* appears in only a half dozen verb forms:

- | | | | | |
|------|---------------------------|-----------|-------------------------------|-------------------------|
| (95) | (Gerdtz and Hinkson 2004) | | | |
| | <i>?e?əm</i> | ‘give’ | <i>?əm-əs-t</i> | ‘give it to him/her’ |
| | <i>señ-ət</i> | ‘sell it’ | <i>sam-əs-t</i> | ‘sell it to him/her’ |
| | <i>χ^wayəm</i> | ‘sell’ | <i>χ^wayəm-əs-t</i> | ‘sell it to him/her’ |
| | <i>√?iŵ</i> | ‘show’ | <i>?iŵ-əs-t</i> | ‘show it to him/her’ |
| | <i>√yəθ</i> | ‘tell’ | <i>yəθ-əs-t</i> | ‘tell him/her about it’ |

Gerdtz and Hinkson (1996, 2004) claim that the dative applicative suffix is grammaticalized from the lexical suffix ‘face’.¹⁹ In many examples, this suffix has a concrete body part meaning, e.g. *š-t^θχ^w-as* ‘washed face’ (*√t^θχ^w* ‘wash’), *χ^w-laq^w-əs-t* ‘slap him/her on the face’, *χ^w-pał-əs-t* ‘feel his/her face’ (*peł* ‘feel’). It extends semantically to various locational and directional meanings, e.g. *nə?-as* ‘facing away’ (*ni?* ‘be there’), *qəł-əs* ‘backwards’ (*qəl* ‘bad’), *qp-əs-t*, ‘turn it upside down’ (*√qp* ‘down’). There are also examples of metonymy where the lexical suffix *-as* FACE refers to the entire person or entity: *k^wl-əs-t* ‘throw liquid on him’, *lał-əs-t* ‘go pick him/her up and bring back’, *χ^w-θq^w-əs-t* ‘meet, to go towards’. These two extended uses of lexical suffixes set the stage for the further development of the lexical suffix into the dative applicative morpheme, which adds to the verbal semantics the meaning that an action is directed toward a person. The verbs in dative applicatives include verbs of transaction ‘give’ and ‘sell’, a verb of perception ‘show’ (96), and the speech act verb ‘tell’ (97).

- | | | | | | |
|------|---|--------------------------|-----------|------------------------|----------------|
| (96) | <i>ni?</i> | <i>?iŵ-əs-θamš-əs</i> | <i>?ə</i> | <i>k^wθə</i> | <i>qeq-s</i> . |
| | AUX | show-DAT-TR.1SG.OBJ-3SBJ | OBL | DET | baby-3POSS |
| | ‘She showed me her baby.’ (Gerdtz and Hinkson 2004: 66) | | | | |

¹⁸ When suffixed with the directional applicative suffix, the verb *nem* ‘go’ frequently shows vowel reduction. Also, some speakers lose the glottalization of the final *m* altogether, or they restructure it as an intervocalic glottal stop: *nə?əmnəs*.

¹⁹ Gerdtz and Hinkson (2004) note that forms for ‘face’ have developed into grammatical markers elsewhere in the world. For example, in Chalcatongo Mixtec (Brugman 1983, Macaulay 1996) ‘face’ is used as a locative or dative preposition and in Ayoquesco Zapotec (MacLaury 1989) it is used as a dative preposition with verbs of speaking. Hollenbach (1995) discusses the extensions of ‘face’ in nine Mixtec dialects as well as Trique and Cuicatec.

- (97) *nɪʔ yəθ-əs-t-əs lə Mary ʔə kʷθəŋ sya:ys.*
 AUX tell-DAT-TR-3SBJ DET Mary OBL DET.2POSS work
 'He told Mary about your job.' (Gerdt 1988b: 92)

In comparison, benefactive *-əlc* is productively added to a wide variety of appropriate verbs (see Table 5 above for some examples).²⁰ Benefactive applicatives are translated with the prototypical benefactive meaning of doing something for someone's benefit, with the exception of one verb *χəlat* 'write', which as an applicative can be translated as 'write to' or 'write for' (98):

- (98) *nɪʔ χəlat-əlc-ət-əs kʷθəŋ men ʔə kʷθə pipə-s.*
 AUX write-BEN-TR-3SBJ DET.2POSS father OBL DET letter-3POSS
 'He wrote the letter to/for your father.' (Gerdt 1988b: 101)

In addition, as Kiyosawa and Gerdt (2010a) note, an example such as the following can also be used in the sense of delegation (99):

- (99) *qʷəlat-əlc-θamə cən ceʔ ʔə kʷ sce:ltən.*
 cook-BEN-TR.2SG.OBJ 1SG.SBJ FUT OBL DET salmon
 'I will bake some salmon for you.'

Our colleague the late Dr. Ruby Peter explained, "You can use this for your benefit in whatever way: for you to eat, because you are unable to do it for whatever reason, because you are too busy to do it and it needs to be done, because I am being substituted to do your job, and so on." The precise meaning is determined by the context. However, the most normal or neutral reading would be that the salmon is being cooked for the referent of the object to eat themselves rather than for the salmon to be cooked to give it to someone else to eat.

5.2 Applicatives in discourse context

In the case of redirective applicatives, there are no corresponding basic constructions that are regularly used, so the purpose of the applicative is to allow the expression of the theme nominal (the oblique object) and the recipient/beneficiary (direct object) in a ditransitive clause. In the case of relational applicatives, there is always an equivalent intransitive clause in which the noun phrase corresponding to the applied object

²⁰ The Hul'q'umi'num' dictionary (Hukari and Peter 1995) lists 55 examples of words with benefactive applicatives, many with sentential examples.

is expressed as an oblique noun phrase.²¹ This raises the question: when is the basic construction versus the applicative construction used? This section attempts to answer this question by examining the noun phrases that appear in each type of clause in elicitations and in corpus data.

Hul'q'umi'num' has previously been described as having an animacy restriction on applied objects (Gerdtz 1988a, 1988b). There is indeed a strong tendency for noun phrases high on the person/animacy hierarchy to occur as applied objects rather than as obliques (100); furthermore, noun phrases low on the person/animacy hierarchy dis-prefer applicative constructions (101).

- (100) *ní? cən siʔsiʔ-meʔ-t kʷθə sqʷəmey.*
 AUX 1SG.SBJ frighten-REL-TR DET dog
 'I was frightened at the dog.' (Gerdtz and Kiyosawa 2005: 339)

- (101) *ní? cən siʔsiʔ ʔə kʷθə snəxwəl.*
 AUX 1SG.SBJ frighten OBL DET canoe
 'I was frightened at the car.' (Gerdtz and Kiyosawa 2005: 339)

Discussing person/animacy effects, Gerdtz (1988b) notes speaker judgments that animate noun phrases like 'the priest' in (102) are best expressed as applied objects rather than obliques, in contrast to an inanimate noun phrase such as 'the words of the priest' in (103).

- (102) *ní? cən qəl-meʔ-t kʷθə ləplit.*
 AUX 1SG.SBJ believe-REL-TR DET priest
 'I believed the priest.' (Gerdtz and Kiyosawa 2005: 338)

- (103) *??ní? cən qəl-meʔ-t kʷθə s-qʷaqʷəl-s kʷθə ləplit.*
 AUX 1SG.SBJ believe-REL-TR DET NMZ-talk(IPFV)-3POSS DET priest
 'I believed the words of the priest.' (Gerdtz and Kiyosawa 2005: 338)

Likewise, inanimate noun phrases (104) are better obliques than animate noun phrases (105).

- (104) *ní? cən qəl ʔə kʷθə s-qʷaqʷəl-s kʷθə ləplit.*
 AUX 1SG.SBJ believe OBL DET NMZ-talk(IPFV)-3POSS DET priest
 'I believed the priest's words.' (Gerdtz and Kiyosawa 2005: 341)

21 The endpoint of a motion verb is sometimes expressed as an oblique phrase in a serial verb construction using motion verbs such as *nəh* 'go' and *ʃʷteʔ* 'go toward' (Gerdtz 2010b).

- (105) *?*ni? cən qelʔ ʔə kʷθə ləplit.*
 AUX 1SG.SBJ believe OBL DET priest
 Intended: 'I believed the priest.' (Gerdtz and Kiyosawa 2005: 341)

However, as Gerdtz and Kiyosawa (2005b) show, in certain contexts the acceptability of an inanimate applied object improves greatly. For example, the fog is a force of nature in (106).

- (106) *ʔeʔət xʷiʔ siʔsiʔ-meʔ-t-əs tʰə speʔxʷəm kʷs nemʔ-s*
 AUX INCH frightened-REL-3SBJ DET fog DET.N go-3POSS
ʔəlɨmʔ-t-əs tʰə snəxʷət-s.
 steer-TR-3SBJ DET canoe-3POSS
 'He's scared of the fog when he drives his car.' (Gerdtz and Kiyosawa 2005: 343)

Similarly, when an animate stimulus is expressed as an oblique (107), there is a down-playing of the participation of the stimulus.

- (107) *niʔ ʔə ʕ wəl kʷiləmʔ ʔə kʷθə ʔi hiwələmʔ sʔəlɨqətʔ*
 AUX Q 2SG.SBJ PRF fed.up OBL DET AUX play(IPFV) children
 'Are you fed up with the playing children?' (Gerdtz and Kiyosawa 2005: 343)

After all it is the disturbance made by the children that is annoying and not the children themselves.

To try to enumerate the effect of person and animacy, we constructed a randomized list of English sentences based on psych predicates known to take the relational suffix *-meʔ* with a variety of potential applied objects and then asked for translations from one speaker (the late Dr. Ruby Peter) over a period of several days. The results, summarized in Table 6, show the higher the person/animacy of a noun phrase, the more likely that it will appear as an applied object rather than as an oblique noun phrase.

Table 6: Applied object vs. oblique NP.

	Applied object		Oblique	
1st/2nd person	40	100%	0	0%
proper noun	20	95%	1	5%
other human	57	90%	6	10%
animal	10	63%	6	37%
inanimate	19	46%	22	54%
total	146	81%	35	19%

Next, we turned to our corpus of texts to make a comparison of person/animacy effects in applied objects compared to their oblique counterparts. We used a 5,000-line corpus

of Hul’q’umi’num’ texts. We counted relational applicatives—relational applicatives formed with the suffix *-meʔ* and directional applicatives formed with the suffix *-nas*—and also any intransitive clauses that contained an oblique phrase with the appropriate semantics (stimulus, goal, etc.) and a verb that is known to take these suffixes. We summarize the results in Table 7.

Table 7: Applied object vs. oblique NP.

	Applied object	Oblique
1st/2nd person	1	0
other human	8	8
animal	1	4
inanimate	3	4
location, clause	6	77
total	19	93

Comparing the text data in Table 7 with the elicited data in Table 6, we see some interesting results. First, it is noticeable that the use of relational applicatives is fairly rare in texts. There is only one example involving a first or second person, and this is an applicative. But noticeably, almost half of the noun phrases referring to humans and all but one of the noun phrases referring to animals were expressed as obliques. Why did 8 out of 16 human noun phrases appear as obliques rather than applied objects, given the propensity of humans as applied objects in the elicited data? We found various factors at work. For example, many of the humans expressed as oblique noun phrases did not refer to individualized persons, but rather to institutionalized positions, such as Indian agent, or to generics such as “elders”, “white man”, or “people”, see for example this line from the story ‘Hunting with Flares’ by Samuel Tom.

- (108) *səw̓ nem-s ʔə tʰə ʔičənt ʔiʔ qʷal, “nə sʰiʔ*
 NMZ.LNK go-3POSS OBL DET agent CNJ say 1SG.POSS want
kʷəñs ʔam-əs-θ-əxʷ ʔə kʷə-nə sʔəltən.
 DET.2POSS.NMZ give-DAT-1SG.OBJ-2SG.SBJ OBL DET-1SG.POSS food
 ‘They go to the Indian agent and say, “I want you to give me my food.”’

Oblique phrases are indeed used to express the majority of inanimate noun phrases and locations and clauses (81 of 90, or 90%). We found only 9 examples where they were expressed as applied objects. One observation is that when an inanimate item is the central topic of the text, then it will tend to appear as an applied object, especially if it has already been established. In the following excerpt from the story *Syaləčaʔ* by Basil Alphonse, the smoke, expressed as an applied object in (112), is important because it is leading them to the house of the title character.

- (109) *ni.i.i? wə́ce? ʔə kʷəʔinət ʔi? ni? wət wil tʰə*
 AUX get.to.top OBL over.there CNJ AUX then appear DET
sʔeyəqəm.
 smoke
 'When they got to the mountain top they could see smoke.'
- (110) *səw təl-nəxʷ-əs θəwnil, "wət nil tʰey ni? ʔeyqəm."*
 NMZ.LNK think-NC-3SBJ that.one now 3PRO DET AUX smoke(IPFV)
 'She thought, "That is the place where the smoke is coming from."
- (111) *hay sis ʔəw wət nem.*
 only NMZ.AUX.3POSS LNK then go
 'They started again.'
- (112) *mi.i.i ʔewə-nəs-əs tʰə ʔeyqəm.*
 come come-DIR-3SBJ DET smoke(IPFV)
 'They walked towards the smoke.'

In example (113), from a Hul'q'umi'num' story about the Elhwa people by Manson George, the river is cast as an applied object; it is not only the home of the people being discussed, but it is also the main place where the story is set:

- (113) *sis miw ʔewə-nəs-əm tʰə staləw-s tʰəw-neʔəlt*
 NMZ.AUX.3POSS come. LNK come-DIR-PASS DET river-3POSS DET-3PRO(PL)
ʔiʔlʔʷa . . .
 Elhwa
 'And they came to the river of the Elhwa people. . .'

Examples such as these lead Gerdt and Kiyosawa (2005b) to the conclusion that the person/animacy effects are simply an artifact of other properties. What we see in the data overall is that it is not the person or animacy of the noun phrase that determines whether it appears as an applied object or an oblique, but rather its topic-worthiness. Higher animates are inherently more topical, and things and places of interest to the storyline or to the main character are also topical and thus can appear as applied objects. First and second persons are universally more central to the discourse and thus are topic-worthy. Animates generally outrank inanimates in their degree of importance in a conversation. Thus, the person/animacy effects are a by-product of the salience of the noun phrases to the discourse. Most research on topics in Salish language focuses on subjecthood and the use of passive voice (see Gerdt and Hukari 2008, and references therein). But our result here shows that more research is needed on the discourse properties of objects.

6 Conclusion

This chapter surveys the basic morphological, syntactic, and semantic properties of Hul'q'umi'num' applicatives. The main conclusions are as follows:

Morphology

- Hul'q'umi'num' has four applicative suffixes: *-meʔ* 'RELATIONAL', *-nəs* 'DIRECTIONAL', *-as* 'DATIVE', and *-əlc* 'BENEFACTIVE'.
- The dative suffix arose from the lexical suffix for 'face', suggesting a metonymic construction as the path of grammaticization. Sources for the other applicative suffixes are unclear.
- Applicative morphemes combine with a wide-variety of other morphemes marking valence/voice phenomena, and the combinatory order is transparent from the ordering of the morpheme associated with each construction. The applicative suffixes can appear after the antipassive suffixes, as well as various aspectual suffixes relating to verb classes, and they appear before transitive, object, subject, and passive inflection. Applicative suffixes can appear both before and after reflexive, reciprocal, causative, and lexical suffixes so long as restrictions on the transitivity of the base form are followed and a suitable meaning can be found.

Syntax

- We can distinguish two types of applicative constructions in Hul'q'umi'num': relational applicatives are transitive clauses whose corresponding basic clause is intransitive, and redirective applicatives are ditransitive clauses whose corresponding basic clause (if it has one) is monotransitive.
- The two relational applicatives, formed with *meʔ* 'RELATIONAL' and *-nəs* 'DIRECTIONAL', have intransitive counterparts in which the relevant noun phrase may appear as an oblique noun phrase (an optional adjunct) in the clause or in a serial verb construction. All relational applicatives constructions have intransitive counterparts. Relational applicatives have a valence-increasing effect and the applied object is the direct object.
- Benefactive applicatives are ditransitives built on transitive constructions. Dative applicatives (with the exception of the verb pair *šəmət* 'sell it' / *šəməst* 'sell it to him/her') do not have non-applicative counterparts. The applied object in a redirective applicative is always cast as the direct object and the theme noun phrase is cast as an oblique-marked object. This is characteristic of ditransitives in Hul'q'umi'num', a primary/secondary object language. Redirective applicatives show all the hallmarks of ditransitive constructions, with the sole difference being the presence of applicative morphology.
- Applied objects have some but not all the properties of direct objects in simple transitive sentences. The inflect with object person markers, they combine with

passive, reflexive, and reciprocal constructions, and undergo a range of extraction processes. However, they cannot be demoted in an antipassive construction.

Semantics

- The relational suffix *-meʔ* appears on a wide variety of verbs; relational applicatives are used when the applied object is the stimulus of a psychological predicate (the most common use), the source of a verb of motion, the goal of a speech act, the sufferer of an adversative, or the beneficiary of an intransitive verb. By contrast, the semantic role associated with the relational suffix *-nas* is limited to the goal of a motion verb.
- The redirective suffix *-əlc* is productively added to transitive verbs to license applied objects that are beneficiaries. By contrast, the redirective suffix *-as* appears on only a half dozen verbs to express applied objects that are recipients or goals.
- Applicative constructions are useful devices for expressing topic-worthy noun phrases as direct objects.

Abbreviations

ACT	activity
AUX	auxiliary
BEN	benefactive applicative
CAUS	causative
CERT	certainty
CNJ	conjunction
DAT	dative applicative
DEM	demonstrative
DIM	diminutive
DLM	delimiter
DET	determiner
DIR	directional applicative
DYN	dynamic
FUT	future
IMP	imperative
INCH	inchoative
IPFV	imperfective
LNK	linker used for connective and complementizer
LOC	locative prefix
MID	middle
NMZ	nominalizer
NC	non-control
OBJ	object
OBL	oblique
PASS	passive

PL	plural
POSS	possessive
PRF	perfect
PRO	pronoun
PST	past
Q	interrogative
RDR	redirective applicative
RECP	reciprocal
REFL	reflexive
REL	relational applicative
SG	singular
SPASS	subordinate clause passive
SBJ	subject
TR	transitive

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5 Applicatives in Upper Necaxa Totonac

Abstract: Like other members of the Totonac family, Upper Necaxa Totonac (UNT) lacks prepositions and morphological case. Monomorphemic verbs are either mono- or bivalent except for a handful of trivalent stems, and a complex derivational system of causatives and applicatives is used to augment verbal valency. Applicatives in this respect play a functional role in UNT grammar analogous to that of prepositions and oblique “semantic” cases in other languages. As derivational elements used in word formation, applicatives affect the meaning of their bases in a variety of ways: many applicative forms are entirely compositional, while others are non-compositional but transparent (i.e., psychologically plausible), and still others are fossilized and idiomatic—although even fossilized forms continue to be associated with fairly consistent semantic domains.

1 Introduction

Upper Necaxa Totonac (UNT; iso-639 tku) is a member of the Totonacan (a.k.a. Totonac-Tepehua) language family, spoken by approximately 3,000 people in the north-eastern part of Puebla State, Mexico. Like other members of the family, UNT lacks prepositions and morphological case. Monomorphemic verbs are either mono- or bivalent except for a handful of trivalent stems. A complex derivational system of causatives and applicatives is used to augment verbal valency, creating verbs with three, four, or even five arguments. Consider the example in (1):¹

¹ Examples used in this paper are drawn from the Upper Necaxa Totonac database and the author's field notes, ultimately having their sources in texts, conversations, and interviews with speakers. The initials of consultants who provided particular examples are given following the free translation. Examples use a practical orthography in which most symbols have the values they have in the IPA/APA, with the following exceptions: <x> = /ʃ/, <tz> = /ts/, <ch> = /tʃ/, <lh> = /ɬ/, <h> = /ʔ/, <j> = /x/, <uj> = /w/, and <y> = /j/. A colon following a vowel indicates phonemic length, and a straight apostrophe, laryngealization; a raised comma following a fricative indicates weak ejection. The acute accent marks lexical stress. Semantic roles in lexicographic definitions of verbs are indicated by variables; roles added by applicatives are given using an abbreviation for their most typical semantic domain.

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- (1) *tša'má i'xhawá'cha' nakila'hmakapini'ya' puská:t ti: ta'jatatlát*
tša'má i'x-hawá'cha' na-kin-Ø-la'h-makapin-ni'-ya'
 that 3PO-boy FUT-1OBJ-SG.OBJ-ALL.APPL-send:2SBJ-BEN.APPL-IPFV:2SG.SBJ
puská:t ti: Ø-ta'jatatlá-t
 woman HREL 3SG.SBJ-sick-PFV
 'On behalf of her_i son, you will send me to the woman_i who is sick.' (LB)

The verb *la'hmaka*: 'ni' 'X sends Y to G on behalf of B' in (1) is based on a bivalent stem, *maká*: 'n 'X sends Y', which is combined with the allative applicative *la'h-* and the benefactive *-ni'* to add two new objects expressing a Goal and a Beneficiary, respectively. In total, the language has five applicatives—the benefactive *-ni'*, the instrumental *li:-*, the comitative *ta:-*, the allative *la'h-*, and the containing instrumental *pu:-*. These will be described in detail in Section 3, following a brief tour of UNT morphosyntax.

2 Morphosyntax

Like all Totonacan languages, UNT is polysynthetic with nominative-accusative alignment and flexible (unmarked VO/VS) constituent order. Verbs are inflected for tense, aspect, mood, and person/number agreement with subject and objects. Person and number of subjects is expressed cumulatively, while person and number of objects have separate exponents:

- (2) *pus chuwa: ka:tama'hni:yá:n ka:talhkuyuyá:n*
pus chuwa: ka:-ta-ma'hni:-ya:-n ka:-ta-lhku-yu-ya:-n
 INTJ now PL.OBJ-3PL.SBJ-kill-IPFV-2OBJ PL.OBJ-3PL.SBJ-burn-TRZ-IPFV-2OBJ
 'Well, now they are going to kill you guys, they are going to burn you guys.' (MR)

Both verbs in (2) use the prefix *ta-* to show agreement with an understood 3PL subject. The person of the 2SG object is expressed by the suffix *-n* while its number is expressed by the plural object prefix *ka:-*. The same prefix *ka:-* also expresses the plurality of first- and third-person objects (see (13) below). Third-singular subjects and objects trigger no overt agreement, although I will include Øs in glosses to help keep track of verbal valency:

- (3) *cha:'lho'ho'ho'tzá' ya:wá:lh kí'wi' cha:'ká:m*
cha:-'lho'hó'ho'='tzá' Ø-Ø-Ø-ya:wá:-lh kí'wi' cha:'ká:m
 shin-perforated=now 3OBJ-SG.OBJ-3SG.SBJ-strike-PFV tree woodpecker
 'The woodpecker strikes the tree, making holes in its trunk.' (PS)

While plural non-human and lower-animate subjects do not always trigger agreement, third person animates and first- and second-persons always do, with some restrictions on certain combinations of person and number (Beck 2004, 2016).

All arguments in the clause are bare noun phrases. UNT lacks morphological cases and the closest thing it has to a preposition is the locative clitic *nak=*, which forms optional (adjunct) locative adverbial phrases:

- (4) *he:po'hó:' wi:lh ha'wáj naklha'mám*
he:po'hó:' Ø-wi:lh ha'wáj nak=lha'mám
 piled 3SG.SBJ-sit nixtamal LOC=pot
 'The nixtamal is piled up in the pot.' (SC)

The verb in (4) is *wi:lh* 'X sits' and the *nak=* phrase specifies the location where X is sitting. The location, however, is not an argument of *wi:lh*: it is not part of the verb's meaning and does not correspond to an event-participant or variable in its lexicographic definition.

Underived verbs in UNT are either monovalent (5), bivalent (6), or trivalent (7):

- (5) *xa'kha'chí: ktama'hawásli'*
i'x-i'k-ha'chi: i'k-tama'hawas-li'
 PST-1SG.SBJ-be.drunk 1SG.SBJ-fall.down-PFV
 'I was drunk and I fell down.' (RM)
- (6) *wi'x nakine'héya'*
wi'x na-kin-ne'he-ya'
 you FUT-1OBJ-SG.OBJ-fan-IPFV:2SG.SBJ
 'You're going to fan me (in the sweatlodge).' (BC)
- (7) *wan tzu'ma'já:t, kinta:tá' kista:'maxkí:n*
wan tzu'ma'já:t kin-ta:tá' kin-Ø-Ø-maxki:-n
 say girl 1PO-father 1OBJ-SG.OBJ-3SG.SBJ-give-2OBJ
 'Says the girl, my father gave me to you (in marriage).' (LB)

The single argument of monovalent verbs like those in (5) is, naturally, a subject, and the non-subject argument in underived bivalent verbs like (6) is a primary object (Beck 2016). While the first- and second-person objects both control agreement in the underived trivalent verb in (7), the primary object is the Recipient/Affected and the secondary object is the Theme. The main evidence for this is the effect of the suppressive antipassive suffix *-nin/-nun/-nan*, which targets the Recipient rather than the Theme, as shown in (8):

- (8) *na'kmaxki:nín kistánku'*
na-i'k-Ø-Ø-maxki:-nín *kin-stánku'*
 FUT-1SG.SBJ-**3OBJ-SG.OBJ-give-ANTIP**_{SUPPR} 1PO-younger.sibling
 'I'm going to give my younger sister away (in marriage).' (LB)
 (Not: 'I'm going to make gifts / a gift to my younger sister')

As we saw in (7), *maxkí*: 'X gives Y to Z' is normally trivalent, with both a Theme and a Recipient; however, when the antipassive *-nín* is added, the verb becomes bivalent and the Recipient is suppressed—it can no longer be expressed in the clause. As argued in Beck (2016), this suggests that the Recipient argument is more “privileged” in syntactic terms and so is a better candidate for primary object than the Theme.

There are no other underived valency classes, nor are there any other grammatical relations in UNT syntax than subject, primary object, and secondary object. UNT nevertheless has large numbers of multivalent stems with three, four, or even five objects, derived through an extensive set of causative and applicative morphemes. The more productive of the two causatives is a circumfix that can be applied to both monovalent and bivalent stems:

- (9) *ja: ma:púpu: ', xku'tánli'*
*ja: Ø-Ø-**ma:-pupu-u:-'*** *Ø-xku'tán-li'*
 NEG 3OBJ-SG.OBJ-**CAUS**-bubble-**CAUS**:2SG.SBJ:PFV 3SG.SBJ-sour-PFV
 'You don't boil it, it goes sour.' (DR)
- (10) *tama:ku'kí:lh tza'má pú:ru*
*Ø-Ø-ta-**ma:-ku'ka:-i:-lh*** *tza'má pú:ru*
 3OBJ-SG.OBJ-3PL.SBJ-**CAUS**-carry-**CAUS**-PFV that burro
 'They make the burro carry the load.' (MR)

Following the antipassive criterion, the Causee in the causatives of bivalent bases is the primary object. The second causative, *ma'ha-* ('STIMULUS'), adds an indirect cause to certain kinds of intransitive bases (e.g., *pu'n* 'X blossoms' < *ma'hapú'n* 'A causes X to blossom').

UNT also has an indefinite voice which suppresses the expression of the Actor:

- (11) *ja: kimaxki:kán kintapálh*
*ja: **kin**-Ø-maxki:-**kan*** *kin-tapálh*
 NEG **1OBJ-SG.OBJ-give-IDF** 1PO-price
 'I haven't been given my salary.' (LC)
- (12) *wi'x ma:ma'hta'ha'lhni:pá:'ka'*
*wi'x Ø-Ø-**ma:-ma'hta'ha'lh-ni:-pa:-'ka'***
 you **3OBJ-SG.OBJ-CAUS-guard-CAUS-PROG**:2SG.SBJ-**IDF**:2SG.SBJ
 'You have been made to guard it.' (MR)

In the first and third persons (11), this voice simply suppresses the subject and leaves the object(s) intact; with second persons (12), the erstwhile object triggers second-person subject agreement on the verb. The indefinite voice can also be used with monovalent verbs to express indefinite or generic Actors (e.g., *ni:kán* ‘(people) die [*ni:*]’). In this respect, the indefinite voice resembles the impersonal voices of European languages in that it affects subject of both transitive and intransitive verbs, although there is no option for expressing the agent in an oblique phrase as there is in, say, Dutch.

With some verbs, *-kan* forms can have reflexive interpretations—the overlap between agent suppression and reflexivity being reminiscent of the multiple functions of the Spanish *se*. The indefinite voice can also be combined with the antipassive to create verbs with zero syntactic valency (*tzo’hnunkán* ‘(people) write [*tzo’h-*]’).

3 Applicatives in UNT

UNT has five applicatives—four prefixes (*li:-* ‘INSTRUMENTAL’, *ta:-* ‘COMITATIVE’, *la’h-* ‘ALLATIVE’, and *pu:-* ‘CONTAINING INSTRUMENTAL’) and one suffix (*-ni* ‘BENEFACTIVE’). These applicatives are freely combinable both with each other and with the causatives, creating complex multivalent verbs like that in (13):²

- (13) *a’htú’ chiwíx i’ka:ta:’pu:la’hmakamílh tza’ká:t kistánku’ tza’má chi’xkú’*
a’h-tu’ chiwíx i’k-ka:-ta:’-pu:-la’h-makamín-lh tza’ká:t
 CLF-two rock 1SG.SBJ-PL.OBJ-CINST.APPL-CTNR-ALL.APPL-throw-PFV sling
kin-stánku’ tza’má chi’xkú’
 1PO-younger.sibling that man
 ‘I and my brother threw two rocks at that man with a sling.’ (LB)

The verb in (13) is *ta:’pu:la’hmakamín* ‘X throws Y at G using N along with C’, formed from *makamín* ‘X throws Y’ in combination with the comitative applicative *ta:-*, which adds a Co-Actor (C) role to the verb, the allative applicative *la’h-*, which adds a Goal (G), and the containing instrumental *pu:-*, which adds a Containing Instrument (N). The applied objects added by applicatives are secondary objects (Beck 2016), and so in that sense resemble the prepositional objects required by the English gloss to express the non-Patient/Theme semantic roles. Note that in (13) the controller of agreement is the plural primary object (*a’htú’ chiwíx* ‘two rocks’); however, secondary objects can also control agreement, as seen in (7) above, and in (15) and (42) below. First- and second-person objects always control agreement; competition for control of agreement by third-persons is resolved on the basis of topicality and other discourse factors.

2 The four prefixal applicatives have a “preferred” order *li:-* >> *tq:-* >> *pu:-* >> *la?*; however, there are verbs where the order is different, reflecting distinct derivational histories.

Applicatives play a functional role in UNT grammar analogous to that of prepositions and oblique “semantic” cases in other languages, and are promiscuous in the sense that they combine with almost any verbal base. Applicative forms account for 1,080/4,754 verbal headwords in the UNT lexical database, and speakers readily accept novel forms when these are suggested in an appropriate context. As derivational elements used in word formation, applicatives affect the meaning of their bases in a variety of ways: many uses of all five applicatives are entirely compositional, while others are non-compositional but transparent (i.e., psychologically plausible), and still others are fossilized and idiomatic—although, as I will show in the following sections, even these are by and large associated with fairly consistent semantic domains.

3.1 *-ni'* ‘BENEFACTIVE’

The benefactive applicative, *-ni'*, appears in 293 lexical entries representing 251 independent derivations.³ More so than the other applicatives discussed below, *-ni'* has a broad range of semantic effects on its base, adding participants in a variety of non-Patient roles resembling those marked with dative case in Indo-European languages (particularly, and likely not coincidentally, indirect objects in Spanish). The overall effect of the benefactive applicative is to add an event-participant that is lower than a Patient on the scale of typical semantic features of transitive objects (Hopper and Thompson 1980); given that these semantic features are somewhat heterogeneous, it is not surprising that the specific semantic roles associated with *-ni'* are as well.

Over half of the benefactive forms in the lexical database add a semantic role that we can characterize as Affected (159 entries, 152 independent derivations)—a participant less directly involved in the action than a Patient but which nevertheless experiences some effect from it. Several of these forms are given in Table 1. In all of these examples, *-ni'* adds an event participant (B) whose interests are impacted either positively (*la'hka:nani'* ‘X weeds a crop for B’), negatively (*ha'lha:ni'* ‘X steals Y from B’), or in an indeterminate or context-specific way (*la'htzini'* ‘X looks at Y belonging to B’).

Table 1: *-ni'* Affected.

<i>chu'lani'</i> ‘X rinses out Y for B’	(< <i>chu'lá</i> ‘X rinses out Y’)
<i>ha'lha:ni'</i> ‘X steals Y from B’	(< <i>ha'lhá:n</i> ‘X steals Y’)
<i>he:ma:kti:ni'</i> ‘X removes Y from Z’s back for B’	(< <i>he:ma:kti:</i> ‘X removes Y from Z’s back’)
<i>la'hka:nani'</i> ‘X weeds a crop for B’	(< <i>la'hka:nán</i> ‘X weeds a crop’)
<i>laksakni'</i> ‘X chooses Y for B’	(< <i>laksák-</i> ‘X chooses Y’)

³ “Independent” derivations are those based on different roots or derived stems, excluding antipassives, anticausatives, and causatives of previously counted applicative forms, as well as combinations of previously counted applicative bases with an additional applicative.

Table 1 (continued)

<i>la'htzini'</i> 'X looks at Y belonging to B'	(< <i>la'htzín</i> 'X sees Y')
<i>la'hwani'</i> 'X disintegrates affecting B'	(< <i>la'hwán</i> 'X disintegrates')
<i>lhta'nhni'</i> 'X pulls Y belonging to B'	(< <i>lhta'nhk-</i> 'X pulls Y')
<i>makwani'</i> 'X suffices for B'	(< <i>makwán</i> 'X suffices')
<i>ma:sputu:ni'</i> 'X uses up Y belonging to B'	(< <i>ma:sputú:</i> 'X uses up Y')
<i>pu:la'hwaxtuni'</i> 'X eats the insides of Y belonging B'	(< <i>pu:la'hwaxtú</i> 'X eats the insides of Y')
<i>tatu'kxni'</i> 'X breaks affecting B'	(< <i>tatú'kx-</i> 'X breaks')
<i>tu'ksni'</i> 'X hits Y affecting B'	(< <i>tu'ks-</i> 'X hits Y')

Benefactives can be formed from monovalent (14), bivalent (15), and multivalent (16) bases:

- (14) *kilaktzu'nuni'má:lh kila:xáx*
kin-Ø-Ø-lak-tzu'nu-ni'-ma:lh *kin-la:xáx*
 1OBJ-SG.OBJ-3SG.SBJ-INTNS-shrivel-BEN.APPL-PROG 1PO-orange
 'My oranges are shrivelling up on me.' (PS)
- (15) *kinha'lha:ni'ka' kinkawa:yúj*
kin-Ø-ha'lha:n-ni'-ka' *kin-kawa:yúj*
 1OBJ-SG.OBJ-steal-BEN.APPL-IDF 1PO-horse
 'My horse was stolen from me.' (LB)
- (16) *kakinhe:ma:'kti:ni'chi' tza'má tzu'ma'já:t kis'á'ta', wan chi'xkú'*
ka-kin-he:-ma:'kti:-ni'-chi' *tza'má tzu'ma'já:t kin-s'á'ta'*
 OPT-1OBJ-SG.OBJ-back-remove-BEN.APPL-DIST:2SG.SBJ that girl 1PO-child
wan chi'xkú'
 say man
 'Take my child off that girl's back there for me! says the man.' (PS)

The sentence in (14) is based on *laktzu'nuni'* 'X shrivels up on B', from the monovalent *laktzu'nú* 'X shrivels up', while *ha'lha:ni'* 'X steals Y from B' in (15) is derived from bivalent *ha'lhá:n* 'X steals Y'. The verb in (16) is *he:ma:'kti:ni'* 'X removes Y from Z's back for B', which is based on the trivalent verb *he:ma:'kti:* 'X removes Y from Z's back'.

As with all applied objects in UNT, the benefactive object is a secondary object, as we can see in the following examples illustrating the usage of the antipassive form of the verb *ha'lha:ni'* 'X steals Y from B' (seen in [15] above):

- (17) *kit i'kha'lha:nani'n wi'x*
kit i'k-Ø-ha'lhá:n-nan-ni'-n *wi'š*
 I 1SG.SBJ-SG.OBJ-steal-ANTIP_{SUPPR}-BEN.APPL-2OBJ you
 'I stole from you.' (LB)

As shown in Beck (2016), primary objects are distinguished from secondary objects in that the former, and not the latter, are suppressed by the antipassive suffix; in (17) it is the basic object, not the applied object expressing the Affected, that is removed from the clause. This is different from the pattern reported for Tlachichilco Tepehua (Watters 1987) and Papantla Totonac (Levy 2002), where benefactive applied objects (but not other applied objects) are primary objects.

Not unexpectedly, the benefactive applicative can also add a Recipient (28 lexical entries, 20 independent derivations). Several examples are shown in Table 2. The Recipient role in these verbs corresponds not only to the endpoint in verbs of transfer (*maka:ni'* 'X sends Y to B'), but also to the recipient in verbs of sharing (*kilhche'heni'* 'X shares a chunk of Y with B') and paying/owing (*lakle:ni'* 'X owes Y to B').

Table 2: *-ni'* Recipient.

<i>kilhche'heni'</i> 'X shares a chunk of Y with B'	(< <i>kilhche'hé</i> 'X breaks off a chunk of Y')
<i>lakle:ni'</i> 'X owes Y to B'	(< <i>laklé:n</i> 'X owes Y')
<i>le:ni'</i> 'X takes Y to B'	(< <i>le:n</i> 'X takes Y')
<i>li:maka:ni'</i> 'X holds Y out to B'	(< <i>li:maká:n</i> 'X holds Y out')
<i>li:mini'</i> 'X brings Y to B'	(< <i>li:mín</i> 'X brings Y')
<i>maka:ni'</i> 'X sends Y to B'	(< <i>maká:n</i> 'X sends Y')
<i>makamini'</i> 'X throws Y to B near speaker'	(< <i>makamín</i> 'X throws Y towards speaker')
<i>tama'hxte'hni'</i> 'X is left for B'	(< <i>tama'hxte'h-</i> 'X is left there')
<i>xo'honi'</i> 'X gives Y in payment to B'	(< <i>xo'hó</i> 'X gives Y in payment')
<i>xte'hni'</i> 'X leaves Y for B'	(< <i>xte'h-</i> 'X leaves Y behind')

The benefactive also adds Addressees to expressions of verbal and non-verbal communication (32 entries, 24 independent derivations). A few examples are given in Table 3. Several forms in this group are trivalent and include the message as an argument (*wani'* 'X says Y to B'); however, UNT also has a number of monovalent verbs of vocalization (*pixlí:* 'X sings', *ta'sá* 'X vocalizes') and gesture (*makawán* 'X makes a sound or gesture with hands') that, when affixed with *-ni'*, create verbs of communication that do not include the message as part of their valency.

Table 3: *-ni'* Addressee.

<i>helhaski'ni'</i> 'X asks B about Y'	(< <i>helha-</i> 'mouth' + <i>ski'n</i> 'X asks for Y')
<i>helhpanhni'</i> 'X betrays a confidence to B'	(< <i>helhpánh-</i> 'X betrays a confidence')
<i>helhs'olini'</i> 'X whistles at B'	(< <i>helhs'olí</i> 'X whistles')
<i>makawani'</i> 'X waves to B'	(< <i>makawán</i> 'X makes a sound or gesture with hands')
<i>pixlí:ni'</i> 'X sings to B'	(< <i>pixlí:</i> 'X sings')
<i>ta'sani'</i> 'X calls out to B'	(< <i>ta'sá</i> 'X vocalizes')
<i>tzo'hni'</i> 'X writes Y to B'	(< <i>tzo'h-</i> 'X writes Y')
<i>wani'</i> 'X says Y to B'	(< <i>wan</i> 'X says Y')

In addition to these three semantic roles, all of which are indirectly affected by the action of the Actor, there are roles associated with the benefactive where the participant is essentially unaffected by or peripheral to the event. For instance, the database contains 11 entries (9 independent derivations) where the applied object expresses a stimulus for some kind of emotional state (Table 4). Another set of 20 entries (14 independent derivations) add a participant that acts as a spatial reference point for the event. Several of these are shown in Table 5. Note that in those cases where the action of the verb is directed towards the new participant, that participant is not the actual endpoint or physical target of the action, which distinguishes these uses of *-ni'* from the allative *la'h-* (§ 3.4). For some of the forms in this group (e.g., *tza:'laní'* 'X runs away from B') the new semantic role may in fact be more a Motive—or at least an entity that motivates the action—than a Direction, and so these might be more akin to those in Table 4.

Table 4: *-ni'* Emotional stimulus.

<i>jikwaní'</i> 'X is afraid of B'	(< <i>jikwán</i> 'X feels fear')
<i>lha'hwaní'</i> 'X gets tired of B'	(< <i>lha'hwán</i> 'X gets tired')
<i>ma:xananí'</i> 'X is ashamed in front of B'	(< <i>ma:xanán</i> 'X is ashamed')
<i>si:'tzi:ní'</i> 'X gets angry with B'	(< <i>si:'tzi:</i> 'X gets angry')

Table 5: *-ni'* Direction.

<i>he:mini'</i> 'X turns X's back on B'	(< <i>he:mín</i> 'X stands with back (<i>he:-</i>) to speaker')
<i>kilhwani'</i> 'X opens one's mouth at B'	(< <i>kilhwán</i> 'X opens X's mouth')
<i>la'hatze'hni'</i> 'X hides X's face from B'	(< <i>la'hatzé'h-</i> 'X hides X's face')
<i>pu:'laní'</i> 'X leads B'	(< <i>pu:'lá</i> 'X goes first')
<i>sta:laní'</i> 'X follows B'	(< <i>sta:lá</i> 'X comes behind')
<i>tza:'laní'</i> 'X runs away from B'	(< <i>tza:'lá</i> 'X flees')

In another group of *-ni'* forms (31 entries, 20 independent derivations), the applicative adds what seems to be a Ground—that is, an entity that frames or defines the locus of the event (Table 6). Many of these forms are derived from verbs built on stative bases—either bound roots like *-nu:* 'inside, contained' and *-xtu* 'outside, projecting', or stative posture verbs like *wilá* 'be seated'. The semantic role of Ground is the only one associated with the benefactive that is typically inanimate and non-human. There are also 12 independent derivations in the database that have idiosyncratic meanings.

Table 6: *-ni'* Ground.

<i>la'hnu:ní'</i> 'X is stuck in B'	(< <i>la'hnú:</i> 'X is stuck')
<i>ma:'hs'oní'</i> 'X illuminates B'	(< <i>ma:'hs'ó</i> 'X casts light')
<i>ma:nu:ní'</i> 'X puts Y into B'	(< <i>ma:nú:</i> 'X puts Y in')

Table 6 (continued)

<i>ma:xtuní</i> 'X takes Y out of B'	(< <i>ma:xtú</i> 'X takes Y out')
<i>pu'ní</i> 'X buds on B'	(< <i>pu'n</i> 'X buds')
<i>taxtuní</i> 'X comes out of B'	(< <i>taxtú</i> 'X leaves')
<i>wilaní</i> 'X is placed on B'	(< <i>wilá</i> 'X is seated')
<i>xtu'tuní</i> 'X sucks Y from B'	(< <i>xtu'tú</i> 'X sucks on Y')
<i>yujní</i> 'X falls off of B'	(< <i>yuj-</i> 'X descends')

In addition to verbs where *-ni'* acts as an applicative, adding an object, there are 14 verbs (12 independent derivations) in which *-ni'* does not increase the valency of its base (Table 7), but instead simply changes the semantic role of a non-Actor participant from a Patient- or Theme-like role to something lower on Hopper and Thompson's (1980) scale of semantic transitivity. Consider, for example, the sentences in (18) and (19) based on the verb *la'hamilí*: 'X covers Y's face with a cloth' and its *-ni'* form, *la'hamili:ni'* 'X shelters B's face with a cloth':

- (18) *kila'hamilí:lh*
kin-Ø-Ø-la'ha-mili:-lh
 1OBJ-SG.OBJ-3SG.SBJ-face-cover-PFV
 'It covered my face.' (RM)
- (19) *na'kla'hamili:ní kis'á'ta' ja: kasnó'hli' ú:'ni'*
na-i'k-Ø-Ø-la'ha-mili:-ni' *kin-s'á'ta' ja:*
 FUT-1SG.SBJ-3OBJ-SG.OBJ-face-cover-BEN.APPL 1PO-child NEG
ka-Ø-Ø-sno'h-li' *ú:'ni'*
 OPT-3OBJ-SG.OBJ-3SG.SBJ-whip-PFV air
 'I'm going to cover my child so that the wind doesn't blow on her.' (RM)

The base form here in (18) is used when the cloth is in direct contact with the person or object being covered (the same form could be used, for example, when talking about covering a plate of food to keep it warm), whereas in (19) what is being covered, the child, is not necessarily in contact with the cloth—for instance, the child could be in a cradle with a blanket draped over it or carried in someone's arms under a shawl. The use of *-ni'* here is semantically related to the benefactive applicative in that the action affects the child, but the child is not directly/physically involved. Because the applied object added by *-ni'* is a secondary object, the lower semantic transitivity is accompanied by lower syntactic transitivity: the primary object is exchanged for a secondary object (an object inaccessible to suppression by the antipassive), making *la'hamili:ni'* syntactically intransitive.

Table 7: Detransitivizing *-ni'*.

<i>a'hahi:ni'</i> 'X believes B's words'	(< <i>a'hahí</i> : 'X believes idea Y')
<i>la'halhtalaní</i> 'X locks B in by jamming the door'	(< <i>la'halhtalá</i> 'X covers opening Y with a board')
<i>la'hamili:ni'</i> 'X shelters B with a cloth'	(< <i>la'hamilí</i> : 'X covers Y's face with a cloth')
<i>lakpuwani'</i> 'X desires B'	(< <i>lakpuwán</i> 'X thinks about Y')
<i>lhajani'</i> 'X makes a profit on B'	(< <i>lhajá</i> 'X earns wage Y')
<i>ma'hla'htzini'</i> 'X serve as a midwife to B'	(< <i>ma'hla'htzín</i> 'X sees another person's Y')
<i>pi'tani'</i> 'X presses B (e.g., button)'	(< <i>pi'tá</i> 'X pokes Y causing discomfort')
<i>wili:ni'</i> 'X puts B up against object; X strikes B'	(< <i>wilí</i> : 'X places Y')
<i>xki'yuju:ni'</i> 'X scrubs B off a surface'	(< <i>xki'tyujú</i> : 'X scrubs Y')
<i>x'a'ha:yuju:ni'</i> 'X wipes B off a surface'	(< <i>x'a'ha:yujú</i> : 'X wipes Y clean')

Similarly, the last two examples in Table 7 are based on a bound stem *-yuju*: 'X takes Y down' (< *yuj*: 'X descends' + *-u*: 'TRANSITIVIZER') and describe the action of wiping or scrubbing a substance off of something. Without *-ni'*, what is being cleaned is expressed as the primary object (20), but in the *-ni'* form, the applied object expresses the substance being removed (21):

- (20) *i'kli:a'kpu:x'a'hayujú: mesa kili:x'a'hán*
i'k-Ø-Ø-li:-a'kpu:-x'a'hayuju: *mesa kin-li:-x'a'há-n*
 1SG.SBJ-3OBJ-SG.OBJ-INST.APPL-wipe.clean table 1OBJ-INST.APPL-scrape-NMZ
 'I'm wiping the tabletop with my brush' (PS)
- (21) *x'a'ha:yuju:ni'má:lh pintura nakmesa*
Ø-Ø-Ø-x'a'ha:yuju:-ni'-ma:lh *pintura nak=mesa*
 3OBJ-SG.OBJ-3SG.SBJ-wipe.clean-BEN.APPL-PROG paint LOC=table
 'She wipes away the paint from the table.' (RM)

The verb in (21) is not transitive because the endpoint of the action is not a discrete or individuated object but a substance. Substances are low on the scale of semantic transitivity, which motivates the verb's syntactic intransitivity (i.e., its lack of a primary object). While *-ni'* does not count as an applicative in forms in Table 7, the association of both applicative and non-applicative *-ni'* with non-Actor participants on the lower end of the scale of semantic transitivity points to an etymological connection between them.

3.2 *li:-* 'INSTRUMENTAL'

The most prolific of the UNT applicatives is the instrumental *li:-*, which appears in 551 lexical entries representing 490 independent derivations in the lexical database. The instrumental applicative has two functions: one is to add the semantic role of Instrument/Mean (I) to the valency of its base, the other to add the Reason (R) for which an

event occurs. In either function, the instrumental applicative is near-freely combinable with any verb expressing an action that can be performed with some sort of implement or for any kind of motive.

In the database, there are 292 lexical entries (261 independent derivations) where *li:-* adds an Instrument or a Means to the valency of its base—that is, it adds an applied object expressing either some implement or tool deliberately used by the Actor, or some entity that serves as a means of realizing the action expressed by the verb. As we can see in Table 8, *li:-* combines with monovalent (*kuxtú-* ‘X weeds’), bivalent (*nik-* ‘X clubs Y’), and multivalent bases (*ma:wí-* ‘X feeds Y to Z’).

Table 8: *li:-* Instrument/Means.

<i>li:ha'pí</i> ‘X locks Y with I’	(< <i>ha'pí</i> ‘X locks Y’)
<i>li:ho'nún</i> ‘X drinks I’	(< <i>ho'nún</i> ‘X drinks’)
<i>li:lhawá</i> ‘X makes Y out of I’	(< <i>lhawá</i> ‘X makes Y’)
<i>li:kuxtú</i> ‘X weeds with I’	(< <i>kuxtú</i> ‘X weeds’)
<i>li:ku'chú:</i> ‘X heals Y with I’	(< <i>ku'chú:</i> ‘X heals Y’)
<i>li:lhká:</i> ‘X measures the length of Y with I’	(< <i>lhka:</i> ‘X measures the length of Y’)
<i>li:ma:wí:</i> ‘X feeds Y to Z using I’	(< <i>ma:wí:</i> ‘X feeds Y to Z’)
<i>li:ník-</i> ‘X clubs Y with I’	(< <i>nik-</i> ‘X clubs Y’)
<i>li:slantá</i> ‘X glues Y with I’	(< <i>slantá</i> ‘X glues Y’)
<i>li:sná't-</i> ‘X winds Y around I’	(< <i>sna't-</i> ‘X twists Y’)

There are also 96 lexical entries (69 independent derivations) where *li:-* adds an Integrant—an entity that is involved in or makes possible the event but is not deliberately wielded by the Actor (Table 9). The applied objects in these forms are, broadly-speaking, inanimate non-Patient participants or abstractions unaffected by the event or action of the Actor. This set includes 16 forms derived from one of 4 motion verbs that express events of taking/bringing (e.g., *le:n* ‘X takes I’ < *a'n* ‘X goes’; *li:chín* ‘X arrives here with I’ < *chín* ‘X arrives here’).

Table 9: *li:-* Integrant.

<i>le:n</i> ‘X takes I’	(< <i>a'n</i> ‘X goes’)
<i>li:a'hachuyá:</i> ‘X hears I that isn’t there’	(< <i>a'hachuyá:</i> ‘X has auditory hallucinations’)
<i>li:a'hlhche'hxlá</i> ‘X trips on I’	(< <i>a'hlhche'hxlá</i> ‘X stumbles’)
<i>li:chú:n</i> ‘X arrives there with I’	(< <i>chú:n</i> ‘X arrives there’)
<i>li:chín</i> ‘X arrives here with I’	(< <i>chín</i> ‘X arrives here’)
<i>li:chiwi:nán</i> ‘X speaks about I’	(< <i>chiwi:nán</i> ‘X speaks’)
<i>li:kinkalá</i> ‘X reeks of I’	(< <i>kinkalá</i> ‘X reeks’)
<i>li:lhti'pí'n</i> ‘X (water) is made murky by I’	(< <i>lhti'pí'n</i> ‘X (water) is murky’)
<i>li:pa:stá'k-</i> ‘X is reminded of Y by I’	(< <i>pa:stá'k-</i> ‘X remembers Y’)
<i>li:pa'lha:nán</i> ‘X vomits up I’	(< <i>pa'lha:nán</i> ‘X vomits’)
<i>li:pixkú'n</i> ‘X gets mumps from I’	(< <i>pixkú'n</i> ‘X has mumps’)

Table 9 (continued)

<i>li:pixlí:</i> ‘X sings I’	(< <i>pixlí:</i> ‘X sings’)
<i>li:smaní:</i> ‘X is accustomed to I’	(< <i>smaní:</i> ‘X feels at ease’)
<i>li:mín</i> ‘X brings I’	(< <i>mín</i> ‘X comes’)

The *li:-* applicative is also used to add a Reason for an event occurring, as in (22):

- (22) *xa'ka:namá:lh tza'má chi'xkú', katu:wálh li:xa'ká:*
Ø-xa'ka:nan-ma:lh tza'má chi'xkú' katu:wálh
 3SG.SBJ-get.angry-PROG that man anything
Ø-Ø-Ø-li:-xa'ká:
 3OBJ-SG.OBJ-3SG.SBJ-INST.APPL-get.angry
 ‘That man is always scolding, he gets mad about anything.’ (CF)

While there are 164 lexical entries where *li:-* has exclusively this effect on the meaning of its base (Table 10), it is difficult to meaningfully quantify words of this type. This is both because *li:-* Reason seems to be almost universally applicable (and so the number of entries in the database is at best a convenience sample), and because *li:-* Reason forms can be derived from the same bases as *li:-* Instrument forms, creating homophonous words with different senses:

- (23) *kili:lhtu'kúlh cha:'tín hó'ni' a'htín kuchí:lu*
kin-Ø-Ø-li:-lhtu'ku-lh cha:'tín hó'tni' a'h-tin kuchí:lu
 1OBJ-SG.OBJ-3SG.SBJ-INST.APPL-stab-PFV CLF-one drunk.person CLF-one knife
 ‘The drunk stabbed me with the knife.’ (PS)
- (24) *kili:lhtu'kúlh wa:má wa:káx i's'á'ta'*
kin-Ø-Ø-li:-lhtu'ku-lh wa:má wa:káx i'x-s'á'ta'
 1OBJ-SG.OBJ-3SG.SBJ-INST.APPL-stab-PFV this cow 3PO-child
 ‘The cow gored me because of its calf.’ (RM)

Here, we seem to have two different senses of *li:lhtu'kú* < *lhtu'kú* ‘X stabs Y’)—‘X stabs Y with I’ (23) and ‘X stabs I because of R’ (24). This might lead us posit two homophonous prefixes, one which adds Instruments and the other Reasons; however, there are a couple of arguments against this. One is simply distributional: the two hypothetical affixes never seem to co-occur and speakers do not accept suggested forms with two instance of *li:-* or with meanings along the lines of ‘X Vs with I because of R’. The other argument is that Reasons and Instruments occupy adjacent semantic domains, and some of the verbs formed with *li:-* add participants that could also be thought of as reasons for an event taking place (e.g., *li:la'hawi'tí* ‘X is made dizzy by I’, *li:taku'xatzí:* ‘X feels

suffocated by I' < *taku'xatzí*: 'X feels suffocated'). It seems more likely that Instrument vs. Reason is a context-driven interpretation of a single element with a vaguer meaning.

Table 10: *li*:- Reason.

<i>li:a'htuyún</i> 'X worries about R'	(< <i>a'htuyún</i> 'X worries')
<i>li:a'kchuyá</i> : 'X acts crazy because of R'	(< <i>a'kchuyá</i> : 'X acts crazy')
<i>li:ka'tzán</i> 'X feels pain because of R'	(< <i>ka'tzán</i> 'X feels pain')
<i>li:kú'n</i> 'X swells up because of R'	(< <i>ku'n</i> 'X is swollen')
<i>li:la'hlih'óp-</i> 'X melts because of R'	(< <i>la'hlih'óp-</i> 'X melts')
<i>li:lhtatá</i> 'X feels sleepy because of R'	(< <i>lhtatá</i> 'X sleeps')
<i>li:ma:xanán</i> 'X is ashamed because of R'	(< <i>ma:xanán</i> 'X is ashamed')
<i>li:ní</i> : 'X dies because of R'	(< <i>ní</i> : 'X dies')
<i>li:ská:k-</i> 'X dries out because of R'	(< <i>ská:k-</i> 'X dries out')
<i>li:taxtú</i> 'X leaves because of R'	(< <i>taxtú</i> 'X leaves')

An interesting feature of the Reason use of *li*:-, one certainly tied to its promiscuity and textual frequency, is that it has a constructional use in expressions that are equivalent to English *that's why* and *because* clauses:

- (25) *lhú:wa' wi:lh xka:n, u:tzá: li:luh:wán xuj*
lhú:wa' Ø-wi:lh xka:n u:tzá: Ø-li:-luh:wán xuj
 many 3SG.SBJ-sit water that 3SG.SBJ-INST.APPL-be.many mosquito
 'There is a lot of water, that's why there are so many mosquitos.' (LA)

- (26) *li:taxtúlh i tza'má hawá'cha' xlhawasti:kán*
 Ø-Ø-Ø-li:-taxtu-lh i tza'má hawá'cha'
 3OBJ-SG.OBJ-3SG.SBJ-INST.APPL-leave-PFV JUNCT that boy
i'x-Ø-Ø-lhawasti:-kan
 PST-3OBJ-SG.OBJ-mistreat-IDF
 'The boy left because he was treated badly.' (RM)

Rather than using a conjunction to relate an event and its reason for occurring, Totona-can languages add an instrumental applicative to the main verb and express the reason in a separate clause that functions as the applied object. Sentences like (26) are used most frequently by older speakers, while younger speakers tend to use the borrowed Spanish conjunction *porque* instead.

3.3 *ta:'*- ‘COMITATIVE’

The comitative applicative, *ta:'*-, appears in 139 entries (84 independent derivations). In the most general sense, *ta:'*- adds a Co-Actor (C) or some other entity that co-performs or assists the Agent in carrying out the event described by the verb.

In 39 independent forms, including those shown in Table 11, *ta:'*- adds an animate Co-Actor, and speakers readily accept novel suggested forms with this meaning. The comitative can be added to monovalent (*ta:'á'n* ‘X goes with C’ < *a'n* ‘X goes’) and bivalent verbs (*ta:'x'á:* ‘X shucks Y with C’ < *x'a:* ‘X shucks corn’), as well as to more complex stems formed with causatives (27) and other applicatives (28):

- (27) *na'kta:'ma:tanhapu:yá:n minkí'wi'*
na-i'k-Ø-ta:'-ma:tanhapu:ya:-n *min-kí'wi'*
 FUT-1SG.SBJ-SG.OBJ-CMT.APPL-CAUS-at.hill.bottom-IPFV-2OBJ 2PO-tree
 ‘I’m going to get your wood down the slope with you.’ (SC)
- (28) *nai'ka:ta:'li:tanká: pu:laktín kí'wi' chí'xkuwín kimachi:tká'n*
na-i'k-Ø-ka:-ta:'-li:-tan-ka: *pu:lak-tin kí'wi'*
 FUT-1SG.SBJ-3OBJ-PL.OBJ-CMT.APPL-INST.APPL-buttocks-chop CLF-one tree
chí'xkú'-win kin-machi:t-ka'n
 man-PL 1PO-machete-PL.PO
 ‘I and the men will cut down a tree with our machetes.’ (LB)

The verb in (27) is *ta:'ma:tanhapú:* ‘X helps C get Y down a hill’, derived from the causative stem *ma:tanhapú:* ‘A takes X down a hill’ (< *tanhapú:* ‘X is at the bottom of a slope’). In (28), *ta:'li:tanká:* ‘X with C chops Y down using I’ is based on *li:tanká:* ‘X chops Y down using I’ (< *li:-* ‘INSTRUMENTAL’ + *tanká:* ‘X chops Y down’). In both examples, the Co-Actor controls object agreement.

Table 11: *ta:'*- Co-Actor.

<i>ta:'á'n</i> ‘X goes with C’	(< <i>a'n</i> ‘X goes’)
<i>ta:'chiwi:nán</i> ‘X converses with C’	(< <i>chiwi:nán</i> ‘X speaks’)
<i>ta:'hama:nán</i> ‘X plays a game with C’	(< <i>hama:nán</i> ‘X plays a game’)
<i>ta:'la'hslá'h-</i> ‘X helps C stir Y’	(< <i>la'hslá'h-</i> ‘X stirs Y’)
<i>ta:'lá</i> ‘X performs an activity with C’	(< <i>la</i> ‘X performs an activity’)
<i>ta:'li:tanká:</i> ‘X with C chops Y down using I’	(< <i>li:tanká:</i> ‘X chops Y down using I’)
<i>ta:'ma:tanhapú:</i> ‘X helps C get Y down a hill’	(< <i>ma:tanhapú:</i> ‘X takes Y down a hill’)
<i>ta:'pu:la'hmakamín</i> ‘X with C shoots Y at G using I’	(< <i>pu:la'hmakamín</i> ‘X shoots Y at G using I’)
<i>ta:'pu'tzá</i> ‘X searches for Y with C’	(< <i>pu'tzá</i> ‘X searches for Y’)
<i>ta:'x'á:</i> ‘X shucks Y (corn) with C’	(< <i>x'á:</i> ‘X shucks Y [corn]’)

Eleven independent comitative forms express an event where the Actor shares a mental state—either literally (*ta:'li:ka'tzì:* ‘X agrees with C with respect to Y’ < *li:ka'tzì:* ‘X agrees to/about Y’) or vicariously (*ta:'pa:tí:* ‘X feels C’s suffering’ < *pa:tí:* ‘X suffers’)—with a Co-Experiencer (Table 12). The forms here are divided between those with *ta:'* alone and those forms that have both *ta:'* and the reciprocal *la:-*. In the latter cases, the comitative has no effect on the valency of the basic verb, but instead “retransitivizes” a detransitivized reciprocal verb form:

- (29) *ja: lakahí, ja: ta:'to:laku'tún*
ja: Ø-Ø-Ø-lakahí: *ja: Ø-Ø-Ø-ta:'-tawilá-ku'tún*
 NEG 3OBJ-SG.OBJ-3SG.SBJ-like NEG 3OBJ-SG.OBJ-3SG.SBJ-CMT.APPL-sit-DS
 ‘She doesn’t like him, she doesn’t want to marry (lit. sit with) him.’ (CF)
- (30) *xlaká'n xtala:s'o'ha:lha:'wán porque tala:lakahí:*
xlaká'n i'x-ta-la:-s'o'há-lha:'wán porque ta-la:-lakahí:
 they PST-3PL.SBJ-RCP-hug-walk because 3PL.SBJ-RCP-like
 ‘They walk around embracing each other because they like each other.’ (NS)
- (31) *kata:'la:lakahí:*
ka-Ø-Ø-ta:'-la:-lakahí:
 OPT-3OBJ-SG.OBJ-CMT.APPL-RCP-like:2SG.SBJ:PFV
 ‘May you and she like each other!’ (LC)

The transitive verb *lakahí:* ‘X likes Y’ is shown in (29). Its reciprocal form in (30) (*la:lakahí:* ‘X and Y like each other’) is intransitive and obligatorily has a plural subject, whereas the comitative form in (31) (*ta:'la:lakahí:* ‘X is mutually fond of Y’) has a singular subject and is once again transitive. In this form, *la:-* allows for the expression of mutuality, but the comitative allows the point of view of one of the two participants to be taken, that participant being expressed as the subject.

Table 12: *ta:'* Co-Experiencer.

<i>ta:'ka'tzanajwán</i> ‘X feels C’s pain’	(< <i>ka'tzanajwán</i> ‘X feels pain’)
<i>ta:'la'halhu:má:n</i> ‘X sympathizes with C’	(< <i>la'halhu:má:n</i> ‘X sympathizes with Y’)
<i>ta:'la:lakahí:</i> ‘X and C are attracted to each other’	(< <i>lakahí:</i> ‘X likes Y’)
<i>ta:'la:pa:xkí:</i> ‘X loves C who reciprocates’	(< <i>pa:xkí:</i> ‘X loves Y’)
<i>ta:'la:la'htzín</i> ‘X watches out for C’s interests’	(< <i>la'htzín</i> ‘X sees Y’)
<i>ta:'la:lén</i> ‘X gets along with C’	(< <i>le:n</i> ‘X takes Y’)
<i>ta:'li:ka'tzì:</i> ‘X agrees with C with respect to Y’	(< <i>li:ka'tzì:</i> ‘X is in agreement about Y’)
<i>ta:'li:puwán</i> ‘X feels sadness for C’	(< <i>li:puwán</i> ‘X feels sadness’)
<i>ta:'ma'hka'tzì:</i> ‘X feels C’s physical discomfort’	(< <i>ma'hka'tzì:</i> ‘X feels a physical sensation’)
<i>ta:'pa:tí:</i> ‘X feels C’s suffering’	(< <i>pa:tí:</i> ‘X suffers’)
<i>ta:'tala'hapu'tzì:</i> ‘X feels compassion for C’s loss’	(< <i>tala'hapu'tzì:</i> ‘X suffers a loss’)

The comitatives in Tables 11 and 12 add either Co-Actors or Co-Experiencers to the valency of their bases, and so conform to our general expectations of the semantic effect of a comitative. There are, however, 8 independent forms where the applied phrase expresses what might be called an Accessory—an event-participant that accompanies the Actor in some sense but does not necessarily perform the same action or experience the same mental state (Table 13). The applied object in these verbs expresses an additional participant that is in close proximity to or joined with the Actor, as seen in these examples based on *ta:'tamá:* 'X lies down with C' (< *tamá:* 'X lies down'):

Table 13: *ta:'-* Accessory.

<i>ta:'la:chi'pá</i> 'X and C are stuck to each other'	(< <i>chi'pá</i> 'X is stuck to Y')
<i>ta:'la:li:tapi'tzí</i> 'X and C have neighbouring land'	(< <i>la:li:tapi'tzí</i> 'X has neighbouring land' [pl. subj.])
<i>ta:'la:pe'hxtó'h-</i> 'X and C are close to each other'	(< <i>pe'hxtó'h-</i> 'X is close to Y')
<i>ta:'stúk-</i> 'X is joined with C end to end'	(< *- <i>stuk</i> 'joined')
<i>ta:'tala'hxtó'h-</i> 'X and C get together'	(< <i>tala'hxtó'h-</i> 'X is joined together')
<i>ta:'talakxtimí:</i> 'X and C get together'	(< <i>talakxtimí:</i> 'X gathers, X comes together')
<i>ta:'tamá:</i> 'X lies down with C'	(< <i>tamá:</i> 'X lies down')
<i>ta:'tape'hxtimí:</i> 'X and C are shoulder to shoulder'	(< <i>tape'hxtimí:</i> 'X lines up at the shoulder')
<i>ta:'yá:lh</i> 'X stands holding C'	(< <i>ya:lh</i> 'X stands')

- (32) *lakxtím kinta:'tamá:lh kinchichí'*
lakxtím kin-Ø-Ø-ta:'-tama:-lh kin-chichí'
 lined.up 1OBJ-SG.OBJ-3SG.SBJ-CMT.APPL-lie-PFV 1PO-dog
 'My dog lay down at my side.' (PS)

- (33) *ta:'tamá:lh i'xtakú'ka:' minkawa:yúj katanlha'háki:'*
Ø-Ø-Ø-ta:'-tama:-lh i'x-takú'ka:' min-kawa:yúj
 3OBJ-SG.OBJ-3SG.SBJ-CMT.APPL-lie-PFV 3PO-load 2PO-horse
ka-Ø-Ø-tanlha'háki:'
 OPT-3OBJ-SG.OBJ-slap.on.behind:2SG.SBJ:PFV
 'Your horse lay down with its load, get it up!' (PS)

In (32), there is no necessity that the added participant ('T') also be lying down, only that it be in close proximity to the Actor (the dog). In (33), the added participant is inanimate and so cannot have co-performed the action of lying down along with the horse. Additionally, there is a third sense of *ta:'tamá:*, seen in (34), where the verb does imply a sort of co-action by the new participant:

- (34) *nata:'tapá:ya' kimpuská:t, mat wani'ta:'kí:lh*
na-Ø-Ø-ta:'-tapa:-ya' *kin-puská:t mat*
 FUT-3OBJ-SG.OBJ-CMT.APPL-lie:2SBJ-IPFV:2SG.SBJ 1PO-woman QUOT
wan-ní-ta:'kí:lh
 say-BEN.APPL-get.up-PFV
 'You will go to bed with my wife! he said and took off.' (RM)

However, even here there is more to it than simply lying down with the Actor, so we cannot say in any of these cases that the comitative adds a Co-Actor. Note also that three of the forms in Table 13 include the reciprocal prefix, indicating the mutuality of the spatial relation being expressed.

Eleven comitative forms in the database add the expression of an Associate, someone who participates in a particular social relationship with the Actor (Table 14). Included in this category are a number of verbs of marriage and kinship, as well as verbs of sharing and economic transaction. Beyond these, there are a few uses of *ta:-* where the new participant is inanimate and is more of a supplement or ingredient (e.g., *ta:lhawá* 'X makes Y [*lhawá*] with ingredient C'), as well as a dozen or so more where the effect of *ta:-* is even more idiosyncratic.

Table 14: *ta:'*- Associate.

<i>ta:ma'haxtó'h</i> 'X is married to C'	(< <i>ma'haxtó'h</i> 'X is married')
<i>ta:la:la'hxta:palí</i> 'X exchanges Y with C'	(< <i>la'hxta:palí</i> 'X exchanges Y')
<i>ta:la:ka:xlá</i> 'X resolves problem Y with C'	(< <i>la:ka:xlá</i> 'X resolves problem Y')
<i>ta:pí'ks-</i> 'X breaks off a piece of Y to share with C'	(< <i>pí'ks-</i> 'X breaks off a piece of Y')
<i>ta:skí'n:nín</i> 'X asks for a girl in marriage for C'	(< <i>skí'n</i> 'X asks for Y' + <i>-nín</i> 'SUBST' + <i>-nín</i> 'ANTIP _{SUPPR} ') ²
<i>ta:skúj-</i> 'X works for C'	(< <i>skuj-</i> 'X works')
<i>ta:wá</i> 'X shares Y (food or drink) with C'	(< <i>wa</i> 'X eats or drinks Y')
<i>ta:wí:lh</i> 'X is married to C'	(< <i>wi:lh</i> 'X is seated')

3.4 *la'h-* 'ALLATIVE'

The allative applicative *la'h-* appears in 65 lexical entries, forming part of 35 independent derivations. Semantically more regular than the comitative, it adds a Goal (G) or some other entity towards which the action is directed.

The bulk of the *la'h*- forms in the database (27 entries, 14 independent stems) are based on motion verbs and add a Goal of Motion (Table 15). The Goal in these forms is almost invariably human, as in (35) and (36):

- (35) *la'hyújli' tza'má tzu'ma'já:t*
 Ø-Ø-Ø-la'h-yuj-li' tza'má tzu'ma'já:t
 3OBJ-SG.OBJ-3SG.SBJ-ALL.APPL-go.down-PFV that girl
 'He came down to the girl.' (MR)
- (36) *nakila'ha'nkán nakinchík nalhu:wa:wa'yankán*
na-kin-Ø-la'h-a'n-kan nak=kin-chík na-lhu:wá'-wa'yán-kan
 FUT-1OBJ-SG.OBJ-ALL.APPL-go-IDF LOC=1PO-house FUT-much-eat-IDF
 'They are going to come to me at my house and they will feast.' (PS)

The first example is from a story in which a man is working on the roof of a house and comes down to speak with a pretty girl. In the second example, the Goal participant is expressed by the first-person object prefix *kin-*. Note that the clause also contains a locative adverbial *nakinchík* 'at my house', which is the preferred way of expressing inanimate destinations with verbs of motion, as in (37):

- (37) *ka'ná:j nakXico*
i'k-a'n-ya:-uj nak=Xico
 1SG.SBJ-go-IPFV-1PL.SBJ LOC=Xicotepec
 'We_{EXCL} are going to Xicotepec.' (BC)

The verb in (37) is *a'n* 'X goes'. The destination is expressed as an adverbial, but does not constitute a syntactic or semantic argument of the verb either here or in (36) above.

Table 15: *la'h-* Goal of Motion.

<i>la'hchá:h</i> 'X arrives at G over there'	(< <i>cha:h</i> 'X arrives there')
<i>la'hchín</i> 'X arrives at G here'	(< <i>chín</i> 'X arrives here')
<i>la'hmín</i> 'X comes to G'	(< <i>min</i> 'X comes')
<i>la'htaa'hcho'hó:</i> 'X goes for a walk to G'	(< <i>taa'hcho'hó:</i> 'X goes for a walk')
<i>la'htakút-</i> 'X crosses the river to get G'	(< <i>takút-</i> 'X crosses the river')
<i>la'hxta'ya'hnán</i> 'X glides down to G'	(< <i>ta'ya'hnán</i> 'X glides')
<i>la'hyúj-</i> 'X comes down to G'	(< <i>yuj-</i> 'X descends')
<i>la'há'n</i> 'X goes to G'	(< <i>a'n</i> 'X goes')

The motion verbs *a'n* 'X goes' and *min* 'X comes' also give rise to 11 forms where the applied object expresses a Target towards which the Actor directs the action but which is not actually reached or affected by it. These verbs are all based on a combination of *a'n* or *min* with a part prefix, as seen in Table 16. As with the forms in Table 15, the applied objects found with these verbs are generally animate.

More commonly, the Terminal Point, being third person, is Ø and is understood from context, as in (40):

- (40) *na'kla'htama'hajú: nakincazuēla*
na-i'k-Ø-Ø-la'h-tama'haju: Ø nak=kin-cazuēla
 FUT-1SG.SBJ-3OBJ-SG.OBJ-ALL.APPL-immersed.hand 3 LOC=1PO-cooking.pot
 'I'm going to put my hand in the pot to reach it.' (RM)

In (40) there is an understood 'it' the speaker is reaching for; the *nak=* phrase defines a wider location into which the speaker is reaching, but does not express the Goal itself. The contrast is clearer if we compare this sentence to the same verbal base without the applicative:

- (41) *katama'haju: namibolsa*
ka-tama'haju: nak=min-bolsa
 OPT-immersed.hand:2SG.SBJ:PFV LOC=2PO-pocket
 'Put your hands in your pockets!' (PS)

The verb in (41), *tama'hajú:* 'X immerses X's hands' (< *ta-* 'inchoative' + *ma'ha-* 'hand' + *-ju:* 'be down in'), is intransitive and the *nak=* phrase simply defines the locus of the immersion rather than a Goal of motion.

Table 18: *la'h-* Terminal Point.

<i>la'htakilhpu:tá</i> 'X bends over to reach G'	(< <i>takilhpu:tá</i> 'X bends over')
<i>la'htalakapa'jtzú</i> 'X moves closer to G'	(< <i>talakapa'jtzú</i> 'X moves closer')
<i>la'htalakatzunají:</i> 'X gets closer to G'	(< <i>talakatzunají:</i> 'X gets closer')
<i>la'htama'hajú:</i> 'X reaches in for G with one's hand'	(< <i>tama'hajú:</i> 'X reaches into a container')
<i>la'htanú:</i> 'X is inside G'	(< <i>tanú:</i> 'X goes inside')
<i>la'htawaká'lh</i> 'X climbs up to G'	(< <i>tawaká'lh</i> 'X goes up high')

3.5 *pu:-* 'CONTAINING INSTRUMENT'

The containing instrumental applicative, *pu:-*, appears in 79 entries in the database forming part of 73 independent derivations. The applied object of *pu:-* (N) expresses a container, enclosing object, or container-like device that surrounds either the Actor or the Undergoer/Patient. Like the applied object of *li:-*, the object of *pu:-* is used as an Instrument/Mean of realizing the action expressed by the verb.

There are 37 lexical entries (35 independent derivations) where *pu:-* adds a Containing Instrument (Table 19). The necessity that the applied object be container-like imposes restrictions on the verb—for instance, *pu:chi'pá* 'X traps Y in N' can be used only

with container-like traps such as nets or baskets (but not snares), while *pu:cha'panán* 'X grinds in N' (< *cha'panán* 'X grinds') only applies to grinding in instruments such as mortars, molcajetes, and metates, and not to grinding, say, on the ground with a rock.

Table 19: *pu:-* Containing Instrument.

<i>pu:cha'panán</i> 'X grinds in N (e.g., mortar)'	(< <i>cha'pa</i> 'X grinds Y' + <i>-nan</i> 'ANTIP _{SUPPR} '))
<i>pu:chi'pá</i> 'X traps Y in N (e.g., net)'	(< <i>chi'pá</i> 'X traps Y')
<i>pu:kukta'lá</i> 'X hits Y with a stone thrown in N (e.g., sling)'	(< <i>kukta'lá</i> 'X hits Y with a stone')
<i>pu:la'hchulú:t-</i> 'X cools Y by pouring it out of N'	(< <i>la'hchulú:t-</i> 'X cools liquid Y by pouring it')
<i>pu:la'hs'á't-</i> 'X skims froth off boiling cane syrup with N'	(< <i>la'hs'á't-</i> 'X skims froth off boiling cane syrup')
<i>pu:li:mín</i> 'X brings Y inside N'	(< <i>li:mín</i> 'X brings Y')
<i>pu:lé:n</i> 'X takes Y inside N'	(< <i>le:n</i> 'X takes Y')
<i>pu:ma:wí:</i> 'X feeds Z to Y in N (e.g., bowl)'	(< <i>ma:wí:</i> 'X feeds Z to Y')
<i>pu:skuj-</i> 'X works in N (work clothes)'	(< <i>skuj-</i> 'X works')
<i>pu:wa'yán</i> 'X eats from N (dish)'	(< <i>wa'yán</i> 'X eats')

Because this type of instrument is generally third person and inanimate, and is rarely plural, there are very few sentences like (42) that show overt agreement with the applied object:

- (42) *ah'tú' tsa'ká:t i'ka:ta:'pu:la'hmakamílh chiwíx kistáunku' tza'má chi'xkú'*
ah'-tu' tsa'ká:t i'k-Ø-ka:-ta:'-pu:-la'h-makamin-lh
 CLF-two sling 1SG.SBJ-3OBJ-PL.OBJ-CMT.APPL-CINST.APPL-ALL.APPL-direct-PFV
chiwíx kin-stáunku' tza'má chi'xkú'
 stone 1PO-brother that man
 'I and my brother threw stones at that man with two slings.' (LB)

Examples like (43), which show agreement with some other object, are much more common:

- (43) *kintapu:lé:lh i'xkuxta:lhká'n*
kin-Ø-ta-pu:-le:n-lh i'x-kuxta:lh-ka'n
 1obj-SG.OBJ-3PL.SBJ-CINST.APPL-take-PFV 3PO-sack-PL.PO
 'They carried me in their sack.' (PS)

Here, the controller of agreement is the primary object, expressing what is carried, rather than the secondary applied object, the container.

Another semantic role (18 forms, 18 independent derivations) associated with *pu:-* is that of Conveyance (Table 20). In these forms, the applicative combines with a verb of motion to express a Vehicle (44), Conduit (45), or Path (46):

- (44) *pu:milh pu:lháuj*
 Ø-Ø-Ø-*pu:-min-lh* *pu:lháuj*
 3OBJ-SG.OBJ-3SG.SBJ-CINST.APPL-come-PFV vehicle
 ‘He came in a car.’ (RM)
- (45) *tubo pu:mimá:lh xka:n*
tubo Ø-Ø-Ø-*pu:-min-ma:lh* *xka:n*
 pipe 3OBJ-SG.OBJ-3SG.SBJ-CINST.APPL-come-PROG water
 ‘The water comes through pipes.’ (CF)
- (46) *xi:wán ja: pu:milh tej naka:’xa:wátna’ milh*
xi:wán ja: Ø-Ø-Ø-*pu:-min-lh* *tej nak=ka:’-xa:wát-na’*
 Juan NEG 3OBJ-SG.OBJ-3SG.SBJ-CINST.APPL-come-PFV path LOC=PLC-corn-PL
 Ø-*min-lh*
 3SG.SBJ-come-PFV
 ‘Juan didn’t come on the road, he came through the cornfield.’ (CF)

Note that all three of these examples are based on the same verb, which shows us that each of the three specific roles (Vehicle, Conduit, Path) played by the new participant in the event is a context-specific interpretation of a single, vaguer, semantic role (Containing Instrument).

Table 20: *pu:-* Conveyance.

<i>pu:án</i> ‘X rides in N’	(< <i>a’n</i> ‘X goes’)
<i>pu:mín</i> ‘X comes inside N’	(< <i>min</i> ‘X comes’)
<i>pu:paxyalhnán</i> ‘X goes for a ride on N’	(< <i>paxyalhnán</i> ‘X goes for a stroll’)
<i>pu:taa’hapú:</i> ‘X goes downhill in N’	(< <i>taa’hapú:</i> ‘X goes downhill’)
<i>pu:taa’kxtú</i> ‘X goes upstream in N (boat)’	(< <i>taa’kxtú</i> ‘X goes uphill’)
<i>pu:takút-</i> ‘X crosses river in N’	(< <i>takút-</i> ‘X crosses river’)
<i>pu:xki’wa’hnán</i> ‘X swims using N as a float’	(< <i>xki’wa’hnán</i> ‘X swims’)
<i>pu:yúj-</i> ‘X comes down using N (e.g., ladder, rope)’	(< <i>yuj-</i> ‘X descends’)

In several forms (18 lexical entries, 15 independent derivations), *pu:-* increases the valency of the base by adding a Container that is not an Instrument, but instead is simply an object within which the action of the verb is accomplished (Table 21). In some cases, like the instance of *pu:ma:ska:kí:* ‘X puts Y into N to dry it’ (< *ma:ska:kí:* ‘X dries Y’) in (47), the applied object might be construed as a Containing Instrument, but this is strictly a contextual interpretation of the general semantic role of Container:

- (47) *pu:ma:ska:ki:kán pi'n pu:skuyún*
 Ø-Ø-*pu:-ma:-ska:k-i:-kan* *pi'n pu:skuyún*
 3OBJ-SG.OBJ-CINST.APPL-CAUS-dry-CAUS-IDF chili smoking.rack
 'They dry the chilies on the smoking rack.' (CF)

In (47), N is a rack used specifically for smoking chiles and so can be understood as an Instrument for drying; however, the same verb can be used with other types of objects (tarps, bowls) which would simply be locations. Thus, *pu:ma:ska:ki:* is less selective than verbs like *pu:cha'panán* 'X grinds in N (e.g., mortar)' from Table 19 above, and the new semantic role specified by the applicative is simply a Container.

Table 21: *pu:-* Container.

<i>pu:cha'hanán</i> 'X washes nixtamal in N'	(< <i>cha'hanán</i> 'X washes nixtamal')
<i>pu:helhtawahá:</i> 'X studies in N (school)'	(< <i>helhtawahá:</i> 'X studies')
<i>pu:ma:ska:ki:</i> 'X puts Y into N to dry it'	(< <i>ma:ska:ki:</i> 'X dries Y')
<i>pu:mojó:</i> 'X puts Y inside N'	(< <i>mojó:</i> 'X puts Y in')
<i>pu:pa:tí:</i> 'X suffers inside of N'	(< <i>pa:tí:</i> 'X suffers')
<i>pu:pú'x-</i> 'X picks Y and puts it in N'	(< <i>pu'x-</i> 'X picks Y')
<i>pu:tastó'h-</i> 'X gets together inside of N'	(< <i>tastó'h-</i> 'X gathers')
<i>pu:tojó:</i> 'X gets inside of N'	(< <i>tojó:</i> 'X is immersed or contained')
<i>pu:waká'lh</i> 'X is hanging inside N'	(< <i>waká'lh</i> 'X is up high')
<i>pu:wilí:</i> 'X puts Y inside of N'	(< <i>wilí:</i> 'X places Y')

pu:- is unique among the UNT applicatives in that it has an obvious cognate in the part prefix *pu:-* 'vagina; container'. Like all part prefixes in Totonacan (Levy 1999), the part prefix *pu:-* acts as a limitative (Mel'čuk 1994), serving to delimit what Langacker (1991) refers to as the "active zone" of one of the event participants—that is, the subpart of that participant most affected by the action. We can see the typical use of part prefixes in (48):

- (48) *pu:masli'tzá' wa:má ha:'x*
pu:-mas-li'=tzá' wa:má ha:'x
 CTNR-rot-PFV=now this gourd
 'This gourd is rotten on the inside.' (CF)

In the verb *pu:mas-* 'X is rotten on the inside' (< *mas-* 'X rots'), *pu:-* merely delimits the active zone (the interior) of the entity that is rotting (the gourd), but does not add a new semantic role to the event. The verb with and without *pu:-* is monovalent.

Because of these differences in meaning and syntactic effect, the two *pu:-* prefixes have to be treated as separate morphemes. This predicts that the two can appear in the same verb form. Consider the examples in (49)–(51):

- (49) *nai'klhká: wa:má kí'wi'*
na-i'k-Ø-Ø-lhka: wa:má kí'wi'
 FUT-1SG.SBJ-3OBJ-SG.OBJ-measure this tree
 'I'm going to measure (the length of) this wood.' (RM)
- (50) *i'kpu:lhká:lh kinkú'xi'*
i'k-Ø-Ø-pu:-lhka:-lh kin-kú'xi'
 1SG.SBJ-3OBJ-SG.OBJ-CTNR-measure-PFV 1PO-corn
 'I weigh my corn.' (RM)
- (51) *na'kpu:pu:lhká: pu:pu:lhká:n i kinkú'xi'*
na-i'k-Ø-Ø-pu:-pu:-lhka: pu:pu:lhká:n i kin-kú'xi'
 FUT-1SG.SBJ-3OBJ-SG.OBJ-CINST.APPL-CTNR-measure scale JUNCT 1PO-corn
 'I'm going to weigh my corn in a scale.' (RM)

Example (49) shows the bivalent verb *lhka:* 'X measures Y'; in (50) we have *pu:lhka:* 'X weighs Y', which is also bivalent and bears the part prefix *pu:-* in recognition of the fact that weighing something usually entails placing it in a bag or container of some kind (in the time before mechanical scales).⁴ The verb in (51), *pu:pu:lhka:* 'X weighs Y in N', on the other hand, has both the partonym *pu:-* and the *pu:-* applicative. The addition of the applicative *pu:-* makes it trivalent, and only with this form can the instrument used to do the weighing, the scale, be expressed.

The relationship between the *pu:-* part prefix, the *pu:-* applicative, and the non-instrumental valency-increasing *pu:-* is not only an interesting example of grammaticalization, but is also significant for family-internal reconstruction. While *li:-* is the principal instrumental applicative in the Totonac branch of the family, *pu:-* is the more frequent instrumental in the Tepehua branch (Beck 2012). In one of the three Tepehua languages, Huehuetla, the general applicative is *pu:-* and the cognate of *li:-*, *ti:-*, is more limited (Smythe Kung 2007)—as it is in Tlachichilco Tepehua, which has both *pu:-* and *pa:-* ('belly') instrumentals in addition to *ti:-* (Watters 1987). The third Tepehua language, Pisaflores, uses both *pu:-* and *ti:-* as general instrumentals (J. Watters, p.c.), suggesting a complex history for instrumental applicatives in the family.

⁴ This use of the part prefix is not, strictly speaking, limitative in the sense of defining an active zone on the object being measured, so much as it defines a type of spatial domain in which the action takes place, also a common function of part prefixes.

4 Conclusion

Based on the questionnaire provided for this volume, UNT presents the following profile:

Morphology

- 1.1 The main AC is marked by affixation.
- 1.2 not relevant
- 1.3 There is virtually no allomorphy affecting any of the applicatives.
- 1.4 Applicativized verbs are inflectionally identical to basic verbs.

Syntax

- 2.1 The applied phrase is realized as a secondary object.
- 2.2 The syntactic status of the applied phrase's companion arguments does not change between the BC and the AC.
- 2.3 There are no restrictions on the stacking of applicatives or their combination with voices.
- 2.4 ACs do not form a special verb class.
- 2.5 Applied objects are potential controllers of agreement, subject to conditions based on person and discourse status.
- 2.6 Applied objects are accessible to relativization and are accessible to linearization operations used to express Information Structure.

Semantics

- 3.1 Each applicative assigns a specific semantic role or one of a set of semantically related roles to the applied phrase.
- 3.2 Each of the four applicatives is the only way the semantic role they are associated with can be expressed.
- 3.3 not relevant
- 3.4 not relevant
- 3.5 The role of applicatives is to create lexical items expressing events involving a certain set of participants, so the choice between the AC and the BC is meaning-driven rather than discourse-sensitive. Applied objects are accessible to linearization operations used to express Information Structure and topic continuity.

Lookalikes

not relevant

Abbreviations

ALL.APPL	allative applicative
ANTIP _{SUPPR}	suppressive antipassive
BEN.APPL	benefactive applicative
CINST.APPL	containing instrumental applicative
CMT.APPL	comitative applicative
CONJ	conjunction
CAUS	causative
CTNR	container
DCS	decausative
DEB	debitative
DSD	desiderative
EXCL	exclusive
FUT	future
HREL	human relative
IDF	indefinite voice
IPFV	imperfective
INST.APPL	instrumental applicative
INTJ	interjection
INTNS	intensive
LOC	locative
NEG	negative
NMZ	nominalizer
OBJ	object
OPT	optative
PFV	perfective
PL	plural
PO	possessive
PROG	progressive
PST	past
QUOT	quotative
RCP	reciprocal
RPT	repetitive
SBJ	subject
SG	singular
SUBST	substitutive
TRZ	transitivizer
-	affix boundary
=	clitic boundary

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Marisa Censabella

6 Applicatives in Toba/Qom (Guaykuruan)

Abstract: Toba or *Qom l'aqtaqa* (T/Q) is a polysynthetic Guaykuruan language spoken mainly in the Argentinean Chaco region. It lacks morphological case marking and adpositions; instead, the role of the unmarked NPs is either specified by the lexical meaning of the verb or encoded via applicativization. There are twelve applicative verbal suffixes: five with a locative meaning, four with a goal/directional one, and three that encode benefaction, reception, and accompaniment, respectively. Whether valency-increasing or valency-re-arranging, applicativization introduces applied arguments as core P arguments (as seen in number agreement and constituent order patterns, as well as in topicalization and its consequences for coordination and subordination pivots). When used with transitive roots/bases, applicatives do not add a third argument but change the meaning expressed by the verb, allowing a different semantic role from the one specified in the verbal root/base. T/Q is a beneficiary-prominent language: whenever the speaker wants to highlight the benefit that a non-subject participant gets through the verbal event, that participant will be encoded as a beneficiary. Serial verb constructions seem to be the origin of applicatives, and the grammaticalization processes undergone by the latter—in coexisting stages of evolution—show plausible routes for pragmatic morphology.

1 Introduction

1.1 The language

Toba or *Qom l'aqtaqa*¹ is a Guaykuruan language spoken mainly in the Argentinean Chaco region (Chaco, Formosa, and Salta provinces) and in some important southern cities, such as Rosario, Santa Fe and the surroundings of Buenos Aires. The latest population census estimates that Toba/Qom (T/Q) people in Argentina approaches 126,967 (INDEC 2012), whereas 2,057 live in Paraguay (DGEEC 2013).² In rural settings, T/Q is often the first language that children learn at home, while in large cities, a process of displacement in favor of Spanish is observed. This process involves different commu-

1 *Qom/qoml'ek/qomlashe* and *qom l'aqtaqa* are the endogenous ethnonyms ('people/person.M/person.F') and glottonym ('the language of the People') known in the ethnographic and linguistic literature as *Toba language* and *Toba people*, respectively.

2 Since national population censuses are carried out every 10 years in Argentina, the figures mentioned here are outdated, because the 2020 National Census was suspended due to the COVID-19 pandemic disease.

nicative competences within the indigenous language, according to biographical trajectories, even among speakers of the same age living in the same community (Censabella 2009a: 167).

The glottonyms *Toba*, *Qom*, or *Qom l'aqtaqa*³ are used in linguistic studies to refer to a set of related varieties that belong to the Guaykuruan linguistic family (together with Mocoví, Pilagá, Caduveo, and the extinct Abipón and Mbayá; Tovar and Larrucea Tovar 1984). The language is catalogued as tob (ISO 639–3) and toba1269 (Glottolog 4.5). T/Q presents the largest number of linguistic and sociolinguistic studies within the mentioned linguistic family.⁴ T/Q speakers—as well as linguists (Klein 1981)—identify four main dialects in Province of the Chaco in Argentina: *lañagashék*, *no?olgranaq*, *rapigem-lʔek*, and *takshek*, all mutually intelligible. In this chapter, clauses from the three first mentioned dialects are used.⁵

3 The phoneme inventory of T/Q is shown below. The bracketed graphemes are the ones used in this paper.

	labial	alveolar	pre-palatal	palatal	velar	uvular	glottal
plosives	p	t	tʃ <ch>		k	q	ʔ
voiceless frict.		s	ʃ <sh>				h
voiced frict.			ʒ		ɣ <g>	ʁ <g>	
laterals		l		ʎ <ll>			
semi-con.	w			j <y>			
tap		r <r>					
nasals	m	n		ɲ <ñ>			

	front	back
close	i	o
open	e	a

4 For T/Q reference grammars, Buckwalter (1980), Klein (1981), Censabella (2002), Messineo (2003), Carpio (2012), Cúneo (2013), González (2015), and Zurlo (2016a–b). For sociolinguistic aspects, see Bigot (2007); Censabella (2009a), Hecht (2010), and Medina (2017). There are few studies on grammatical features—Avellana (2012, 2013); Avellana and Dante (2013); Censabella (2015); Zurlo (2013, 2016a)—and discourse issues—Zurlo and Censabella (2014)—related to Spanish in contact with T/Q, and even fewer about the influence of Spanish on T/Q—González and Censabella (2009); González (2013a) (the list is not exhaustive)—. For comparative studies of Guaykuruan languages in some grammatical domains, see Carpio and Mendoza (2018) and Carpio (2018); for comparative studies of Guaykuruan and Mataguayan languages, see Censabella and Terraza (2009), Vidal (2010), Messineo, Carol and Klein (2016); and for comparative studies of Guaykuruan and Tupi-Guaraní languages, see Carpio, González, and Mendoza (2021).

5 Current T/Q linguistic varieties' names are related to a non-linguistic denomination system composed of traditional demonyms, cardinal points, and names of ecological regions. According to Braunstein and Miller (1999), T/Q dialectal varieties relate to local groups of extended families or bands, and to tribes (conceived as groups of bands); following Mendoza (1999), the bands were identified by other groups with a proper name. In the ethnographic literature written in Spanish, these demonyms are called *par-*

1.2 Brief typological sketch

T/Q is a polysynthetic language with non-rigid word order (mainly VS, AVO, and OVA when O is pronominal), head marking, a verb-noun opposition, and an alienable-inalienable possession distinction. T/Q lacks an adjectival class of words, and also lacks both morphological case marking and adpositions; instead, it has unflagged NPs whose role is specified either by the lexical meaning of the verb or encoded via applicativization. T/Q displays four types of nominal categorization: nominal classes or “gender”, nominal classifiers (i.e., derivational morphemes that indicate the shape of objects encoded as deverbal nouns), possessive classifiers, and demonstrative or deictic classifiers. The expression of number in nouns combines a category of morphological number (singular and plural) with one of collectives and another of distributives; dual number is marked syntactically.

The verb system is organized in an active-middle opposition for all persons (Table 1). The verbal lexicon is accordingly divided into three main groups:

- (i) *active tantum* verbs, which occur only with the active voice marker (e.g., *rke?e* ‘s/he eats’, *ro?oche* ‘s/he sleeps’, *hek* ‘s/he goes’);
- (ii) *media tantum* verbs, which occur only with the middle voice marker (e.g., *nachel* ‘s/he bathes’, *niyin* ‘s/he cries’), and

cialidades and *nacionalidades*—nationalities—by T/Q people. For a semasiological analysis of the most used demonyms see Censabella (2002, 2009); Gordillo (1992), de la Cruz (1995) and Mendoza (2002) list and locate the bands at the end of 19th century as they were mentioned in the historical records and contemporary T/Q oral narratives. *lañagashék* (‘sth./sb. related to *lañaga* [= dry land]’) designates an ecological region with that specific characteristic, not a particular region in the map. *No?olgranaq* refers to the band of the Roosters (cf. *olegra* ‘rooster’), usually located in the north-center of the Chaco province, and *rapigeml?ek* ‘the man from the region where the land touches the sky’ (cf. *pigem* ‘sky’) refers to the western region of the province where the land smoothly rises to the western mountains. Finally, *takshek* (‘sth./sb. related to *tageñi* [= east]’) refers to a huge region towards the east of the Chaco region, along the Paraguay and Paraná rivers. Migration to bigger cities in Chaco Province and settlement in suburban areas since the 1960’s, in different and constant waves, have weakened the differences within the varieties, although some older speakers still know the demonyms system of ancient neighbors and are able to identify the phonological and lexical differences between some varieties. Some syntactic differences between the varieties show different stages of grammaticalization processes and different contact drifts in the verbal alignment and number systems, causative constructions, and uses of pragmatic particles. No in-depth dialectological studies have been made; nevertheless, Censabella’s (2002) reference grammar—mainly focusing on the *rapigeml?ek* syntax—presents phonological differences between a small sample of *no?olgranaq* speakers born in Pampa del Indio (Chaco), *lañagashék* speakers born in Colonia Aborigen (Chaco), and *takshek* speakers living in Misiones Tacuaglé (Formosa). González (2015) specifically studies the phonology, morphology, and syntax of the *takshek* variety. Carpio (2012) studies the variety spoken by Western Tobas or *ñachilamole?k*, which is closer to Pilagá. Messineo (2014: 19, 22) provides maps with regions inhabited by Qom people in Argentina, as well as the areas covered by the four main dialects in Chaco Province.

- (iii) a large group of verb roots and bases that can take either marker (e.g., *iyó* 's/he washes sth./sb.' vs. *nyó* 's/he bathes'; *parenagan* 's/he jumps' vs. *nparenagan* 's/he jumps willingly'; *yawan* 's/he sees, knows sth.' vs. *nawan* 's/he watches sth.', *yapagagen* 'teaches sb.' vs. *napagagen* 's/he studies', *imen* 's/he sells sth.' vs. *n-men* 's/he buys sth.'; *iro* 's/he takes sth., herds [animals]' vs. *nro* 's/he brings sth., herds [animals] for him, he is the owner of the herd'.

The middle voice participates in the same syntactic processes as the active voice, that is, transitivity alternations or adjustments which increase syntactic valence as applicativization and causativization, as well as valency decrease adjustments such as impersonal passive, reflexive, and reciprocal constructions.⁶ Further, the active voice shows a split for the third person, used to distinguish actions, events, different kinds of processes, and states. With non-derived verbs, the third personal marker *i-* appears with canonical transitive verbs and indexes the A argument; the complete clause requires plain or pronominal A and P arguments,⁷ with or without applicatives. The personal markers *r-*, \emptyset -, *t-*, and *w-* indexes the S argument, and they can appear in monovalent intransitive clauses, but also with an intransitive verb plus an applicative. Thus, the active voice shows a split alignment system based on person hierarchy: nominative-accusative (A=S≠P) between speech act participants (1st and 2nd person singular and plural), and a tripartite system (A≠S≠P) with splits in the S argument with the 3rd person singular and plural. Furthermore, a small number of verbal roots show an active-inactive alignment system, not verified in all varieties, and mainly used for 1st person singular and plural.

⁶ In previous studies, personal indexes shown in Table 1 were interpreted as morphemes encoding two grammatical notions: a personal index plus the orientation of the event. The latter was interpreted as: towards outside vs. towards inside (Buckwalter 1980), non-ad-corporeal vs. ad-corporeal action (Klein 1981), and centrifugal vs. centripetal movement (Bigot 1994). Following Benveniste (1966[1950]) and Kemmer (1993), Censabella (1998, 2002) proposes an active-middle voice opposition in T/Q; the ad-corporeal or centripetal movement meanings are subsumed in more general semantic features allowed by the middle voice, in which the S/A arguments are semantically interpreted as affected, receiving a benefit, or emotionally engaged while performing the event encoded by the verb. Zurlo (2016a), following Klaiman (1991), Kemmer (1993) and Creissels (2006, 2007), proposes that T/Q shows a "basic voice" system (viz., having active and middle voices) characterized by the following: (i) the verbal lexicon is organized into three verb classes (invariant active, invariant middle, and alternate); (ii) within the alternate verb class, which has the highest number of items, the middle markers are related to intransitive meanings, but not exclusively, because T/Q uses a significant number of alternate transitive verbal roots and bases and full P arguments with middle voice markers; (iii) the middle markers also encode different classes of atelic, non-punctual, irrealis or future meanings; and (iv) middle markers encode specific meanings that vary from one language to another but are similar in considering the logical subject as the principal locus of the denoted event.

⁷ S and A personal index prefixes (Table 1 and Figure 1) are obligatory in well-constructed verbal syntagms. Plain (lexical or full pronominal) S or A are not obligatory; they are used with pragmatic functions.

Table 1: Active and middle voice personal markers.

	Active voice	Middle voice
1SG	<i>s-</i>	<i>ñ-</i>
2SG	<i>aw-</i>	<i>an-</i>
3SG	<i>i-; r-; Ø-; t-; w-</i>	<i>n-</i>
1PL	<i>s...q</i>	<i>ñ...q</i>
2PL	<i>qaw...i</i>	<i>qan...i</i>
3PL	<i>i...ʔ; r...ʔ; -...ʔ; t...ʔ; w...ʔ</i>	<i>n...ʔ</i>

T/Q does not have tense; rather, it shows an aspectual system consisting of an obligatory perfective-imperfective opposition for all verbs, with other aspectual markers distributed in different semantic fields. There is verbal number, and the language does not have converbs. T/Q also possesses a rich locative- and directional-marking system with different functional slots in the verb complex. In these two paradigms, morphemes of one set operate as applicatives that increase or re-arrange transitivity, while morphemes of the other set have semantic functions different from valency and voice change. Both paradigms can co-occur in the verbal syntagm (cf. § 2). Valency changes are expressed by derivational and syntactic mechanisms, the former in causative and antipassive constructions and the latter in applicative and non-promotional passive constructions.⁸

The gray columns in Figure 1 show the minimal obligatory templatic slots that a well-formed verb form must contain: a portmanteau morpheme encoding the S/A personal index and the category of voice (cf. Table 1), the verbal root, a marker specifying person and number of the S/A, and an aspectual marker (unmarked perfective, imperfective progressive *-tak*, and imperfective continuous *-ta*).

IMPRS	Voice + S/A person index	Derivational prefixes	Verbal root	CAUS/ANTIP/ FACT derivational morphemes	S/A index (plural only)	Aspect	RECP/REFL	Verbal number	Locative / directional	Applicative	P number
Verbal prefixes		Lexical base			Verbal suffixes						

Figure 1: Verbal slots in T/Q.

To better understand the functions of applicatives and some lexicalization processes, it is convenient to distinguish the lexical from the syntactic areas in T/Q verbs. The second segment of 1st- and 2nd-plural discontinuous indexes clearly separate the lexical base

⁸ This typological sketch and the rest of the chapter is based on Censabella (2002, 2006a, 2006b, 2007, 2008, 2010, 2018), Carpio (2007, 2012), Carpio and Censabella (2010), González (2010a, 2010b, 2013b, 2016a, 2016b), Zurlo (2011, 2016b, 2019), and Zurlo and Censabella (2013).

from the verbal suffixes; this boundary does not exist for the 1st-, 2nd- or 3rd-singular indexes. The lexical base area contains, apart from the verbal root, unfrequently a derivational prefix, and usually derivational morphemes that increase transitivity (viz., different types of causatives) or reduce it (e.g., the antipassive). One of these derivational morphemes, *-agan*, is a sort of transitivity operator, which increases or reduces the number of core arguments that the base lexical root specifies. The causative derivational morphemes used in this slot encode different types of causatives with instrumental, intentional direct and intentional indirect causation, and a non-intentional or non-human direct causation; these morphemes can co-occur.⁹ Examples (1)–(3) show the boundaries between derivational and syntactic areas that 1st- and 2nd-plural discontinuous morphemes distinguish inside the verb form.

- (1) a. *i-nan-tak* *na* *l-ʔaganagat*¹⁰
 3TR-roll.up-PROG DEM 3POSS-rope
 ‘S/he is rolling up her/his rope.’
 b. *se-nan-aq-tak* *na* *qar-ʔaganagat*
 1PL-roll.up-1PL-PROG DEM 1PL.POSS-rope
 ‘We are rolling up our rope.’
- (2) a. *se-men-aq-tak* *a-so* *npaqta-pi*
 1PL-exchange-1PL-PROG F-DEM basket-COLL
 ‘We are selling baskets.’
 b. *se-men-agan-aq-tak* *qoʔollaga*
 1PL-exchange-ANTIP-1PL-PROG long.time.ago
 ‘We were selling in those days (we used to sell for a living).’

⁹ Examples (i) and (ii) below show two and three derivational morphemes in the verb form, respectively. A double and triple gloss line is added to better understand the derivational process.

- (i) *se-kag-aqt-agan-aq-tak*
 1PL-[be.broken-INSTR]-ANTIP-1PL-PROG
 1PL-break-ANTIP-1PL-PROG
 ‘We are breaking (INTR).’
- (ii) *se-kag-aqt-agan-agan-aq-tak* *a-so* *ʔalo*
 1PL-[be.broken-INSTR]-ANTIP]-CAUS-1PL-PROG F-DEM woman
 1PL-[break-ANTIP]-CAUS-1PL-PROG
 ‘We are making/ordering (TR) that woman to break (INTR).’

¹⁰ The examples presented in this chapter were mainly obtained by elicitation techniques and from narrative texts, collected and translated by the author, except where indicated otherwise. For expository reasons, some sentences have been simplified, testing their acceptability with two T/Q consultants by elicitation techniques.

- (3) *qoʔomi s-alekten-agan-aga-ʔa so towe*
 PRO.1PL 1PL-mix-ANTIP-1PL-APPL:ALL DEM salt
 ‘We mix things with salt.’

2 Applicative morphology

T/Q distinguishes two paradigms of verbal morphemes; one encodes a) LOCATIVE OR DIRECTIONAL NOTIONS and the other encodes b) LOCATIVE, DIRECTIONAL AND OTHER FUNCTIONAL NOTIONS, as shown in Tables 2 and 3 and discussed in 2.1 and 2.2, respectively. The latter behave as applicatives, increasing valency or re-arranging transitivity, while the former modify the verbal semantics without an applicative function. Morphemes from both paradigms can co-occur in the verbal syntagm; the functional slots occupied by each one are represented in Figure 1 above.

2.1 Locative-directional non-applicative verbal suffixes

Table 2: Locative-directional non-applicative morphemes in T/Q.

<i>-ñi</i>	‘down(wards)’
<i>-shegem</i>	‘up(wards)’
<i>-som</i>	‘to the water’
<i>-wo</i>	‘in(side)’
<i>-wek</i>	‘out(side), to an open space’

With movement verbs, these morphemes indicate the direction of movement (4b, c, d).

- (4) a. *se-parenagan* b. *se-parenagaa-ñi*
 1-jump 1-jump-L/D:down
 ‘I jump.’ ‘I jump down.’
 c. *se-parenagaa-shegem* d. *se-parenagaa-som*
 1-jump-L/D:up 1-jump-L/D:to.water
 ‘I jump up.’ ‘I jump into the water.’

With stative constructions, these morphemes indicate location, as seen in (5)–(6).

- (5) *we-ta-wo* *ʒe* *nogotole-k*
 3INTR-go¹¹-L/D:in DEM child-M
 ‘The boy is inside.’ (inside his mother’s belly)

- (6) *we-ta-wek* *ra* *shiyagawa*
 3INTR-go-L/D:out DEM person
 ‘This person is naked.’

With intransitive or transitive verbal roots or bases, L/D morphemes do not increase valency and are therefore not applicatives, at least in the studied varieties of T/Q language.¹² In (7), the verb root ‘to push’ is transitive and the L/D marker neither demands the incorporation of a new argument nor re-arranges the function of the previous arguments; instead, the L/D marker—via its own semantics or with the co-occurrence of other morphological categories—modifies the meaning of the VP, as is clearly shown in Example (8b), or in Example (9a) when contrasted with (9c). Notice that the process of lexicalization between the verb root and the L/D marker is still weak, because the S/A 1PL index is located between the verb root and the L/D marker, as seen in examples (9b) and (9d).¹³ Most L/D morphemes are grammaticalized nouns, and some probable clines could be the following: *l-awo* ‘his/her family’ > *-wo* ‘into’; *pigem* ‘sky’ > *-shegem* ‘upwards’; *ñi* is a deictic demonstrative meaning ‘sitting, lean on’¹⁴ and the likely origin of *-ñi* ‘down’.

- (7) a. *ʔam* *y-amaq*
 PRO.2 3TR-push
 ‘S/he pushes you.’
 b. *ʔam* *y-amag-awo*
 PRO.2 3TR-push-L/D:in
 ‘S/he pushes you inside (the house, a place).’
 c. *ʔam* *y-amag-awek*
 PRO.2 3TR-push-L/D:out
 ‘S/he pushes you outside (the house, a place).’

¹¹ In Examples (5) and (6), stativity arises from the combination of the 3rd-person index *w-* and the movement verb *-ta* ‘to go’ (cf. the 3rd-person index split in Table 1).

¹² Calqued clauses from Spanish in elicitation sessions could give the impression of L/D argument incorporation, but this behavior is not corroborated in narrative or conversational T/Q texts.

¹³ Some fully lexicalized L/D markers are found in nouns or attributive constructions: *ʒoʔogoñi* ‘dawn’, *naloñi* ‘frost’, *rapaqñi* ‘s/he has a fever’ / ‘it is hot’.

¹⁴ This demonstrative is used prototypically with animals in stand-up position (leaned on the four legs), but also with objects which lay on the ground, such as houses or cooking pots with supports.

Table 3: Applicative morphemes in T/Q.

SUBTYPE	BASIC SEMANTIC ROLE	OTHER SEMANTIC ROLES	APPL		MEANING	P.PL3 ¹⁵
			MORP HEME	ALLO MORP HS		
LOCATIVE (STATIVE)	location	animate goal /others	-lek	-leg -lge -ek	‘over’	-te
		animate goal/ beneficiary	-ʔot	-ot	‘under’	-oʔ
		animate goal	-gi		‘against / (on the) side’	-lo
		—	-igi		‘inside’	-lo
DIRECTIONAL	inanimate goal/source	—	-ta		‘to the other side’	-lo
		animate moving goal	-ge		‘moving away’	-lo
		human goal /source	-get		‘approaching’	-oʔ
		animate goal	-sop		‘around’	-oʔ
		animate goal /others	-ʔa	-a -ya	‘to’	-lo
BENEFACTIVE/ MALEFACTIVE	beneficiary /maleficiary	involuntary causer	-em	-tem -am -om	‘for’	-a
TRANSFER	recipient		-i		‘to’	-lo
COMITATIVE	co-agent		-eʔ		‘with’	-oʔ

Unlike the examples in the previous sub-section, where the addition of L/D morphemes to a base clause (BC) does not require an obligatory P argument, the main syntactic function of applicativization is shown in example (11b), where a locative argument is required in the applicative clause (AC), and in (11c), which is ungrammatical.

- (11) a. *ramaze* Ø-*kewo-tak*
PRO.3 3INTR-walk-PROG
‘He is walking.’ (BC)
- b. *ramaze* Ø-*kewo-tag-elek* *ra* *noʔonaga*
PRO.3 3INTR-walk-PROG-APPL:over DEM field
‘He is walking over the field.’ (AC)
- c. **ramaze* *kewotagelek*

¹⁵ When the applied P is plural, number agreement is marked after the applicative, as shown in (45c).

The twelve applicative markers stand in complementary distribution in all studied T/Q varieties: five with a locative meaning, four with a goal/directional meaning, and three that encode benefaction, reception, and accompaniment, respectively. All applicatives co-occur with active and middle personal indexes, but the following sub-sections show all 3rd-person indexes in active and middle voice only for the locative applicative *-lek*, due to space limitations. Other alternations will be presented in Section 4.

2.2.1 Locative applicative *-lek* ('over')

- (12) a. *we-ta-lek* *ñi* *ñigellaq*
 3INTR-go-APPL:over DEM roof
 'S/he is over the roof.'
- b. *t-alek* *a-ñi* *qoma?*
 3INTR-go.APPL:over F-DEM mountain
 'S/he climbs the mountain.'
- c. *somaʒe* *Ø-pe-lek* *a-na* *ʔalwa*
 PRO.3 3INTR-step-APPL:over F-DEM land
 'He steps over the land.'
- d. *r-an-aga-lge-te* *na-wa* *noʔonaga-ʒe*
 3INTR-give-ANTIP-APPL:over-P.PL DEM-DL field-PL
 'S/he plants the fields.' (Buckwalter 1980: 19)
- (13) a. *a-so* *Nsogoj* *ʔam* *y-amaq*
 F-DEM cannibal[F] PRO.2 3TR-throw/push
 'The cannibal woman pushes you.' (BC)
- b. *a-so* *Nsogoj* *ʔam* *y-amag-alek* *ʒe* *le?*
 F-DEM cannibal[F] PRO.2 3TR-throw/push-APPL:over DEM ember
 'The cannibal woman pushes you over the ember.' (AC)
- (14) *no-wir-añi* *ñi* *Dios*,
 3MID-arrive-L/D:down DEM God
n-ahañi-ta-lek *ra* *Resistencia*
 3MID-fell.down-CONT-APPL:over DEM R.
 'God comes down, he is tilting over Resistencia (city).'

2.2.2 Locative applicative *-ʔot* ('under')

- (15) a. *ñi* *qagesaq* *we-to-ʔot* *a-ra* *ipaq*
 DEM ant 3INTR-go-APPL:under F-DEM tree
 'The ant is under the tree.'

- b. *r-ewagay-ot* *se?eso* *qoma?*
 3INTR-shelter-APPL:under DEM.PRON stone/mountain
 ‘S/he shelters under that stone.’

2.2.3 Locative applicative *-gi* (‘[in]side / against / lean on’)

- (16) *Ferocho* *Ø-keta-gi* *na* *awyaq*
 F. 3INTR-walk-APPL:side DEM forest
 ‘Ferocho walks in/by the forest.’

The examples in (17) show that the applicatives are frequently used to adapt the semantic specification of the verbal base to allow for the application of a different semantic role of the P argument. In (17a), the verbal base *-wagan* selects a human or animate entity to fulfill the P argument while in (17b) the applicative allows a prototypical inanimate patient to fulfill that function.

- (17) a. *i-wag-an* *so* *l-qaya*
 3TR-hand/fist-VBLZ DEM 3POSS-brother
 ‘S/he hits his brother.’ (BC)
- b. *i-wag-an-gi* *a-na* *lacampana*
 3TR-hand/fist-VBLZ-APPL:side F-DEM bell
 ‘S/he hits (on) the bell.’ (AC)
- (18) *y-aa-ta-gi* *ra* *l-qayk* *a-ka* *l-asoge?*
 3TR-hold-CONT-APPL:side DEM 3POSS-head F-DEM 3POSS-bag
 ‘She holds on her head the bag.’

2.2.4 Locative applicative *-igi* (‘inside’)

This applicative is found with locative meaning, without a secondary animate-goal meaning.

- (19) *Ø-chek-tak* *ne?ena* *w-aygi* *na* *awyaq*
 3INTR-eat-PROG P.PRON 3INTR-go.APPL:inside DEM forest
 ‘S/he is eating this which it is inside the forest.’
- (20) a. *Juan* *ro-ʔon-aga-tak*
 J. 3INTR-sing-ANTIP-PROG
 ‘Juan is singing.’ (BC)

- b. *Juan ro-ʔon-aga-a-ta-ygi* *ñi l-ma?*
 J. 3INTR-sing-ANTIP-CONT-APPL:inside DEM 3POSS-home
 ‘Juan is singing inside his home.’ (AC)

2.2.5 Goal/directional applicative *-ta* (‘to the other side’)

Probably due to different paths of grammaticalization of the verbal root *-ta* ‘to go’ in serial verb constructions (§ 5), this locative applicative, or trajectory applicative—used to express the notion of crossing a creek, river, or lagoon—shows a relatively low type frequency but an extremely low token frequency: it is the less frequent of all applicatives in the analyzed corpora. The fact that it frequently co-occurs with the expression *ra leʔego qaʔim/lapel/tala?* ‘this side (of) the *estero* / lagoon / big river’ (21b–c) possibly indicates the development of a process of desemantization, at least in the varieties studied so far.

- (21) a. *saga-a-ta* *na qaʔim*
 1PL.go.1PL-APPL:other.side DEM shallow.lagoon
 ‘We go to the other side of the *estero*.’
 b. *ño-wir-aga-ta* *na leʔego na tala*
 1PL.MID-arrive-1PL-APPL:other.side DEM side DEM Paraná.river
 ‘We arrive to this side of the Paraná river.’
 (Buckwalter 1980: 80)
 c. *y-ashike-ta* *ra leʔego na ʔetagat*
 3TR-go.straight-APPL:other.side DEM side DEM water
 ‘S/he goes straight across the water.’
 (Buckwalter 1980: 192)

2.2.6 Goal/directional applicative *-ge* (‘moving away’)

This applicative—as well as its opposite *-get* (§ 2.2.7)—shows traces of serial verb construction and grammaticalization processes in progress. In (22a), the applied P simply refers to the locative goal; in (22b), with two animate arguments, the directional meaning must be interpreted as A going behind P, which is moving away from A. In (22c), P is the source of the event coded by the predicate.

- (22) a. *se-wir-age* *ra Salta*
 1-arrive-APPL:away DEM S.
 ‘I (will) arrive to Salta [Province].’ (S is far away from Salta)

- b. *ayim sa-ta-te-ge a-na potay*
 PRO.1 1-go-CONT-APPL:away F-DEM antbear
 'I'm going towards (chasing) the antbear (which is running away from me).'
- c. *na laʔat i-chigoʔo-ge na tohlek ʔalwa*
 DEM wind 3TR-come-APPL:away DEM desert
 'The wind comes from the desert.'

2.2.7 Goal/directional applicative -get ('approaching')

Apart from the directional use with the 'approaching' meaning (23b), this applicative indicates the source with 'come'-type verbs, as in (24).

- (23) a. *r-alako ñi pioq*
 3INTR-bark DEM dog
 'The dog barks.' (BC)
- b. *r-alakoi-get na shiyagawa-pi so pioq*
 3INTR-bark-APPL:approach DEM person-COLL DEM dog
 'It barks—while approaching—to the people, that dog.' (AC)
- (24) *Rosa Merino i-chigoʔo-get na rokshe*
 R. M. 3TR-come-APPL:approach DEM non.indigenous.person
 'Rosa Merino comes from the *criollos*.' (Her family is not indigenous.)

2.2.8 Goal/directional applicative -sop ('around')

This applicative introduces an argument that represents an object, a person, or a geographical space around which an animate S/A argument circles. Example (25b) shows the lexical productivity of this type of applicative.

- (25) a. *we-tai-sop ñi noyik*
 3INTR-go-APPL:around DEM house
 'It [an animal] is/lives around the house.'
- b. *ramaze ya-koo-sop so nogotolek*
 PRO.3 3INTR-grab-APPL:around DEM boy
 'He embraces the boy.'
- c. *[so qañagaʔe-ʔ] . . . Ø-qolee-tege-sop-o?*
 DEM scavenger.bird-PL 3INTR-spin-PROG-APPL:around-P.PL
kenaga so-m Nsogoy-k
 ADV DEM-TOP cannibal-M
 'He always circles around the two scavenger birds, that cannibal man. . .'

2.2.9 Allative applicative -ʔa

This applicative can introduce an argument with the role of a goal, either inanimate (26b) or animate/human (27b):

- (26) a. *so Pedro i-ro-wo so l-yalek*
 DEM P. 3TR-take-L/D:in DEM 3POSS-son
 ‘Pedro takes inside (the house/a place) his son.’ (BC)
- b. *i-ro-w-ʔa ñi loh-pital so l-yalek*
 3TR-take-L/D:in-APPL:ALL DEM hospital DEM 3POSS-son
 ‘He takes his son to the hospital.’ (AC)
- (27) a. *so jale i-wir-ewo ñi noyik*
 DEM man 3TR-arrive-L/D:in DEM house
 ‘The man arrives inside the house.’ (BC)
- b. *so jale i-wir-ew-ʔa a-ra ʔalo*
 DEM man 3TR-arrive-L/D:in-APPL:ALL F-DEM woman
 ‘The man arrives to(wards) the woman.’ (AC) (Sp. ‘llega a/hasta la mujer’)

In some cases, there is no clear distinction in semantic roles that could explain the use of the applicative marker, and the relevant factor seems to be rather the inherent nature of the participant fulfilling a given role, but additional data would be necessary before discussing a possible generalization. In (28), for instance, the verb *-wen* ‘to need’ takes, when applicativized, an object that is apparently to be used as an instrument or raw material in an implicit future event:

- (28) a. *i-wen ka l-maʔ*
 3TR-need DEM 3POSS-home
 ‘S/he needs a place to live’ (BC)
- b. *i-wen-ʔa a-ka lagaray l-awe*
 3TR-need-APPL:ALL F-DEM palm tree 3POSS-leaf
 ‘S/he needs a palm leaf (to make baskets).’ (AC)

By a related token, the verb *-pot* means ‘to touch or to step on (with the sole of the foot or the palm of the hand and the nails)’; its expected P arguments are ‘soil’, ‘land’, ‘water’ and ‘sand’, as in (29a). Nevertheless, non-expected Ps, such as someone’s neck in (29b), require the use of the applicative:¹⁶

¹⁶ Although a possessive construction is involved in (29b), it would not be correct to consider it an example of external possession.

- (29) a. *i-pot a-na ʔalwa*
 3TR-touch F-DEM land/soil
 ‘S/he touches the soil.’ (BC)
- b. *i-pot-ew-ʔa a-so Ana l-qosot*
 3TR-touch-L/D:in-APPL:ALL F-DEM A. 3POSS-neck
 ‘S/he touches Ana’s neck.’ (AC)

2.2.10 Benefactive/malefactive applicative -ʔem

The beneficiary (30) or maleficiary (31) interpretation of the P introduced by this applicative results from the semantics of the verbal root/base. This marker can also introduce an involuntary cause, as in (32b) and (33b).

- (30) a. *ramaʒe do-ʔon-agan*
 PRO.3 3INTR-sing¹⁷-ANTIP
 ‘He sings.’ (BC)
- b. *ayim do-ʔon-agan-em*
 PRO.1 3INTR-sing-ANTIP-APPL:BEN
 ‘He sings for me.’ (AC)
- (31) *ayim i-lla-peg-em ra y-aqtak*
 PRO.1 3TR-forbid-REP-APPL:BEN DEM 1POSS-word
 ‘S/he always forbids me to talk / my speech.’
- (32) a. *ramaʒe Ø-keʔemaq*
 PRO.3 3INTR-be.wounded
 ‘He is wounded.’ (BC)
- b. *aw-keʔemag-am so l-kat*
 2-be.wounded-APPL:BEN DEM 3POSS-word
 ‘You are wounded by that piece of iron.’ (AC)
- (33) a. *a-ramaʒe i-lew¹⁸*
 F-PRO.3 3TR-die
 ‘She dies.’ (BC)

17 In T/Q, the verbal root -ʔon ‘to sing’ is transitive.

18 In T/Q, the verb ‘die’ (INTR) co-occurs with the 3rd-person index *i-* used with transitive verbs, because this index encodes telicity. Thus, it is also used with active accomplishments, which are usually lexicalized as transitive verbs (Zurlo and Censabella 2013).

- b. *a-ka ?alo i-lem ra l-ko?ok*
 F-DEM woman 3TR-die.APPL:BEN DEM 3POSS-giving.birth
 ‘That woman dies because of giving birth.’

2.2.11 Recipient applicative -ʔi

Since the recipient applicative -ʔi mainly occurs with the transitive verb -*an* ‘to give’, it has an extremely low type frequency but a high token frequency. It does not necessarily yield a ditransitive clause (cf. § 3).

- (34) a. *so yagaykyolek y-an so l-apo?*
 DEM old.man 3TR-give DEM 3POSS-poncho
 ‘The old man gives his poncho away.’ (BC)
- b. *so yagaykyolek y-añ-i so l-qaya*
 DEM old.man 3TR-give-APPL:REC DEM 3POSS-brother
so l-apo?
 DEM 3POSS-poncho
 ‘The old man gives his brother the poncho.’ (AC)

2.2.12 Comitative applicative -e?

The comitative applicative -*e?* could be the result of the further grammaticalization of the goal/directional applicative -*get* (§ 2.2.7). In (36b), with a plural P, the comitative applicative morpheme recovers the original -*t-* phoneme of its putative source. Other examples are presented in Section 5.2.

- (35) a. *n-yom-e? ñi l-qaya*
 3MID-drink-APPL:COM DEM 3POSS-brother
 ‘S/he drinks with his brother.’ (González 2011: 147)
- b. *so yale r-apet-tag-e? ra l-aworewa*
 DEM man 3INTR-argue-PROG-APPL:COM DEM 3POSS-neighbor
 ‘The man is arguing with his neighbor.’
- (36) a. *somaʒe i-kelela-peg-e? na l-qayañik-pi*
 PRO.3 3TR-help-REP-APPL:COM DEM 3POSS-brother-COLL
 ‘He always helps with his brothers.’
- b. *somaʒe i-kelela-peg-et-o? na-wa ?alo-l*
 PRO.3 3TR-help-REP-APPL:COM-P.PL DEM-DL woman-PL
 ‘He always helps with the two women.’

3 Applicative syntax

Zúñiga and Creissels (this volume) define the applicative construction as follows:

- i) The predicates in both constructions are built upon the same root, but the one in the AC bears additional overt marking that distinguishes it from the one in the BC.
- ii) The participant encoded as S or A in the BC appears as S or A in the AC.
- iii) The AC includes a noun phrase in a role other than S or A, the applied phrase (AppP), which refers to a participant that either requires a non-core coding different from its coding in the AC or cannot be expressed at all in the BC.

All T/Q examples presented above show properties i) and ii): the AC shares the same root with the BC and involves a morphological expression in the verb. As regards property iii), T/Q applied phrases cannot be expressed at all in the BC; when applied, the introduced argument shows all the properties of a transitive object. T/Q applicatives are obligatory: the only way of expressing a new non-agentive participant in the clause is by means of applicativization; we do not find the category of oblique argument in the BC that could alternate with a promoted applied argument in the AC.

Applicatives in T/Q co-occur with either active or middle voice without restrictions, and they can also co-occur freely within each semantic verb class, whose classification is encoded by the 3SG and 3PL split active personal indexes. Each verbal root contains a specification in terms of number of obligatory arguments; thus, in T/Q there is no P-lability or ambitransitivity: verbal roots/bases are either intransitive or transitive. Any transitivity clause alternation must resort to syntactic or derivational procedures. Different types of causatives (instrumental, direct intentional causative, direct unintentional causative and factitive) and the antipassive rely on derivational procedures to create new verbal bases that increase or decrease transitivity, respectively. Syntactic procedures such as non-promotional passives and applicatives, on the other hand, respectively decrease and increase/re-arrange transitivity.

To denote states with locative and directional information, T/Q has applicative deponents or *applicativa tantum*. For instance, the highly grammaticalized root *-ta* ‘go’ can only appear with an applicative, showing some degree of lexicalization and regressive vowel assimilation, as in (37).

- (37) a. *t-aja* *na* *menaganagaki*
 3INTR-go.APPL:ALL DEM market
 ‘S/he goes to the market.’
- b. *t-alek* *a-na* *qoma?*
 3INTR-go.APPL:over F-DEM stone/mountain
 ‘S/he climbs the mountain.’
- c. *we-to-?ot* *a-ra* *ipaq*
 3INTR-go-APPL:under F-DEM tree
 ‘S/he is under the tree.’

T/Q does not have double applicatives, and each VP only has one applicative at a time, as seen in all examples above. Only lexicalized applicatives in the verbal base could co-occur with a syntactic applicative, as in (38d), but here the lexicalized unit no longer functions as an applicative; rather, it is fully integrated into the verb base, to the left of the second segment of the 1PL index. Nevertheless, the existence of (38b) shows that grammaticalization of the allative is still in progress with this verbal predicate.

- (38) a. *ramaʒe r-taqa*
 PRO.3 3INTR-talk
 ‘He talks.’ (BC)
- b. *ramaʒe r-taga-ya so l-awo*
 PRO.3 3INTR-talk-APPL:ALL DEM 3POSS-family
 ‘He talks about his family.’ (AC)
- c. *qoʔomi se-tagaya-qa-pek*
 PRO.1PL 1PL-talk.about-1PL-REP
 ‘We always talk about sth./sb.’ (BC)
- d. *ramaʒe se-tagaya-qa-peg-eʔ*
 PRO.3 1PL-talk.about-1PL-REP-APPL:COM
 ‘We always talk about sth./sb. with him.’ (AC)

T/Q does not show ditransitive verbal roots/bases but has ditransitive constructions based on coordinated clauses. Ditransitive constructions are allowed only with the verb *-an* ‘give’ plus the recipient applicative *-i*, as shown in (34b) above. Nevertheless, these ditransitive clauses could be the result of the elicitation work and mostly a replica of ditransitive constructions in Spanish. Narrative texts in T/Q, however, are frequently expressed as in (39a–b), where the same verb root/base appears twice: first in a BC and then in an AC, both clauses being coordinated and sharing—by anaphoric persistence—the non-applied argument, instead of constructing one clause with three arguments. In these examples, the speakers’ strategy is to decompose the event into two sub-events, each one associated with a two-argument clause. Thus, with transitive verbs, T/Q applicatives do not increase valency but redirects P-hood.

- (39) a. *i-ro so l-yalek, i-ra-ʔa ñi Resistencia*
 3TR-herd DEM 3POSS-son 3TR-herd-APPL:ALL DEM R.
 ‘S/he takes his/her son, s/he takes [him] to Resistencia city.’
- b. *y-asaq a-so pelota, y-asag-a ñi qar-qaya*
 3TR-throw F-DEM ball 3TR-throw-APPL:ALL DEM 1PL.POSS-brother
 ‘S/he throws the ball, s/he throws [it] to our brother.’

This strategy, based on the paratactic juxtaposition of clauses with reference tracking and tight restrictions on the nominal arguments associated with each verb, could be explained by the inexistence of inherently ditransitive verbs and oblique arguments

(as Mithun 2004 suggests for some Native American languages). Narrative texts also show examples like (40a–b), where an argument is anaphorically shared by the two coordinated clauses; in these examples, the verb root is first detransitivized by the anti-passive, *-shin-agan* in (40a) and *-ʔaqt-agan* in (40b), and the 3rd-person index is *r-*, for intransitive active verbs. Then, the applicative derives a verb with a non-agentive argument semantically different from the originally P argument specified in the lexical root.

- (40) a. *r-shin-agan-a* *a-so* *lawogo*, *y-añi* *a-so* *María*
 3TR-get-ANTIP-APPL:ALL F-DEM flower 3-give-APPL:REC F-DEM M.
 ‘S/he gets to that flower; s/he gives [it] to María.’
- b. *qaq* *ʔera* *ra* *la-ʔaqtaganagak* *so* *i-taʔa*,
 COORD PH.DEM DEM 3POSS-story DEM 1POSS-father
 qoʔollaq *ayim* *ra-ʔaqt-agan-em*
 ADV PRO.1 3INTR-talk-ANTIP-APPL:BEN
 ‘And this is my father’s story, long time ago he told (it) to me.’

There is a less frequent property where the applicative is related to antipassivized verbal bases: the verbal base and the benefactive/malefactive applicative *-em* allow a 3rd person active voice index alternation: *i-* (for transitive verbs) vs. *r-* (for intransitive ones). This feature is rare, because usually *i-* vs. *r-* 3rd-person index alternations require valency adjustments involving the derivational or syntactic procedures explained above. More research is needed to confirm whether such examples represent elicitation deformations or are, presumably, a clue to a sort of converb construction, which would arise via grammaticalization. In (41a) we find a recipient-beneficiary interpretation, while (41b) has a substitutive-benefaction interpretation only; the latter reading is encoded only by choosing intransitive *r-* instead of transitive *i-*.

- (41) a. *a-ra* *ʔalo* *ayim* *i-wosh-agan-em*
 F-DEM woman PRO.1 3TR-cook-ANTIP-APPL:BEN
 ‘This woman cooks for me.’
- b. *a-ramaʒe* *ayim* *r-wosh-agan-em*
 F-PRO.3 PRO.1 3INTR-cook-ANTIP-APPL:BEN
 ‘She cooks for me.’ (she works as a cook in my restaurant)

Usually, when the semantic specification of a transitive verb root/base introduces an inanimate P, the predicate accepts a human goal, recipient or beneficiary P when applicativized, as in example (39a–b), above. Antipassivized transitive verbs change the semantic specification of the verbal base, from an active accomplishment into an activity; thus, the latter is the allowed construction used in order to derive a new applicativized one, as in examples (42).

- (42) a. *a-ramaʒe y-alekten na l-leʔe*
 F-PRO.3 3TR-stir DEM 3POSS-soup
 ‘She stirs the soup.’
 b. *a-ramaʒe r-alekten-agan*
 F-PRO.3 3INTR-stir-ANTIP
 ‘She stirs (sth.).’ (BC)
 c. *a-ramaʒe y-alekten-agan-a so towe*
 F-PRO.3 3TR-stir-ANTIP-APPL:ALL DEM salt
 ‘She stirs (sth.) with salt.’ (AC)

Finally, when the semantic specification of the verb demands a human goal as P, the applicative construction allows the introduction of a locative P argument, as in (43).

- (43) a. *qa-y-kotaq a-saʔaso Nsogoj*
 IMPRS-3TR-push F.DEM.PRON cannibal[F]
 ‘(Someone) pushes that Nsogoi.’
 b. *qa-y-kotaq-an-gi ʒeʔeʒe leʔ,*
 IMPRS-3TR-PUSH-L/D:DOWN-APPL:SIDE DEM.PRON ember
a-saʔaso Nsogoj
 F.DEM.PRON cannibal[F]
 ‘(Someone) pushes downwards to the ember, that Nsogoi.’ (The Nsogoi is pushed towards the ember.)

Whether increasing or re-arranging valency, all applied arguments behave as core P arguments in three respects: a) P number agreement, b) constituent order, and c) topicalization and its consequences in coordination and subordination pivots.

Applied arguments behave in the same way as non-applied P arguments regarding nominal number encoded in the verb, as shown in (44)–(45).

- (44) a. *so-wa nogotol-qa y-asoʔt ñi pioq*
 DEM-DL child-PL 3TR-kick.PL DEM dog
 ‘The children kick the dog.’
 b. *so nogotole-k y-asoʔt ñi-wa piogo-ʒe*
 DEM child-M 3TR-kick.PL DEM-DL dog-PL
 ‘The child kicks the dogs.’
 (45) a. *y-an so pan*
 3TR-give DEM bread
 ‘S/he gives bread away.’
 b. *y-an-em so l-qaya, so pan*
 3TR-give-APPL:BEN DEM 3POSS-brother DEM bread
 ‘S/he gives her/his brother bread.’

- c. *y-an-em-a* *so* *l-qaya-qa,* *so* *pan*
 3TR-give-APPL:BEN-P.PL DEM 3POSS-brother-PL DEM bread
 ‘S/he gives her/his brothers bread.’

Applied arguments have the same position in the clause as base P arguments. Both follow the verb when lexical but precede it when pronominal, as seen in (46) and (47), respectively.

- (46) a. *ayim s-alawat so shigyaq*
 PRO.1 1-kill DEM animal
 ‘I kill the animal.’
 b. *ʔam s-alawat*
 PRO.2 1-kill
 ‘I kill you.’
- (47) a. *so yagaykyolek y-añ-i* *so*
 DEM old man 3TR-give-APPL:REC DEM
l-qaya *so* *l-apo?*
 3POSS-brother DEM 3POSS-poncho
 ‘The old man gives his brother the poncho.’
 b. *so yagaykyolek ʔam y-añ-i* *so* *l-apo?*
 DEM old man PRO.2 3TR-give-APPL:REC DEM 3POSS-poncho
 ‘The old man gives you the poncho.’

In T/Q, non-promotional (impersonal) passives demote the A argument without any other modification in the basic clause (48).

- (48) a. *ramaze y-amaq a-so qoma?*
 PRO.3 3TR-throw F-DEM stone
 ‘He throws the stone.’
 b. *qa-y-amaq a-so qoma?*
 IMPRS-3TR-throw F-DEM stone
 ‘They (IMPRS) throw the stone.’

When used in ACs, non-promotional passives have the same pragmatic and syntactic consequences as in any BC: the (applied) P argument is topicalized and, because of this, coordination and subordination pivots can relate the (applied) P with a co-referential A or S argument in the next coordinated or subordinated clause, as seen in (49) and (50), respectively. In (49), the one who says “Yes, thank you, my grandson” is *Nsogoj*, the cannibal woman, an argument introduced by the allative applicative in the precedent clause. In (50), the allative applicative introduces a complement clause.

- (49) *nache qa-y-wir-ew-ʔa a-so-m Nsogoj*
 COORD IMPRS-3TR-arrive-L/D:in-APPL:ALL F-DEM-TOP cannibal[F]
nache e-nak-oʔ ahaʔ ñachik i-wal
 COORD 3TR-say-FOC ADV thanks 1POSS-grandson
 ‘And they arrive towards the Nsogoi and she says: “Yes, thank you, my grandson.”’
- (50) *qayka qa-y-aten-ʔa n-eta-lek a-naʔana*
 NEG.EX.PRES IMPRS-3TR-know-APPL:ALL 3MID-go-APPL:over F-DEM.PRON
kor-ereʔ
 1PL-book
 ‘It is not known what is in our book.’

4 Applicative semantics

This section presents semantic nuances that applied P arguments can encode according to the combination of high frequency applicatives with certain verbal roots/bases. Examples (51a, b, c) show that applicatives based on transitive roots/bases do not add a third argument; instead, they change the meaning expressed by the verb. The lexical base *-wagan* ‘hit’ allows only two human/animate core arguments, A and P, with or without applicatives; thus, only some applicatives can be used without altering the basic semantic template of this lexical base. On the contrary, if the speaker wants to use *-wagan* with the intention of applying a locative P argument, the applicative used is typically a locative one (51d–e).

- (51) a. *so Pedro i-wagan so l-qaya*
 DEM P. 3TR-hit DEM 3-POSS-brother
 ‘Pedro hits his brother (with the fist).’
- b. *so Pedro i-wagan-lek so l-qaya*
 DEM P. 3TR-hit-APPL:over DEM 3-POSS-brother
 ‘Pedro gives his brother a beating.’
- c. *so Pedro i-wagan-ʔa so l-qaya*
 DEM P. 3TR-hit-APPL:ALL DEM 3-POSS-brother
 ‘Pedro accidentally hits his brother.’
- d. *so Pedro i-wagan-gi l-qayk so l-qaya*
 DEM P. 3TR-hit-APPL:side 3-POSS-HEAD DEM 3-POSS-brother
 ‘Pedro accidentally hits (lit. hits on) his brother’s head.’
- e. *i-wagan-gi a-na lacampana*
 3TR-hit-APPL:side F-DEM BELL
 ‘S/he hits the bell.’

When applicatives used with transitive verbal roots/bases do not change the P's semantic role, they contribute to encode an adverbial meaning, adding a notion of intensity/volition to the lexical content of the verbal root/base. The verbal base specifies an animate P in (52a) and the directional applicative *-ge* contributes to modify the semantic meaning of the original lexical root (52b):

- (52) a. *Juan i-lo so l-yalek*
 J. 3TR-look DEM 3POSS-son
 'Juan looks at his son.'
- b. *Juan i-lo-ta-ge so l-yalek*
 J. 3TR-look-CONT-APPL:away DEM 3POSS-son
 'Juan watches/supervises his son.'

A scale of saliency governs the selection of one of the four morphemes related to human locative/directional goals (from less to more salient): *-lek* > *-ʔa* > *-eʔ* > *-ʔot*. Many verbs can allow the alternation of at least two of these morphemes. Despite this saliency scale and its overlap with the recipient-beneficiary encoding, whenever the speaker wants to highlight the benefit that a non-subject participant receives from the verbal event, that participant will be encoded as a beneficiary, which means that the same applicative morpheme *-em* is also used in intransitive clauses with a substitutive benefaction reading. Only with the verb 'give' is it possible to make a clear distinction between a recipient and a recipient-beneficiary in T/Q; with other verbs, the benefactive applicative marker *-em* is used to express both semantic notions. Thus, following Kittilä's classification (2005: 277, 295), T/Q is a beneficiary-prominent language, since "languages with few formally ditransitive verbs are more prone to beneficiary prominence".

5 Grammaticalization

Except for the origin of the allative applicative marker, there is no specific research on the grammaticalization clines of applicatives in T/Q yet. Censabella (2006b, 2008) proposes that the verb *-ta* 'go' may have become a continuous imperfective aspect marker *-ta*, and, alternatively, the allative applicative marker *-ʔa*, following in both cases universal paths of grammaticalization. Regarding other grammaticalization routes of applicatives, Censabella (2018) studied the different contexts that gave rise to a focus marker from the locative applicative *-ʔot* ('under').

In his study on T/Q serial verb constructions, González (2009) presents examples that could be interpreted as contexts of grammaticalization in which a serial verb construction gives rise to an aspectual marker plus an applicative one. Examples like (53a–b) could be interpreted as bridging contexts in grammaticalization processes because the morpheme *-ta* could be interpreted as the 3rd-person index *tV*- (cf. Table 1)

stative locational information, this applicative can relate to human arguments, providing the *locus* or spatial reference of P as related to A (55a–b).

- (54) a. *ñi qagesaq we-to-ʔot a-ra ipaq*
 DEM ant 3INTR-go-APPL:under F-DEM tree
 ‘The ant is under the tree.’
 b. *we-to-ʔot seʔeso qomaʔ*
 3INTR-go-APPL:UNDR DEM stone/mountain
 ‘S/he shelters under that stone.’
- (55) a. *a-ñi l-yale ra-tato-ʔot so l-taʔa*
 F-DEM 3POSS-daughter 3INTR-go-CONT-APPL:under DEM 3POSS-father
 ‘The daughter is under her father.’ (they are seated on a tribune/platform)
 b. *ñi l-taʔa ra-tato-ʔot a-so l-yale*
 DEM 3POSS-father 3INTR-go-CONT-APPL:under F-DEM 3POSS-DAUGHTER
 ‘The father is under his daughter.’ (they are seated on a tribune/platform)

5.1.2 The bridging context

In this context, the speaker infers a new semantic nuance from the AC, namely that the P has more saliency than the A. Both arguments refer to human entities, and with verbs like ‘ask’, ‘beg’, ‘surrender’, the A argument is in an inferior hierarchical scale than P (56). When P refers to a divinity, the spatial metaphor—coding A *under* P—is even clearer (57a); by contrast, the comitative applicative is unacceptable for speakers (57b).

- (56) *ñ-añan-q-ot ñi qar-taʔa*
 1PL.MID-surrender-1PL-APPL:under DEM 1PL.POSS-father
 ‘We surrender to our father.’ (Buckwalter 1980:149)
- (57) a. *se-taq-tek-ot ñi Dios*
 1-talk-PROG-APPL:under DEM G.
 ‘I am talking to God.’
 b. **se-taq-tek-geʔ ñi Dios*
 1-talk-PROG-APPL:COM DEM G.
 ‘I am talking with God.’²⁰

²⁰ The speaker explains as follows: “we can’t talk to God as if he were a friend”.

5.1.3 The switch context

Here, the locative interpretation fades away and allows a hierarchical one, not only in relation with divinities—via lexical conditioning—but extending the coverage to any other human being (58a–b). In these examples, the speaker freely chooses whether the human P has more or less saliency or authority in relation to A.

- (58) a. *se-taq-tek-ot* *so* *Intendente*
 1-talk-PROG-APPL:under DEM mayor
 ‘I am talking with the mayor.’ (talking to an authority)
- b. *se-taq-teg-e?* *so* *Intendente*
 1-talk-PROG-APPL:COM DEM mayor
 ‘I am talking with the mayor.’ (he is my friend)

5.1.4 Conventionalization context

In this context, the notion of saliency/hierarchy remains but another one appears too, namely one of focus, as seen in (59a) and (60a). The alternation with the benefactive applicative shows how the speaker can choose semantic nuances in different types of benefaction situations, as shown in (59b) and (60b). Explanatory comments were obtained via elicitation.

- (59) a. *a-so qomlashe y-anek a-so l-yale,*
 F-DEM T/Q.woman 3TR-give F-DEM 3POSS-daughter
 y-an-ot *a-so rokshelashe*
 3TR-give-APPL:under F-DEM non.T/Q.woman
 ‘That Qom woman gives her daughter, she gives [her] to the white woman.’
 (The daughter is given to work for that *patroness* white woman) (hierarchical applied P)
- b. *a-so qomlashe y-anek a-so l-yale,*
 F-DEM T/Q.woman 3TR-give F-DEM 3POSS-daughter
 y-an-em *a-so rokshelashe*
 3TR-give-APPL:BEN F-DEM NON.T/Q.woman
 ‘That Qom woman gives her daughter, she gives [her] to the white woman.’
 (The daughter is given to work for that white woman) (substitutive benefactive applied P)
- (60) a. *?am se-wosh-agan-ot*
 PRO.2 1-cook-ANTIP-APPL:under
 ‘I cook for you.’ (you are the patron/patroness)

- b. *ʔam se-wosh-agan-em*
 PRO.2 1-COOK-ANTIP-APPL:BEN
 ‘I cook for you.’ (I’m the cook in your restaurant)

5.1.5 Context of advanced grammaticalization

In narrative texts, when using *verba dicendi*, speakers can optionally use the morpheme *-oʔ* for introducing direct (49)—repeated here as (61)—or indirect speech (62). We propose to interpret this morpheme as a FOCUS MARKER. The clause that follows is highlighted and its S/A or P arguments—the latter in a non-promotional passive—will show the same coordination and subordination pivots as those presented in Section 3.

- (61) *nache qa-y-wir-ew-ʔa a-so-m Nsogoj*
 COORD IMPRS-3TR-arrive-L/D:in-APPL:ALL F-DEM-TOP cannibal[F]
nache e-nak-oʔ ahaʔ ñachik i-wal
 COORD 3TR-say-FOC ADV thanks 1POSS-grandson
 ‘And they arrive towards the Nsogoi and she says: “Yes, thank you, my grandson.”’
- (62) *qalagaʔi so-m shiyagawa... e-nak-oʔ ʒi y-alawat*
 COORD DEM-TOP person 3TR-say-FOC DEM 3TR-kill
qome na rokshi-pi
 ADV DEM NON.T/Q.person-COLL
 ‘... but that person. ... s/he says that s/he kills, afterwards, the white people.’

5.2 Coexisting grammaticalization contexts of the goal/directional applicative *-get* (‘approaching’)

Less studied in terms of Heine’s changing contexts, but displaying a clear path of grammaticalization nonetheless, is the cline *-get* (‘approaching’) > *-eʔ* ‘COMITATIVE’ (63). Examples (63a) and (63b) show the source-meaning context; notice that (63a) still retains the semantics of the putative serial construction. In (63c) and (63d) we can identify the bridging context, because a second interpretation of the clause is possible, while in (63e) the comitative sense indicates the switch context. Finally, (63f) shows the conventionalization context, alongside phonological erosion, with a clear comitative meaning.

- (63) a. *r-alakoi-get na shiyagawa-pi so pioq*
 3INTR-bark-APPL:approach DEM person-COLL DEM dog
 ‘The dog barks to the approaching people.’

- b. *a-so ʔaltemoy i-laʔat-get*
 F-DEM car 3INTR-destroy-APPL:approach
so l-alo kaayo
 DEM 3POSS-domestic.animal horse
 'The car crashes the horse.'
- c. *ʔam se-wat-ta-get*
 PRO.2 1-wait-CONT-APPL:approach
 'I'm waiting for you.' or 'I'm waiting with you.'
- d. *Rosa Merino i-chigoʔo-get na rokshe*
 R. M. 3TR-come-APPL:approach DEM NON.INDIGENOUS.PERSON
 'Rosa Merino comes from the criollos.' or 'R. M. comes with the criollos.'
- e. *qoʔomi s-ow-aq-ta-get a-ñi Rosita*
 PRO.1PL 1PL-be.inside-1PL-CONT-APPL:approach F-DEM R.
 'We are inside [the house] with Rosita.'
- f. *so yale r-asot-tag-eʔ a-ra ʔalo*
 DEM man 3INTR-dance-PROG-APPL:COM F-DEM WOMAN
 'The man is dancing with the woman.'

6 Conclusions

This chapter surveyed the applicative constructions attested in Toba/Qom language. These can be characterized as follows:

Morphology

- T/Q presents a paradigm of twelve morphemes which behave like applicatives. This paradigm occupies the last functional slot in the verb form, followed by a number agreement marker if the applied P is plural. The locative applicative *-lek* ('over') and *-ʔot* ('under'), the allative applicative *-ʔa* and the benefactive/malefactive applicative *-em* are the only markers in the paradigm that show morphophonologically conditioned allomorphy.
- Applicativization is highly productive in T/Q: almost all verbal roots can accommodate additional arguments via an applicative morpheme.

Syntax

- T/Q applicatives are obligatory, meaning that the only way to express the semantic roles expressed by applied phrases is by means of applicativization. Moreover, applicativization is the only available strategy to encode semantic roles other than those licensed as subjects or objects of non-applicative verb forms.

- The applied phrase shows all the syntactic properties of a transitive object or P argument.
- Applicatives in T/Q co-occur without restrictions in both active- and middle-voice verbs, and can co-occur freely within each semantic verb class.
- Each verbal root specifies the number of its obligatory arguments. Thus, in T/Q there is no P-lability or ambitransitivity: verbal roots/bases are either intransitive or transitive.
- T/Q does not have double applicatives; each predicate has only one applicative at a time. Some lexicalized applicatives could be identified, but they no longer behave as applicatives.
- In free conversation or narrative texts, T/Q speakers usually do not accept ditransitive clauses. Rather, speakers decompose complex events into sub-events.
- Whether increasing or re-arranging transitivity, in T/Q all applied arguments behave as base P arguments in three main respects: P number agreement, constituent order, and topicalization (and its consequences in coordination and subordination pivots).

Semantics

- When used with transitive roots/bases, applicatives do not add a third argument; instead, they change the meaning expressed by the verb, allowing a different semantic role from the one specified in the verbal root/base.
- Applicatives whose meaning relate to human locative/directional goals, show a scale of saliency that governs arguments (from less to more salient): *-lek* > *-ʔa* > *-eʔ* > *-ʔot*. Many verbs can take at least two of these morphemes.
- T/Q is a beneficiary-prominent language: whenever the speaker wants to highlight the benefit that a non-subject participant gets through the verbal event, it will be encoded as a beneficiary. Only with the verb ‘give’ is it possible to make a clear distinction between a recipient and a recipient-beneficiary; with other verbs, the benefactive/malefactive applicative marker *-em* is used to express both semantic notions.

Grammaticalization

- Applicatives in T/Q seem to derive from serial verbs constructions, although more research is needed in order to confirm this statement.
- Applicatives in T/Q show undergoing grammaticalization processes in different stages of evolution, as shown by the non-canonical semantic roles introduced by each applicative.

Abbreviations

A	agent-like argument in a transitive clause
ALL	allative
ANTIP	antipassive
APPL	applicative
BEN	benefactive
CAUS	causative
COLL	collective
CONT	continuous
COORD	coordinator
DEM	demonstrative
DEM.PRON	demonstrative pronoun
DL	dual
EMPH	emphatic
EX.PRES	existential presentative
F	feminine
FACT	factive
FOC	focus
H.GOAL	human goal
IMPRS	impersonal
INSTR	instrumental
INTR	intransitive
L/D	locative-directional
M	masculine
MID	middle voice
NEG	negative
P	patient-like argument in a transitive clause
PRO	personal pronoun
PH.DEM	phrasal demonstrative
PL	plural
POSS	possessive
PROG	progressive aspect
REC	recipient
RECP	reciprocal
REFL	reflexive
REP	repetitive (verbal number)
S	single argument in an intransitive clause
SUB	subordinator
TOP	topicalizer
TR	transitive
UNKW.AG	unknown agent
VBLZ	verbalizer

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7 The applicative constructions of Mapudungun

Abstract: This chapter surveys the morphology, syntax, and semantics of the applicative constructions of Mapudungun (isolate; Chile/Argentina). The four markers addressed are the verbal suffixes *-l*, *-ñma*, *-tu*, and *-ye*. With respect to syntax, the Mapudungun constructions introduce to the clausal core an argument in P role (which, given the symmetrical-voice make-up of clausal syntax in the language, appears as either a subject or an object, depending on factors unrelated to applicativization). With respect to the semantic role of the applied phrase, the markers are relatively underspecified, albeit with some tendencies: *-l* and *-ñma*-applicatives center around the notions of approach/benefaction and separation/malefaction, respectively, but they can also express a broader Concernee-Concern relation; *-tu*-applicatives typically introduce Stimuli, Goals, or Patients; and *-ye*-applicatives introduce Comitatives or Speech/Thought Topics. The marker *-l* also causativizes (with some complicating aspects in the allomorphy found with both processes), *-ñma* appears on verbal/adverbial roots expressing spatial, temporal, and manner notions, and *-tu* and *-ye* also function as denominal verbalizers. The suffix *-tu* also has a number of other functions, including telicization and the derivation of reversionary/repetitive forms (both of which are frequent), as well as antipassivization (which is severely restricted and infrequent).

1 Introduction

The present chapter describes the applicative constructions of Mapudungun (a.k.a. Mapuche language or, in older studies, Araucanian; ISO 639-3 *arn*, Glottolog *mapu1245*). This indigenous language is an isolate spoken in south-central Chile and west-central Argentina by 150,000–250,000 speakers, to different degrees of fluency (Zúñiga and Olate 2017) and has been in contact with Spanish since the 16th century. There are a handful of very similar regional varieties (including obsolescent Huilliche, occasionally considered a separate language). Grammatical applicative-related facts seem to show negligible variation across the Chilean dialects; lexical and discourse-related aspects may show important inter-dialectal variation. This chapter focuses on the conservative registers of Central Mapudungun as spoken in the Araucanía Region in Chile.

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The phenomena discussed here center around the opposition illustrated in (1).¹ Suffixing *-ñma* to the verb allows the clause to accommodate as a primary object a participant not expressible with the underived verb:

- (1) a. *Düngu-nge juez mew!*
 speak-2SG.IMP judge POSTP
 ‘Speak to/with the judge!’ (base construction)
 b. *Düngu-ñma-fi-nge juez mew!*
 speak-APPL-3.OBJ-2SG.IMP judge POSTP
 ‘Speak with the judge in his/her favor!’ (applicative construction)

To judge from Polinsky’s (2013) classification of Mapudungun as not having applicatives, the topic of the present chapter may be considered controversial. Nevertheless, Peterson’s (2007: 1) description of applicatives as “means some languages have for structuring clauses which allow the coding of a thematically peripheral argument or adjunct as a core-object argument” covers (1) rather easily. In fact, Polinsky’s own definition straightforwardly applies to (1): “[i]n an applicative construction, the number of object arguments selected by the predicate is increased by one with respect to the basic construction”. (Her source, Moesbach 1962, addresses several of the phenomena treated here, but without using the label *applicative*.) Contemporary studies of Mapudungun morphosyntactic topics have employed the notion without discussing or reviewing it (e.g., Baker, Aranovich, and Golluscio 2005; Golluscio 2007; Zúñiga 2010a).

I employ here the comparative notion of applicative constructions advanced in Zúñiga and Creissels (this volume). An applicative construction (AC) contrasts in three important respects with a base construction (BC) headed by a predicate built upon the same root. First, the predicate in the AC shows additional overt marking that distinguishes it from the unmarked predicate in the BC. Second, the participant encoded as A or S in the BC appears as A or S in the AC. Third, the applied phrase (AppP) of the AC, in a role other than A or S, cannot be expressed in the BC at all, or it appears in the latter as a non-core constituent with a different coding. This comparative notion, however, is based on a Comrian model that uses the notions of A, P, and S understood as “syntactic terms whose prototypes are defined in semantic terms” (Comrie 1989: 111), which is insufficient to adequately capture Mapudungun verbal clause structure due to what I analyze as a symmetrical voice opposition in Section 2.

The chapter is structured as follows. Section 2 sketches the necessary basic information about Mapudungun morphosyntax and outlines what I think is the necessary

¹ Unless otherwise specified, numbered examples come from elicitation sessions I conducted with speakers in Chile in the early 2000s. The orthographic convention used here is the *Alfabeto Mapuche Unificado*, I have unified the spelling, and all interlinear glosses are my own. Examples provide phonologically underlying forms; to arrive at surface forms, some minor elision, assimilation, resyllabification, and epenthesis rules apply (Zúñiga 2006: Ch. VII.1.1).

adaptation to the basic Comrian A/P/S model in order to account for the structure of transitive clauses in the language. Sections 3, 4 and 5 survey the morphological, syntactic, and semantic characteristics of the applicatives of the language, respectively. Section 6 outlines other uses of the applicative markers, and Section 7 summarizes the main findings.

2 Basics of Mapudungun morphosyntax

2.1 Morphology

Mapudungun morphology is predominantly suffixing and agglutinative; it shows virtually no flexivity or fusion of formatives, and most grammaticalized elements show separative exponence and occur in concatenative strings. Nominal morphology is rather limited: the only process that leads to some structural complexity there is productive compounding. By contrast, verbs allow for verb-noun and verb-verb compounding and can take a high number of derivational and inflectional affixes, only very few of which need to be present for words to be well formed (Zúñiga 2017). Voice(-related) suffixes include reflexive *-w*, Agent-less passive *-nge*, some causatives, and several applicatives (see Golluscio 2010 and Zúñiga 2015 for more on transitivity, valency, and voice in Mapudungun).

Extant descriptions of Mapudungun morphology propose a templatic, rather than a layered or hybrid, structure of the verb complex. Nevertheless, accounts disagree regarding both the template's rigidity and the number of slots and fillers to be distinguished. Despite bearing some superficial similarities to Smeets's (2008) account, the model espoused here is closer to the partial proposals advanced in Augusta (1903), Harmelink (1996), Salas (2006), and Golluscio (2010).

2.2 Basic syntax

In this study, the terms *avalent*, *monovalent*, *bivalent*, and *trivalent* refer to the syntactic valency of predicates (and are abbreviated as “v0”, “v1”, etc.). *Zero-argument*, *one-argument*, *two-argument*, and *three-argument* describe clause types.

In Mapudungun, heads mark the relationships between themselves and some of their dependents at the clause level, and participants can be subjects, primary and secondary objects, oblique objects, or adjuncts.² Subjects and primary objects can bear a wide range of semantic roles, not only due to the specific predicates that assign them

² Instead of SUBJECT and OBJECT, other accounts have proposed FOCAL and SATELLITE PERSON (Salas 2006), and PRIMARY and SECONDARY ARGUMENT (Zúñiga 2015).

to their arguments but also because of the alternation between actor and undergoer voices, as will become apparent shortly. Secondary objects are usually Theme-like arguments of trivalent predicates. The distinction between oblique objects and adjuncts is semantic; the former express participants more involved in the predicate semantics while the latter bear peripheral semantic roles. See Zúñiga (2019) for more details on grammatical relations in Mapudungun.

The valency classes of Mapudungun underived predicates are summarized in Table 1 below (cf. Zúñiga 2015). Examples of the predicate and clause types follow.

Table 1: Valency classes of Mapudungun underived predicates and associated clause types.

Predicate class	Clause type	Arguments
I. Aivalent (e.g. <i>mawün-</i> ‘rain’)	Zero-argument	—
IIa. Monovalent (e.g. <i>la-</i> ‘die’)	One-argument	SBJ
IIb. Extended monovalent (e.g. <i>kon-</i> ‘enter’)	Two-argument	SBJ + OOBJ
IIIa. Bivalent (e.g. <i>mütrüm-</i> ‘call’)		SBJ + POBJ
IIIb. Extended bivalent (e.g. <i>tüku-</i> ‘put’)	Three-argument	SBJ + POBJ + OOBJ
IV. Trivalent (e.g. <i>elu-</i> ‘give’)		SBJ + POBJ + SOBJ

- (2) a. *Mawün-i.*
rain-IND[3]
‘It rained.’ (I)
- b. *La-i Rayen.*
die-IND[3] R.
‘Rayén died.’ (IIa)
- c. *Kon-i Nawel (Rayen mew).*
enter-IND[3] N. R. POSTP
‘Nahuel entered (Rayén’s house).’ (IIb)
- d. *Mütrüm(-fi)-n Rayen. — Mütrüm-e-n-mew Rayen.*
call-3.OBJ-1SG.IND R. call-INV-1SG.IND-3.OBJ R.
‘I called Rayén.’ (AV, direct; IIIa) ‘Rayén called me.’ (UV, inverse; IIIa)
- e. *Tüku(-fi)-n ilo challa mew.*
put-3.OBJ-1SG.IND meat pot POSTP
‘I put meat in the pot.’ (AV, direct; IIIb)
- f. *Elu-fi-n makuñ. —*
give-3.OBJ-1SG.IND blanket
‘I gave him/her a blanket.’ (AV, direct; IV)
Elu-e-n-mew makuñ.
give-INV-1SG.IND-3.OBJ blanket
‘S/he gave me a blanket.’ (UV, inverse; IV)

There are two kinds of clauses headed by bivalent or trivalent predicates: actor-voice (AV) and undergoer-voice (UV) clauses, which feature direct and inverse verb forms, respectively. The choice between these clause types is based on person and animacy of the subject and the primary object, as well as on their relative topicality (Zúñiga 2006: Ch. VII). A simplified nominal hierarchy like [1/2 > 3 topical > 3 non-topical] will suffice for our present purposes. In interactions between two animate referents, when the agentive core argument outranks the non-agentive core argument on the nominal hierarchy, AV clauses are used; UV clauses are used when the converse situation holds. The referential status of secondary objects (e.g., Theme-like arguments of trivalent predicates) and oblique objects is irrelevant for the choice between clause types. In both clauses in (d), the 1st person is the subject and the woman is the primary object; Agent and Patient are the subject and the primary object in the AV clause on the left-hand side, and the primary object and the subject in the UV clause on the right-hand side, respectively. In (f), Agent, Recipient, and Theme are the subject, the primary object, and the secondary object in the AV clause on the left; they are the primary object, the subject, and the secondary object in the UV clause on the right. The agentive 3rd-person object in UV clauses is invariably head-marked as *-mew*. The conditions governing the appearance of the non-agentive 3rd-person object marker *-fi* in AV clauses are complex; *-fi* invariably occurs with trivalent predicates like *elu-* ‘give’ in (f) and variably occurs with bivalent predicates like *mütrüm-* ‘call’ in (d), depending on animacy, definiteness, and topicality of the object, as well as the proper-common distinction (Zúñiga 2010b).

Thus, derived and underived bivalent and trivalent predicates occur in the actor-voice direct form, the undergoer-voice inverse form, or in either, depending on the core arguments’ inherent semantic and relative pragmatic feature values.³ Instead of a one-to-one correspondence between the syntactic roles and the coding characteristics of core arguments, we find a correspondence mediated by a system of symmetrical voices, as depicted in Table 2. A (the argument of transitive verbs whose morphosyntactic behavior is that of the Agent of prototypical transitive verbs) is the subject in AV clauses and the object in UV clauses; P (the argument of transitive verbs whose morphosyntactic behavior is that of the Patient of prototypical transitive verbs) is the subject in UV clauses and the object in AV clauses.⁴

3 This holds not only for high-transitivity predicates like *langüm-* ‘kill’ and *i-* ‘eat’ (cf. the “prototypical transitive verbs” in Creissels, forthcoming) but also for low-transitivity ones like *pe-* ‘see’ and *ayü-* ‘love’. Some high-transitivity verbs (e.g., *trafo-* ‘break’) never occur in inverse forms because their Patient is inanimate, and two-argument constructions with inanimate Agents and animate Patients are banned in Mapudungun.

4 This symmetrical-voice account refers to syntax only. Both the morphology and the discourse frequency of direct and inverse forms are asymmetrical; the formal direct-inverse opposition is privative, rather than equipollent (see [2d] and [2f]), and inverse forms are seldom found in narrative texts (despite some being obligatory to encode those specific states of affairs, viz. those involving interactions between 1st/2nd and 3rd persons).

Table 2: Grammatical relations in transitive clauses.

	A	P
Actor voice (direct)	subject	primary object
Undergoer voice (inverse)	primary object	subject

Constituent-order regularities have not been explored systematically yet, but what we know so far about the flexible and (possibly) dominant VS+VO order of Mapudungun can be summarized as follows. Typical verbal clauses have no overt argument NP, or only one. Typical one-argument verbal clauses have their subject NP immediately after the predicate (2b). Lastly, typical two-/three-argument verbal clauses have their object NPs immediately after the predicate (2c–f) (if both objects are present, the secondary object usually precedes the primary object).

2.3 Valency/voice operations

Passivization with *-nge* applies only to bivalent and trivalent predicates; it suppresses the Agent, promotes the Patient/Recipient from primary object to subject, and leaves the Theme secondary object (if any) unaltered. The passive counterparts of (2d/f) are given in (3). Note the new two-argument clause type IIIC illustrated in (b), which has a non-agentive subject and a secondary object; this plays a role in the discussion of an applicative lookalike subtype in Section 6.2.1.

- (3) a. *Mütrüm-nge-n.*
 call-PASS-1SG.IND
 ‘I was called / someone called me.’ (IIa)
- b. *Elu-nge-n makuñ.*
 give-PASS-1SG.IND blanket
 ‘I was given a blanket.’ (IIIC)

Nominal incorporation (NI) is productive with bivalent verbs, possible but lexically constrained with trivalent verbs, and restricted with monovalent verbs. At first sight, bivalent verbs seem to become monovalent when they incorporate their Patient/Theme (4); we will see in Section 4.3, however, that they can actually become labile.

- (4) a. *Weñe-ke-n sañchu.*
 steal-HAB-1SG.IND pig
 b. *Weñe-sañchu-ke-n.*
 steal-pig-HAB-1SG.IND
 Both: ‘I usually steal pigs.’

Non-agentive monovalent verbs allow NI, but only if the new subject and the incorporate are in a possessive relation (5) (Baker, Aranovich, and Golluscio 2005). This is normally found in spontaneous discourse with body parts, but examples with owned items are not difficult to find:

- (5) a. *Lüf-i (ĩñche) ñi ruka.*
 burn-IND[3] 1SG.PRO 1SG.PSR house
 b. *(Iñche) lüf-ruka-n.*
 1SG.PRO burn-house-IND-1SG.IND
 Both: ‘My house burned down.’

The voice operators addressed in this chapter are NUCLEATIVIZERS: they allow participants not encoded as core terms in base constructions (BCs) to be encoded as such in derived monoclausal constructions (see Zúñiga and Creissels, this volume). Causatives introduce a causer-Agent in A role, and applicatives a non-Agent in P role, to the clause. Unlike in many other languages, rather than invariably introducing these arguments as subjects and objects, respectively, in Mapudungun the new arguments’ realization is contingent on the choice between actor and undergoer voices; when both highest-ranking participants are animate, these nucleativizers lead to constructions that systematically alternate. With AGENTIVE NUCLEATIVIZERS (ANS), the causer in A role is the subject with the actor-voice direct form (6b) and the primary object with the undergoer-voice inverse form (6c):

- (6) a. *Aye-n.*
 laugh-1SG.IND
 ‘I laughed.’
 b. *Aye-l-fi-n ñi wenüy.*
 laugh-CAUS-3.OBJ-1SG.IND 1SG.PSR friend
 ‘I made my friend laugh.’ (direct, AV)
 c. *Aye-l-e-n-mew ñi wenüy.*
 laugh-CAUS-INV-1SG.IND-3.OBJ 1SG.PSR friend
 ‘My friend made me laugh.’ (inverse, UV)

With NON-AGENTIVE NUCLEATIVIZERS (NANS), the new argument in P role is the primary object with the actor-voice direct form (7a) and the subject with the undergoer-voice inverse form (7b):

- (7) a. *Aye-tu-fi-n ñi wenüy.*
 laugh-APPL-3.OBJ-1SG.IND 1SG.PSR friend
 ‘I laughed at my friend.’ (direct, AV)

- b. *Aye-tu-e-n-mew* *ñi* *wenüy*.
 laugh-APPL-INV-1SG.IND-3.OBJ 1SG.PSR friend
 ‘My friend laughed at me.’ (inverse, uv)

Thus, with such Mapudungun nucleatives, there is a disconnect between the introduction or promotion of a core argument and the realization of that argument (see Figure 1 below). The direct-verb, actor-voice, Examples (6b) and (7a) instantiate causatives and applicatives, respectively, in the familiar sense; the inverse, undergoer-voice, Examples (6c) and (7b) are their syntactic mirror images:

Default			Mapudungun		
	AN	NAN		AN	NAN
SBJ	CAUS		SBJ	(6b)	(7b)
OBJ		APPL	OBJ	(6c)	(7a)
				CAUS	APPL

Figure 1: Two selected nucleative opposition types.

3 Morphology

The four applicative markers in the language are the verbal suffixes *-tu*, *-ye*, *-l*, and *-ñma*. No serial verb constructions or converbal constructions in the language qualify as ACs.⁵

The markers *-tu* and *-ye* are invariable; *-l* and *-ñma* show phonologically conditioned allomorphy. The allomorphs of *-l* are: *-l* after vowels, *-ül* after *w*, and *-el* elsewhere. Note that the suffix commonly appears as *-lel* with some vowel-final roots (viz. *i-* ‘eat’, *pe-* ‘see’, *pi-* ‘say’, *ina-* ‘follow’, *kullkü-* ‘reserve [domestic animals]’, and *kintu-* ‘look for’), and as *-yel* (with epenthetic *y*) with *la-* ‘die’ (see [36]). The allomorphs of *-ñma* are: *-ñma* after vowels and *-ma* elsewhere. Nevertheless, the suffix consistently appears as *-üñma* after the *m*-causative and some *m*-final roots—viz. *kim-* ‘know’ and *rungüm-* ‘grind’. Other exceptions include roots like *wew-üñma-* ‘win on (sbdy)’.⁶

5 I do not address here two markers that occur only with few verbs, namely *-mpe* ~ *-ñpe* (e.g., *illku-* ‘get angry’ > *illku-ñpe-* ‘call names’; cf. Smeets 2008: 310) and *-kütuye* (e.g., *rüpu-* ‘sever’ > *rüpu-kütuye-* ‘carve [with an axe]’, Augusta 1916: 199; cf. Smeets 2008: 288f). Verb compounding with *künü-* ‘leave’, *nie-* ‘have’, and *tüku-* ‘put’ also lies beyond the scope of the present chapter; see Augusta (1903: 261–268) and Smeets (2008: 293f, 316).

6 Augusta (1916: 57) records the anomalous minimal pair *ngüf-ma-* ‘have (a body part) blocked’ vs. *ngüf-üñma-* ‘be surprised by dusk’. Upon closer inspection, the latter meaning appears to be regularly expressed by *ngüfke-ñma-* (or other verbs built on a non-cognate root); the unexpected form *ngüf-üñma-* seems to occur only sporadically and in unsystematic variation nowadays. (I am grateful to Aldo Olate for his help with this issue.)

All four markers are fully grammaticalized elements. The suffix *-tu*—actually, all *tu*-suffixes, see further down—probably originated from the verbal root *tu*- ‘get, take’. Strictly verbal *-ye* is likely a grammaticalized version of *ye*₁- ‘carry, bring’, and denominal *-ye* probably originated in *ye*₂- ‘regard as’. The etymon of *-l* may be *el*- ‘set, put’, *elu*- ‘give’, or *wül*- ‘give away, hand’. The suffix *-ñma* might be related to the verbal root *man*- ‘be lucky’, recorded in Augusta (1916: 131) for the Huapi dialect, but it might also have been originally polymorphemic (Zúñiga 2009b).⁷

The four markers show variation regarding their specificity. First consider applicative *-l* vis-à-vis causative *-l*. Mapudungun has four morphological causatives, two of which can co-occur with the applicatives and are particularly common. The *m*-causative is restricted to a closed but non-negligible class of monovalent verbs where the causee is low in animacy/control, for instance, *wadkü-m-i ko* (boil-CAUS-IND[3] water) ‘s/he boiled the water’. By contrast, the *l*-causative is productive and used frequently with monovalent verbs where the causee is high in animacy/control, for instance, *aye-l-e-n-mew* (laugh-CAUS-INV-1SG.IND-3.OBJ) ‘s/he made me laugh’. A number of verbs can take either suffix (e.g., *tran*- ‘fall’ > *tran-üm*- ‘fell’ vs. *tran-el*- ‘knock down’); see Golluscio (2007) for details. The allomorphy facts of causative *-l* mirror those of applicative *-l*, with the caveat that *-lel* is only an applicative morph. I therefore see this as an erstwhile instance of the much-cited causative-applicative polysemy that, in this case, has given rise to two different templatic slots—the causative appears closer to the root (see [8b]), and several other derivational markers can come in between both positions—and two functionally distinct fillers with very similar allomorphs.⁸ In addition, *-l* is a denominal verbalizer.

Second, applicative *-ye* has three homonyms: a denominal verbalizer, an unclear and obsolescent aspectual marker denoting completion or duration, and a marker denoting distributivity or multiplicity.

Third, some ambiguous elements that can be either verbal roots or adverbs and express spatial, temporal, and manner notions can appear extended by *-ñma*. Those elements can occur either on their own (e.g., *llekü*- ‘[get] close’, *fentre*- ‘[be] much’, and *welu*- ‘but; cross [v1]’), with *-ñma* in derived verbs (e.g., *llekü-ñma*- ‘approach [v2]’, *fentre-ñma*- ‘last a long time’, *welu-ñma*- ‘mistake [v2]’), or with *-ñma* in adverbs (e.g., *llekü-ñma* ‘near’, *fentre-ñma* ‘for a long time’, *welu-ñma* ‘upside down, backwards’). Except for these “relationalizers”, *-ñma* does not seem to have any homonyms.⁹

7 Evidence for this comes from the existence of autobenefactive *-ñmu* (e.g. in *küdaw-ñmu-n* ‘I worked for my own benefit’, Smeets 2008: 274). This element may be etymologically related to *-ñma*—e.g., via an erstwhile composition along the lines of **-ñ(-)m(-a)* ‘APPL’ + **-u* ‘REFL’—but it is not an applicative.

8 Smeets (2008) postulates three different morphemes *-(e)l*, *-(ü)l* and *-(l)el* in three separate templatic slots. In her account, the suffix *-(ü)l* denotes higher affectedness of the primary object (pp. 287–288).

9 Smeets (2008: 276f, 301f) postulates two different morphemes *-(ñ)ma* (“experience”) and *-(ü)ñma* (“indirect object”) in two separate templatic slots.

Lastly, it is still unclear how to best analyze the instances of grammaticalized *tu*'s in the verbal complex. At least three homophonous suffixes need to be distinguished synchronically: the denominal verbalizer (e.g., *kofke* 'bread' > *kofke-tu₁*- 'eat bread'), the telicizer (e.g., *nge*- 'be' > *nge-tu₂*- 'become'), and the reversionary/repetitive (e.g., *aku*- 'arrive' > *aku-tu₃*- 'arrive back'). (One of the ways to build iterative stems might be a special case of the reversionary/repetitive, e.g. *rüngkü*- 'jump' > *rüngkü~rüngkü-tu*- 'bounce'; see Zúñiga and Díaz-Fernández 2014). The applicative and the reversionary/repetitive could be originally the same as the antipassive *-tu₄* (e.g., *imül*- 'roll' [v2] > *imül-tu₄*- 'roll for fun [v1]'). The valency-neutral suffixes (e.g., *kedif-tu*- 'shear [v2]' and *kewa*- 'fight [v1]' > *kewa-tu*- 'fight for fun [v1]') might also be instances of a bleached erstwhile applicative, and I regard them as such here. In sum, I tentatively distinguish deverbal *-tu₁*, aspectual *-tu₂* and *-tu₃*, and a broad polysemous *-tu₄* that has applicativization as one of its functions.

Applicatives can co-occur with causatives on the one hand and passives on the other; the former co-occurrence seems to be subject to semantic/pragmatic restrictions only; I have not found any restrictions for the latter. Regarding the combinability of the applicative suffixes among themselves, valency-altering *-tu* and *-ye* do not appear to occur twice on the same verb. They can occasionally combine with *-l* and *-ñma*, for instance: *tüku*- 'put' > *tüku-tu*- 'put at/on' > *tüku-tu-l*- 'put at/on for'. How freely *-l* and *-ñma* can combine with themselves or with each other is controversial; Smeets (2008: 280) says that the combinations *-l+ma* and *-ñma+ñma* are infrequent and unacceptable, respectively. Salas (2006:122) found that *ñma*-applicativization of an applicative form is admissible, at least with passivized verbs (8). My own work confirms Salas's findings for active clauses as well, albeit with some variation and uncertainty on the part of the speakers.

- (8) a. *Weñe-ñma-ñma-nge-i-m-i waka tami fotüm.*
steal-APPL-APPL-PASS-IND-2-SG cow 2SG.PSR son.of.man
'Someone/people stole your son's cow.'
- b. *Küpa-l-el-ma-nge-i-m-i kuram tami ñuke.*
come-CAUS-APPL-APPL-PASS-IND-2-SG egg 2SG.PSR mother
'Someone/people brought your mother eggs.'

Augusta (1903: 62) reports the following instance of *l*-stacking that does not involve causatives, and I have been able to find analogous forms rather easily in elicitation with other bivalent verbs. In such examples, each *-l* simply accommodates an AppP of its own into the clause (see § 4):

- (9) a. *Nentu-en!*
remove-2SG→1SG.IND
'Get me out (e.g., of jail)!'

- b. *Nentu-l-en* *wayun!*
 remove-APPL-2SG→1SG.IND thorn
 ‘Remove the thorn from me!’
- c. *Nentu-l-el-en* *ñi wayun tañi fotüm!*
 remove-APPL-APPL-2SG→1SG.IND 3.PSR thorn 1SG.PSR son.of.man
 ‘Remove the thorn from my son!’

Instances of *ñma*-stacking are rare in published sources but can be found, as illustrated in (10). In (10a), *anü-* ‘sit down’ first accommodates via *ñma*-suffixation the location on which the interlocutor sits as core argument, and then further accommodates the location’s possessor, that is, the speaker. In (10b), with *üfülü-* ‘sip, suck up’, the first *ñma* is syntactically neutral—it merely changes the verb’s meaning from ‘sip’ to ‘swallow’—and the second accommodates the possessor of the ship, who appears as subject of an UV clause because it is animate (unlike the inanimate but potent waves):

- (10) a. *Anü-ñma-ñma-ki-eli* *ñi lifro!*
 sit-APPL-APPL-NEG-2SG→1SG.SUBJ 1SG.PSR book
 ‘Don’t you (SG) sit on my book!’ (Augusta 1916: 9)
- b. *Foche üfülü-ñma-ñma-e-i-mew* *ñi nafiu.*
 wave suck.up-ñMA-APPL-INV-IND[3]-3.OBJ 3.PSR ship
 ‘The waves swallowed his ship.’ (Augusta 1916: 271)

Mapudungun applicatives are not systematically restricted by either tense-aspect-mood values or the direct-inverse opposition, nor do they occur less often on main-clause finite verb forms than on subordinate nonfinite forms. Verbs with more than two applicatives, which would normally have more than three objects in the clause, are absent in extant texts and are virtually always rejected in elicitation. There seems to be a processing-related tendency not to applicativize verbs whose morphological make-up is already considerably complex, which might explain why applicativization is seldom found together with nominal incorporation, even though there is no hard constraint on their co-occurrence.

4 Syntax

4.1 General comments

Mapudungun applicatives are P-applicatives (Creissels, forthcoming; Zúñiga and Creissels, this volume). Most are TRANSITIVIZING, but some are REDIRECTING; the latter are valency-neutral but not syntax-neutral (i.e., they affect argument realization).

Regarding the status of the applied phrase in the derived construction, Mapudungun applicatives are either PRIMARY-OBJECTIVE or SUBJECTIVE; the correspondences between predicate classes, clause argument inventories, and applicative types are summarized in Table 3 below.

Table 3: Mapudungun transitivity applicative types.

	base predicate/clause		derived predicate/clause	
A	IIa ₂ /IIb	SBJ (+OOBJ)	IIIa	SBJ + POBJ
B	IIIa/IIIb	SBJ + POBJ (+OOBJ)	IV	SBJ + POBJ + SOBJ
C	IV	SBJ + POBJ + SOBJ	V	SBJ + POBJ + 2X SOBJ

With trivalent, bivalent, and most monovalent base predicates, primary-objective and subjective applicatives regularly alternate, as mentioned in Section 2.3. Argument realization is determined by the rules that govern morphosyntactic inversion and the opposition between actor-voice and undergoer-voice clauses: the AppP is a primary object in an AV clause and a subject in an UV clause. Note that one clause type instantiated in derived clauses is not available with underived predicates, namely four-argument clauses (Clause Type V, with Applicative Type C).

Regarding the status of any companion objects to the AppP in the clause, base primary objects appear as secondary objects in the derived construction; there are no double- or triple-object constructions in Mapudungun in the sense of syntactically equivalent primary objects.

Regarding the status of the semantic equivalent of the AppP in the base construction, two cases must be distinguished. If the referent expressed by the AppP is a Concernee (or “External Possessor”; see Van de Velde 2020), it can be expressed as a non-argumental, NP-internal, constituent in the base clause, even though speakers consider such constructions stilted or unidiomatic, especially with kinship terms and part-whole relations (OPTIONAL APPLICATIVES). By contrast, non-Possessors could be expressed in an adpositional phrase in the base clause in some very few instances in principle (e.g., with the semantically void postposition *mew*), but such clauses are virtually never found outside of elicitation, and even there they are often semantically opaque and strongly dispreferred (OBLIGATORY APPLICATIVES).

4.2 Individual markers/constructions

The suffix *-tu* can have a syntactic effect, either transitivity (e.g., Type A, *ad-* ‘be beautiful’ > *ad-tu-* ‘find beautiful’, and Type B, *ütrüf-* ‘throw’ > *ütrüf-tu-* ‘throw at’) or, rather exceptionally, redirecting (e.g. *ingka-* ‘help’ > *ingka-tu-* ‘ask for help’, Augusta 1916: 65). The marker can also have a syntactically neutral and even a valency-decreasing effect (see § 6).

Ye-suffixation can also be syntax-neutral (see § 6), but it often has a syntactic effect, either transitivity (e.g., Type A, *ngüma*- ‘weep’ > *ngüma-ye*- ‘weep about, mourn’) or redirecting (with *n[gl]ütram*- ‘tell, narrate’, *pi*- ‘tell, say’, and *wifül*- ‘throw [liquid]’). See in (11) how bivalent/trivalent *n(g)ütram*- ‘tell (sthg.), tell (sthg.) to (sbdy.)’ becomes strictly trivalent with *-l* (11b) and bivalent while changing the semantic role of the object with *-ye* (11c):

- (11) a. *Nütram-n tüfachi epew.* / *Nütram-fi-n tüfachi epew.*
 tell-1SG.IND this story tell-3.OBJ-1SG.IND this story
 ‘I told this story.’ ‘I told this story to him/her/them.’
- b. *Fey fey nütram-el-e-n-mew.*
 DEM DEM tell-APPL-INV-1SG.IND-3.OBJ
 ‘S/he told me that.’ (Augusta 1916: 153)
- c. *Nütram-ye-i chi weychan.*
 tell-APPL-IND[3] ART war
 ‘S/he talked about the war.’ (Augusta 1916: 153)

The statement-question pair in (12) illustrates Type-B *l*-applicativization of the underived bivalent base predicate *dewma*- ‘make’ in a sentence pair (data from Augusta 1903: 75). *Kiñe makuñ* ‘a blanket’, the primary object in (12a), is a secondary object in (12b); the third person asked about is the primary object in (12b), which has access to *fi*-indexing on the verb and is the subject of a corresponding passive.

- (12) a. *Tañi ñuke dewma-ke-i kiñe makuñ.*
 1SG.PSR mother make-HAB-IND[3] one blanket
 ‘My mother is making a blanket.’ (BC)
- b. *Iney dewma-l-ke-fi-i kiñe makuñ tami ñuke?*
 who make-APPL-HAB-3.OBJ-IND[3] one blanket 1SG.PSR mother
 ‘For whom is your (SG) mother making a blanket?’ (AC)

In such AV clauses, the subject remains unaltered by applicativization; this holds for all markers except for those cases where *-ñma* behaves like an applicative and a passive combined (see § 6.2.1). If the AppP is a highly topical 3rd person or a speech-act participant, however, an UV clause must be used, in which the non-agentive new argument is the subject; both the Theme (*kiñe makuñ* ‘a blanket’) and the Agent (*tami ñuke* ‘your mother’, the base subject) are objects (13):

- (13) *Dewma-l-ke-e-n-mew kiñe makuñ tami ñuke.*
 make-APPL-HAB-INV-1SG.IND-3.OBJ one blanket 2SG.PSR mother
 ‘Your mother made a blanket for me.’

L-applicativization is not productive with underived monovalent predicates (i.e., Type A); cases like *wirar*- ‘shout (v1)’ > *wirar-el*- ‘shout at’ amount only to a handful of verbs and show significant variation in how speakers use them and in how confident the latter are about their usage.

The pair in (14) illustrates Type-B *ñma*-applicativization of bivalent *nütu*- ‘take’:

- (14) a. *Nütu-n kiñe kawello.*
 take-1SG.IND one horse
 ‘I took the horse.’ (BC)
- b. *Nütu-ñma-ñi-n ñi kawello.*
 take-APPL-3.OBJ-1SG.IND 3.PSR horse
 ‘I took his/her horse.’ (AC)

The following examples show how an underived monovalent verb in (15a) becomes bivalent in (15b) (Type A) and, after further applicativization, trivalent in (15c) (Type B). Unlike with *l*-applicativization, instances like (15b) are rather frequent; those like (15c) seem to be less common (see §§ 3 and 5).¹⁰

- (15) a. *Feyti küpa-lu anü-a-i.*
 DEM come-PTCP sit.down-FUT-IND[3]
 ‘Those who have come will have to sit down.’ (Smeets 2008: 89)
- b. *Anü-ñma-ki-lnge chumpiru!*
 sit.down-APPL-NEG-2SG.SUBJ hat
 ‘Do not sit on the hat!’ (Augusta 1916: 9)
- c. *Anü-ñma-nie-ñma-en ñi makuñ.*
 sit.down-APPL-ASP-APPL-2SG→1SG.IND 1SG.PSR blanket
 ‘You (SG) sat on my coat.’ (Smeets 2008: 303)

Underived trivalent predicates are not numerous, but they allow Type-C applicativization with *-l* and *-ñma*. Labile *pi*- ‘tell/say (to)’—the verb can take one, two, or three core arguments—behaves as expected when trivalent, both syntactically and semantically. In an AV applicative construction, the Theme appears as secondary object and the primary object is a Beneficiary or Maleficiary, often construed via kinship (in UV applicative constructions, subjects and primary objects swap places): *pi-lel*- means ‘tell (sbdy.) (sthg.) on behalf of’ and *pi-ñma*- ‘to tell (sbdy.) (sthg.) to the detriment of’. Trivalent *müntu*- ‘take away’ behaves alike. By contrast, trivalent *elu*- ‘give’ in (16) behaves as expected only with *-l* (16a); with *-ñma* (16b), there is no syntactic effect and the reading is one of permissive causation (and the suffix is actually optional or “emphatic” in that construction:

¹⁰ Golluscio (2010: 738) says that *ñma*-suffixation can be valency-neutral with bivalent base predicates, which I have found to be the case only exceptionally.

- (16) a. *Elu-l-en* *kofke tañi witran!*
 give-APPL-2SG→1SG.IND bread 1SG.PSR foreigner
 ‘Give bread to my foreigner!’ (Augusta 1916: 39)
- b. *Ñi chaw elu(-ñma)-e-n-mew* *ñi fem-a-el.*
 1SG.PSR father give-APPL-INV-1SG.IND-3.OBJ 1SG.PSR do-FUT-NFIN
 ‘My father has allowed me to do it.’ (Augusta 1916: 39)

Morphosyntactic inversion operates exactly as with bivalent base predicates (see the uv clause in [16b]); with nontopical 3rd-person AppPs, AV clauses are used, in which the (new) non-agentive participant is the primary object (17):

- (17) a. *Fey pi-lel-fi-n* *tañi chaw.*
 DEM tell-APPL-3.OBJ-1SG.IND 3.PSR father
 ‘I told that to her/his father for her/him.’
- b. *Ñi chaw elu(-ñma)-fi-i* *ñi fem-a-el.*
 3.PSR father give-APPL-3.OBJ-IND[3] 3.PSR do-FUT-NFIN
 ‘Her/his father has allowed her/him to do it.’

4.3 Summary and further points of interest

The syntactic effects of different applicatives are summarized in Table 4 below.

Table 4: Mapudungun transitivity applicative types.

	<i>-tu</i>	<i>-ye</i>	<i>-i</i>	<i>-ñma</i>
Valency-increasing/ Transitivity				
Type A: IIa/IIb>IIIa	✓	✓	(✓)	✓
Type B: IIIa/IIIb>IV	✓	✗	✓	✓
Type C: IV>V	✗	✗	✓	(✓)
Valency-neutral/ Redirecting				
IIa>IIa	(✗)	✓	✗	✗

Note how applicativization interacts with nominal incorporation. Example (4) above illustrated the latter process with the bivalent verb *weñe-* ‘steal’, which is also used in (18) below (from Augusta 1903: 293). Applicativization works as expected with the default clause (18a), turning the bivalent verb trivalent, but the verb-noun compound in (18b) does not take *-ñma* (or any other applicative marker) in order to license the third argument; as mentioned in Section 2 above, *weñe-sañchu-* is labile (bivalent/trivalent) and means ‘steal a pig / pigs (from)’:

- (18) a. *Weñe-ñma-e-n-mew* *ñi* *sañchu*
 steal-APPL-INV-1SG.IND-3.OBJ 1SG.PSR pig
 b. *Weñe-sañchu-e-n-mew*.
 steal-pig-INV-1SG.IND.3.OBJ
 Both: ‘S/he stole my pig from me.’

Something analogous happens with incorporating monovalent verbs (19) (cf. Example [5]). The simple stem can be applicativized and become bivalent (19a), but the strictly monovalent compound verb *lűf-ruka-* cannot (19b):

- (19) a. *Lűf-ma-n* *ñi* *ruka*.
 burn-APPL-1SG.IND 1SG.PSR house
 b. *Lűf-ruka(*-ma)-n*.
 burn-house-APPL-1SG.IND
 Both: ‘My house burned down on me.’

In fact, this alternation between applicativized and incorporating versions of non-agentive monovalent base predicates with possessors appears to be systematic with body parts, as in (20):

- (20) a. *Ngűf-ma-n* *ñi* *yűw*.
 get.blocked-APPL-1SG.IND 1SG.PSR nose
 b. *Ngűf-yűw-n*.
 get.blocked-nose-1SG.IND
 Both: ‘I got my nose blocked.’

Now note that transitivity applicativization with *-l* and *-ñma* seems to make the marking of the new argument on the predicate obligatory, not unlike the situation found in three-argument clauses.¹¹ 1st and 2nd person core arguments are always overtly marked in some way in two- and three-argument BCs,¹² but 3rd-person primary object show variation in direct verb forms (they are invariably marked on inverse forms). For instance, the primary object of bivalent *leli-* ‘look at’ can, but need not, be marked, while the primary object of trivalent *elu-* ‘give’ must be marked (21):¹³

¹¹ I have found this to be the case with most older speakers, but the speech of some younger speakers shows the pattern reported by Golluscio (2010: 721–722): *fi*-marking of the primary objects of derived verbs is as fluid as the one found with underived bivalent verbs, rather than as rigid as found with trivalent verbs. More research is needed here.

¹² Finite verbs expressing 2SG→1SG interactions constitute an exception: they take the endings *-e-n* (INV-1SG.IND) and *-e-li* (INV-1SG.SUBJ); see Zúñiga (2006: Ch. VII) for details. This, however, is unrelated to applicativization.

¹³ This is related to the conditions governing differential object marking mentioned in Section 2.2.

- (21) a. *Feyti ngürü leli-nie(-fi)-i tañi malle.*
 ART fox look.at-ASP-3.OBJ-IND[3] 3.PSR paternal.uncle
 ‘The fox was watching his paternal uncle.’ (based on Salas 2006: 274)
- b. *Fey elu-*(fi)-i chi pu trewa.*
 then give-3.OBJ-IND[3] ART PL dog
 ‘Then he gave [them] to the dogs.’ (Salas 2006: 262)

Both applicativized trivalent verbs (21a) and applicativized bivalent verbs (21b) require the 3rd-person primary object marker *-fi* to appear on the verb. This is illustrated with *-ñma* here, but is independent of the exact applicative used (22):

- (22) a. *Leli-ñma-*(fi)-n ñi ñawe.*
 look.at-APPL-3.OBJ-1SG.IND 3.PSR daughter.of.man
 ‘I looked at his daughter (with bad intentions).’ (Salas 2006: 120)
- b. *Tofkü-ñma-*(fi)-n.*
 spit-APPL-3.OBJ-1SG.IND
 ‘I spit at him/her.’ (cf. *tofkü-n* spit-1SG.IND ‘I spat’)

Applicativization is naturally connected to access to relativization, because attributive constructions are headed by core arguments only. In the following example, the head noun is the subject in (23a) and the secondary object in (23b); the latter is the most frequent kind of occurrence in narratives:

- (23) a. *Chi wentru küme-künü-tu-fi-lu chi domo*
 ART man be.good-leave-APPL-3.OBJ-PTCP ART woman
ka amutu-i.
 also go.away-IND[3]
 ‘The man who had cured the woman also went away.’ (Salas 2006: 265)
- b. *Xosé ñi ngilla-ñma-fiel-chi libru Xuan ñam-küle-i.*
 J. 3.PSR buy-APPL-NFIN-ATTR book J. get.lost-RES-IND[3]
 ‘The book which José bought from Juan is lost.’ (Smeets 2008: 354)

Applicativization does not seem connected to specific restrictions on the access to discourse-related operations like focalization, but more research is needed here.

5 Semantics

With *-tu* and *-ye*, the interpretation of the AppP normally relies on the marker and the semantics of the base predicate. With *-l* and *-ñma*, the exact reading depends on an interplay between the applicative marker, the specific semantics and syntactic valency

of the base predicate, and contextual features. (Zúñiga 2010a provides additional details of the *l-ñma* opposition from a semantic perspective.)

The semantic role of the AppP with valency-increasing *tu*-verbs is often predictable; such arguments are usually Stimuli of experiencer verbs (e.g., *nümu*- ‘smell [v1]’ > *nümu-tu*- ‘smell [v2]’), Goals of motion verbs (e.g., *nag*- ‘descend’ > *nag-tu*- ‘descend towards’), or Patients of change-of-state verbs (e.g., *pütre* ‘burn [v1]’ > *pütre-tu*- ‘burn [v2]’). When syntactically neutral but semantically relevant, some alternations involving *-tu* are otherwise transitivity-increasing, with *tu*-marked verbs denoting more intensity (e.g., *ngeyku*- ‘rock’ > *ngeyku-tu*- ‘rock strongly’) or more affectedness (e.g., *ñidüf*- ‘sew’ > *ñidüf-tu*- ‘mend’). Many verbs show semantic idiosyncrasies not clearly related to such effects.

Verbal *ye*-suffixation as illustrated in (24) introduces AppPs as motion Comitatives (a) or Topics of Speech/Thought (b). With denominal *ye*-verbs, the AppP expresses a social relationship (‘regard as N’, [24c]):

- (24) a. *Amu-ye-fi-n* *ñi* *wenüy*.
 go-APPL-3.OBJ-1SG.SBJ.IND 1SG.PSR friend
 ‘I went with my friend.’
 b. *Ngüma-ye-fi-n* *ñi* *ñawe*.
 weep-APPL-3.OBJ-1SG.SBJ.IND 1SG.PSR daughter.of.man
 ‘I wept for my daughter.’
 c. *Patron-ye-nge-n*.
 boss-VBLZ-PASS-1SG.SBJ.IND
 ‘I am considered the boss.’

Syntactically neutral *ye*- is rather unpredictable semantically, as are some instances of redirecting *ye*- (25) (data from Augusta 1916: 260):

- (25) a. *Wifül-nge-i* *mollfüñ*.
 spatter-PASS-IND[3] blood
 ‘They were spattered with blood.’
 b. *Wifül-ye-i* *ñi* *külen* *chi* *trewa*.
 spatter-APPL-IND[3] 3.PSR tail ART dog
 ‘The dog spatters (around with) its (wet) tail.’

All instances of *-l* or *-ñma* with trivalent base predicates seem to introduce a Concernee (or “External Possessor”), usually via a kinship or part-whole relation, as in (26). This holds not only with underived bases (26a) (except for *elu-ñma*- ‘allow’ in [16b]), but also with derived ones (26b). Although near-equivalent states of affairs can be conveyed via other constructions (viz. with NP-Internal Possessors as non-arguments), External-Possession applicatives are the preferred, idiomatic, mode of expression (also with those derived from bivalent derived bases, like [26c]):

- (26) a. *Elu-l-fi-n* *sañchu* *tañi* *wenüy* *tañi* *foṭüm*.
 give-APPL-3.OBJ-1SG.IND pig 3.PSR friend 1SG.PSR son.of.man
 ‘I gave my son’s friend a pig.’ (Golluscio 2010: 737)
- b. *Dewma-l-el-e-n-mew* *kiñe* *makuñ* *ñi* *ñuke*.
 make-APPL-APPL-INV-1SG.IND-3.OBJ one blanket 1SG.PSR mother
 ‘S/he made a blanket for my mother.’
- c. *Illku-tu-l-fi-n* *Xwan* *tañi* *foṭüm*.
 get.angry-APPL-APPL-3.OBJ-1SG.IND J. 3.PSR son.of.man
 ‘I scolded Juan’s son.’ (Golluscio 2010: 733)

By contrast, *-l* or *-ñma* that applicativize bivalent base predicates introduce a participant that can bear some of the other roles borne associated with the Ancient Greek and Latin extra-thematic dative. Verbs allowing both markers often show an opposition between motion towards or away from a referent when applicativized (27) (data from Salas 2006: 120):

- (27) a. *Ngilla-lel-fi-n* *Antonio* *ñi* *kawello*.
 buy-APPL-3.OBJ-1SG.IND A. 3.PSR horse
 ‘I bought Antonio’s horse for him.’ (i.e., from someone else)
- b. *Ngilla-ñma-fi-n* *Antonio* *ñi* *kawello*.
 buy-APPL-3.OBJ-1SG.IND A. 3.PSR horse
 ‘I bought Antonio’s horse from him.’

The opposition is conventionalized with some verbs, but it often leads to an interpretation in terms of benefaction and malefaction, even with motion verbs (28) (data from Augusta 1903: 75):

- (28) a. *Ye-l-fi-n* *ñi* *kuchillo*.
 carry-APPL-3.OBJ-1SG.IND 3.PSR knife
 ‘I brought him his knife (in order to help him).’
- b. *Ye-ñma-fi-n* *ñi* *kuchillo*.
 carry-APPL-3.OBJ-1SG.IND 3.PSR knife
 ‘I brought his knife away from/to him (in order to harm him).’

Other predicates show no such semantic opposition, for instance: *ruka*- ‘build a house’ > *ruka-lel*- ~ *ruka-ñma*- ‘build a house as protection for’; see also denominal *chadi-l*- ~ *chadi-ñma*- ‘salt (v2)’.

Interestingly enough, the AppP of *ñma*-marked predicates is sometimes interpreted as broadly affected irrespective of the base verb’s syntactic valency (albeit without granting the AppP subject status; see § 6.2.1). Many instances of monovalent base predicates introduce such an argument when applicativized with *-ñma*; quite often, the

actions performed are customary, as with labile *pütu-* ‘drink’ in (29), or even ritual, as with monovalent *ngilla-tu-* ‘perform rogations’ in (30):

- (29) a. *Pichi pütu-rke-i.*
 a.little drink-REP-IND[3]
 ‘S/he drank a little, I am told.’ (Smeets 2008: 465)
- b. *Ka pichi pütu-ñma-pu-fi-i-n.*
 and a.little drink-APPL-TRANS-3.OBJ-IND-1-PL
 ‘And there we (PL) drank to him (the deceased).’ (Smeets 2008: 277)
- (30) a. *Feychi che itro rumel ngillatu-ke-i*
 ART person upright always perform.rogation-HAB-IND[3]
kiñe fūta kura mew.
 one big stone POSTP
 ‘This Mapuche always performs a rogation on a large boulder.’ (Guevara 1911: 110)
- b. *Ngillatu-ñma-nge-ke-la-n.*
 perform.rogation-APPL-PASS-HAB-NEG-1SG.IND
 ‘No rogations are performed in my honor.’ (Augusta 1916: 62)

Some applicativized verbs have AppPs of unpredictable semantics, especially with *-ñma*. Cases in point include monovalent *lladkü-* ‘grow sad, upset’; *lladkü-tu-* means, as expected, ‘get upset with, scold’ but *lladkü-ñma-* means ‘offer one’s condolences’. A similar example is bivalent *dapill-* ‘clean (potato/legume plant before earthing it up)’; *dapill-ma-* means ‘earth up (potato/legume plant)’. Monovalent *anü-* ‘sit down’ can take *-ñma* to introduce a locative argument (see Example [10a]), but this derivation also has a different, probably metaphorically related, reading:

- (31) *Anü-ñma-e-i-mew* *wekufü.*
 sit.down-APPL-INV-IND[3]-3.OBJ demon
 ‘S/he was possessed by a demon.’

It is hard to find Mapudungun verbs that occur with all four applicatives; moreover, even in those cases where a verb takes three of them, the potential marker-specific semantic differences often appear neutralized. Examples showing some semantic opposition include monovalent *tofkü-* ‘spit’ and bivalent *ütrüf-* ‘throw’. The former invariably adds the person spat at/on when applicativized; *-l* and *-ñma* denote the familiar benefactive and malefactive meanings, and *-tu* encodes an additional, unpredictable, nuance (‘with contempt’). Similarly, the latter introduces a Goal/Source with *-l* and *-ñma* and a Goal with added meaning with *-tu* (‘in order to scare/hurt him/her’).

The semantic roles borne by the AppP of different ACs are summarized in Table 5 below.

Table 5: Semantics roles of AppPs in Mapudungun.

<i>-tu</i>	Stimulus, Motion Goal, Change-of-state Patient
<i>-ye</i>	Motion Comitative, Topic of Speech/Thought
<i>-l</i>	affected participant; implied Motion Goal, Beneficiary, Concernee
<i>-ñma</i>	affected participant; implied Motion Source, Maleficiary, Concernee

There are no systematic explorations of applicativization in the context of reflexives and reciprocals. Reflexive *-w* appears to usually work compositionally with *-tu*, does not normally co-occur with *-ñma* (see Footnote 7), and often shows subtle meaning idiosyncrasies when co-occurring with *-l*. Consider the pairs in (32); the reflexive has the expected yield with *-tu* in (a–b), is a detransivizer or has the expected yield with *-ñma* (c–d), and shows unpredictable yields with *-l* (e–f):¹⁴

- (32) a. *ayfiñ*- ‘become decorated’ > *ayfiñ-tu*- ‘decorate’ > *ayfiñ-tu-w*- ‘decorate oneself’
 b. *tün*- ‘look for lice’ > *tün-tu*- ‘look for lice on (sbdy.)’ > *tün-tu-w*- ‘look for lice on oneself’
 c. *ngilla-tu*- ‘conduct rogations (v1); ask (v2)’ > *ngilla-tu-ñma*- ‘conduct rogations for (v2)’
 > *ngilla-tu-ñma-w*- ‘conduct rogations (v1)’
 d. *wütrü*- ‘water, irrigate’ > *wütrü-ñma*- ‘have (liquid) spilled on one; spill (liquid) on’
 > *wütrü-ñma-w*- ‘spill (liquids) on each other’
 e. *düngu*- ‘speak’ > *düngu-l*- ‘make speak, read, play (CAUS)’ > *düngu-l-w*- ‘speak to oneself’
 f. *üwe*- ‘become solitary/empty’ > *üwe-l*- ‘take to a deserted area’ (APPL)
 > *üwe-l-w*- ‘get lost, lose one’s way’

The reflexive freely occurs with denominal *-ye*, but I have not found robust examples with deverbal *-ye*. An interesting example of deadjectival *-ye* is found with *afma* ‘faithful, loyal’: labile *afma-tu*- means ‘be amazed; admire’, bivalent *afma-ye*- means ‘be careful of/with’, and monovalent *afma-ye-w*- means ‘incur expenses’ (Augusta 1916: 3).

¹⁴ The latter is probably related to a more general pattern involving *-l* (whether causative or applicative), namely its tendency to combine with some other morphemes. A particularly frequent instance of this is found with the bimorphemic deadjectival verbalizer *-l-ka* (e.g., *pichi*- ‘be little’ > *pichi-l*- ‘give a little piece’ > *pichi-l-ka*- ‘make smaller, abbreviate’, Augusta 1916: 178; see also Golluscio 2007: 223).

6 Lookalikes

6.1 Syntactic lookalikes

Mapudungun constructions whose syntactic make-up conforms to the definition of ACs but whose morphology does not are either coded and symmetrical (suppletivism) or uncoded and symmetrical (flexivalency). Suppletivism is easy to find with causatives; with applicatives, it seems to be found only with bivalent-trivalent pairs (e.g., *wül-* ‘give [v2]’ vs. *elu-* ‘give [v3]’), not with monovalent-bivalent pairs. Flexivalency is not difficult to find with v1-v2 pairs (e.g., *küdaw-* ‘work [on]’) and also occurs with v2-v3 pairs (e.g., *pi-* ‘say, tell’).

6.2 Morphological lookalikes

6.2.1 Non-alternating non-agentive nucleatives

With avalent predicates and a subclass of non-agentive monovalent predicates, *ñma*-derivation causes non-agentive nucleativization, but invariably of the SUBJECTIVE kind; this phenomenon seems to be unrelated to the existence of symmetrical voices, and quite rare (Zúñiga 2020). As with applicatives (see § 4.1), such derived predicates head not only clauses of a type available to underived ones (IIa₁, NAN Type D) but also another clause type (IIIC, NAN Type E); the latter is like the passive of a three-argument clause mentioned in Section 2.3 (see Example [3b]). The distinction between Operations D-E on the one hand and Applicatives A-C surveyed in Section 4 on the other has a semantic correlate: predicate classes I and IIa₁ have no agentive argument. This is schematically summarized in Table 6 below.

Table 6: Selected transitivizing Mapudungun *ñma*-nucleatives.

base predicate/clause			derived predicate/clause	
D	I	—	IIa ₁	SBJ
E	IIa ₁	SBJ	IIIC	SBJ + SOBJ

The examples in (33) illustrate this phenomenon. In (a), the marker increases the valency of avalent *maw(ün)*- ‘rain’ so as to make it monovalent (Type D); the same happens with other meteorological predicates, as well as with astronomical predicates (see [35a] below). In (b), the marker increases the valency of non-agentive monovalent *nag-* ‘descend’ in the presence of an inanimate companion argument, making the predicate bivalent (Type E); the same happens with other comparable verbs and nouns:

- (33) a. *Mawün-i* — *Mawün-ma-n*.
rain-IND[3] rain-NAN-1SG.IND
‘It rained.’ ‘It rained on me / I got rained on.’
- b. *Nag-i* *mawün* — *Nag-ma-n* *mawün*.
descend-IND[3] rain descend-NAN-1SG.IND rain
‘Rain fell.’ ‘Rain fell on me.’

Unsurprisingly, the 1st-person new argument is the subject, rather than the primary object, in the derived construction. Two features of such constructions are unexpected, however. First, the new argument being the subject is not due to the person-related rules governing morphosyntactic inversion. In (a), those rules cannot apply at all, since there is only one argument on the right-hand side; 3rd-person arguments are also installed as subjects in those instances, for example: *mawünmai* ‘s/he got rained on’, *mawünmayengu* ‘they (DU) got rained on’, and *nagmayengün mawün* ‘rain fell on them (PL)’. (Such examples are extremely rare in published texts but unproblematic in elicitation.) Second, while in (a) it may seem natural that the only semantic argument appears as subjective syntactic argument in the derived construction, in (b) one could have expected the derived bivalent predicate *nag-ma-* to be morphologically bipersonal, that is, to have inverse morphology (e.g., **nag-ma-e-n-mew*), or at least passive morphology (e.g., *nag-ma-nge-n*).

In fact, to judge from the relevant dictionary entries in Valdivia (1606), passive morphology was found with such forms in earlier stages of the history of Mapudungun. Consider (34), an instance of *-ñma* deriving a bivalent verb from a noun, where passive marking is apparently still optional:

- (34) *Witran-ma(-nge)-n*.
visitor-VBLZ-PASS-1SG.IND
‘I’ve got a visitor.’ (Smeets 2008: 303)

In the original form of this kind of *ñma*-nucleativization, in order to accommodate the additional (usually human) argument in the absence of an animate Agent, the clause had to be overtly passivized. This constraint was later relaxed, and nowadays such verbs no longer require the passivizing morpheme *-nge*, but the AppP is the subject nonetheless. In (33), *-ñma* resembles a Philippine-like OBLIGATORY APPLICATIVE-CUM-PASSIVE that simultaneously introduces a new argument to the clause and grants it subject status.

Regarding the semantics of such *ñma*-operators applied to low-transitivity Agentless base predicates like those in (35), the new argument appears to be a participant broadly construed as affected. It is not systematically interpreted in terms of perception, motion, possession, or even benefaction/malefaction:

- (35) a. *Kĩnekemew pun-ma-i-i-n.*
 sometimes night-NAN-IND-1-PL
 ‘Sometimes night fell on us.’ (Smeets 2008: 302)
- b. *Iñche aku-ñma-n kiñe kũme dungu.*
 1SG arrive-NAN-1SG.IND one good message
 ‘I received a nice message.’ (Smeets 2008: 379)

Some few verbs seem to optionally or even obligatorily take *-l* instead of *-ñma* in Type-E operations, but more research is needed here. The most robust example of this I have found is *la-* ‘die’ (36), which expectedly takes *-ũñma* when the base verb is an (irregular) *m*-causative (36a) but appears as *la-yel-* when there is no causativization (36b), without any difference regarding the new argument’s semantic role:

- (36) a. *Langũm-ũñma-nge-n ñi fotũm.*
 kill-APPL-PASS-1SG.IND 1SG.PSR son.of.man
 ‘They killed my son on me.’ (Salas 2006: 123)
- b. *La-yel-n tañi kũme chaw.*
 die-NAN-1SG.IND 1SG.PSR good father
 ‘My good father has died on me.’ (Augusta 2016: 111)

6.2.2 Syntax-neutral markers

Constructions whose syntax is identical with derived and underived verbs can be found in the language, especially with the markers *-tu* and *-ye*. More research is needed here, but the available facts suggest that the syntactically neutral markers are not focalization devices; instead, they seem to be either semantic explicators or simply semantic differentiators. Lists of verbs that make syntactically neutral use of the applicative markers can be found in Zúñiga (2009a).

As mentioned in Section 3, *tu*-suffixation is syntactically neutral with a considerable number of verbs, either with an unpredictable semantic effect (e.g., *allkü-* ‘hear [v1/v2]’ > *allkü-tu-* ‘listen [to]’) or, somewhat less frequently, without any recognizable semantic effect (e.g., *illam-* ~ *illam-tu-* ‘despise’). With other verbs, however, it is valency-decreasing, that is, *-tu* can also reflexivize a verb by suppressing the expression of its non-agentive argument (*ñikũm-* ‘protect from the wind’ > *ñikũm-tu-* ‘protect oneself from the wind’). Antipassivization is found only with few verbs that do not seem to belong to any particular formal or semantic class, some of which are actually labile (e.g., *ira-* ‘split [v2]’ > *ira-tu-* ‘split [wood] [v2/v1]’). Labile *nũtram-* ‘tell, narrate’ is a case in point; compare the examples given in (11) above with the ones in (37) below. Note that even the *tu*-marked verb is labile:

- (37) *Nütram-tu-n.* / *Nütram-tu-fi-n.*
 tell-ANTIP-1SG.IND tell-ANTIP-3.OBJ-1SG.IND
 ‘I talked.’ ‘I talked with him/her/them.’

The exact semantic role of the non-Agent is rather varied with these verbs, usually showing some idiosyncrasy, for instance: *lawen-* ‘use as medicine (v2)’ > *lawen-tu-* ‘take medicine (v1); treat/heal (v2)’ vis-à-vis *kafkü-* ‘whisper to’ > *kafkü-tu-* ‘whisper (v1)’.

Ye-suffixation can also be syntax-neutral, either with (e.g., *traf-* ‘meet [v2]’ > *traf-ye-* ‘bump into on the road’) or without a semantic effect (e.g., *duam-* ~ *duam-ye-* ‘need’).

Syntax-neutral *ñma*-suffixation is rather rare (see [10b] for an example), but syntax-neutral *-l* seems to occur less seldom. The following examples with *wül-* ‘give away, hand’ from Augusta (1916: 256) show valency-increasing *-l* and *-ñma* (38) alongside syntax-neutral *-l* (39); the particular reading ‘give blows, hit’ seems to require *-l* for most speakers:

- (38) a. *Fey wül-el-a-e-n-mew* *ñi makuñ.*
 DEM give.away-APPL-FUT-INV-1SG.IND-3.OBJ 1SR.PSR blanket
 ‘S/he will sell my blanket for me, instead of me.’
 b. *Wül-ma-e-n-mew* *ñi ofisha.*
 give.away-APPL-INV-1SG.IND-3.OBJ 1SG.PSR sheep
 ‘S/he sold my sheep (against my will).’
- (39) *Wül-el-fi-i kura mew.*
 give.away-L-3.OBJ-IND[3] stone POSTP
 ‘S/he hit him/her with a stone.’

6.2.3 Applicative deponents

Applicative deponents or *applicativa tantum*—i.e., verbs that appear with one of the applicative markers but do not stand in opposition to an unmarked verb of the same root—are common in Mapudungun only as denominals. Some verbs with fossilized markers seem to have shown productive oppositions until relatively recently; for instance, present-day *añel-tu-* ‘threaten’ used to occur alongside *añel-* a century ago, apparently without any difference in meaning (Augusta 1916: 10).¹⁵ Denominal verbs with *-tu* and *-ye* are numerous (e.g., *wekufü* ‘devil’ > *wekufü-tu-* ‘bedevil, bewitch’ and *patron* ‘boss’ > *patron-ye-* ‘consider [sbdy.] one’s boss’); those with *-l* and *-ñma* are less frequent but not rare (e.g., *piwke* ‘heart’ > *piwke-l-* ‘put in the middle of’ and [34]).

¹⁵ The original root seems to have been *ane-* ~ *añe-*, and Erize (1960: 54) lists *ane-l-*, *ane-tu-* and *ane-l-tu-* as synonyms.

The effects of applicative-like marking are summarized in Table 7 below.

Table 7: Syntactic and semantic effects of selected Mapudungun markers.

	<i>-tu</i>	<i>-ye</i>	<i>-l</i>	<i>-ñma</i>
Valency-increasing:				
– denominal verbalization	✓	✓	✓	✓
– non-agentive nucleativization	✗	✗	(✗)	✓
Valency-decreasing:				
v2>v1(/v2)	✓	✗	✗	✗
Valency-neutral:				
– strictly neutral, semantic effect	✓	✓	some	some
– strictly neutral, no semantic effect	(✓)	✓	some	some

7 Conclusions

This chapter surveyed the applicative constructions attested in Mapudungun and other uses of applicative morphology. These can be characterized as follows:

Morphology

- Mapudungun does not have constructions that could be analyzed as applicative periphrases or analytical applicative constructions.
- The different subtypes of applicative constructions use one of four verbal suffixes occupying slots in the verbal template near the root, in close vicinity to other valency-changing markers. Combining two applicative markers in one verb complex is possible but subject to some restrictions.
- The applicative suffixes *-tu* and *-ye* do not show allomorphy. The allomorphy of *-l* and *-ñma* is conditioned phonologically and, albeit less importantly, lexically.
- All markers have homonyms and some (viz. *-tu* and *-l*) are arguably polysemous.

Syntax

- Mapudungun applicatives are P-applicatives. The new participant could appear in the base construction in some cases in principle, either as an optional adjunct or as a non-argumental Possessor.
- Depending on argument-realization rules unrelated to applicativization, the applied phrase may occur either as a primary object in actor-voice clauses, with direct verbs, or as a subject in undergoer-voice clauses, with inverse verbs. With

verbs belonging to two clearly delimited valency classes, *ñima*-derivation installs a new participant in a non-P role as the subject, and is therefore a lookalike.

- Mapudungun applicatives differ regarding how they interact with valency classes. *Ye*-verbs are bivalent (whether via valency increase from a monovalent verb or via valency redirecting from a bivalent verb). *Tu*-verbs add a core argument, either making a monovalent verb bivalent or making a bivalent verb trivalent. The markers *-l* and *-ñima* have the same effect as *-tu*, but also apply to base predicates belonging to otherwise excluded valency classes, namely trivalent verbs (*-l*) or aivalent verbs (*-ñima*).
- The use of Mapudungun applicatives is not conditioned by the limited access of adjuncts to some structural operations. Rather, it is related either to the impossibility to clearly express some semantic roles not related to possession otherwise than with this operation (in the obligatory cases), or to an idiomaticity stipulation that requires kinship- or part-whole-based Possessors of patientive arguments to be expressed as indirectly affected and therefore as applied core arguments (in the optional cases).
- In applicative constructions, the applied phrase is an overt/covert NP showing all the syntactic properties that characterize primary objects or subjects in non-applicative constructions. When 3rd-person primary objects, they seem to always, or almost always, co-occur with the verbal suffix *-fi* on direct verbs (unlike comparable objects in non-applicative constructions, which trigger the marking much less often, taking into account considerations of animacy, person, and relative topicality). There is no other difference between applicative constructions and constructions of underived verbs involving the same number of objects, but one clause type occurs only as applicative construction (viz. four-argument clauses).
- There are no particular restrictions on the combination of applicatives with causatives and passives, and verb-noun compounds can take applicative marking as well, apparently as long as the resulting word is not too difficult to parse. Reflexives and reciprocals of applicatives need to be explored in more detail; some markers behave as expected and others show syntactic and semantic idiosyncrasies. Verb forms including more than two occurrences of the applicative marker, applicativized verb-noun compounds, and applicative constructions including more than two new argument phrases seem to be ruled out.

Semantics

- All applicative suffixes are semantically underspecified markers that license several semantic roles.
- In the case of *-tu* and *-ye*, the interpretation of the new argument usually depends on the marker itself and the semantics of the base predicate. With *-tu*, the new participant is typically either the Stimulus of experiencer verbs, the Goal of motion

verbs, or the Patient of change-of-state verbs. With *-ye*, it is a motion Comitative or the Topic of Speech/Thought.

- With *-l* and *-ñma*, the exact interpretation of the new argument depends on the marker itself, the syntax and semantics of the base predicate, and contextual features. When applicativized, trivalent predicates accommodate a Concernee (“External Possessor”). Monovalent predicates accommodate a participant broadly construed as affected, with lexical semantics of the elements in the clause and context in charge of the specifics. Bivalent predicates show lexically conditioned variation: some verbs use the markers to encode approach and separation, respectively; others encode benefaction and malefaction; yet others neutralize the distinction in favor of broadly construed affectedness or Concernee-Concern relationship and either take any marker interchangeably or lexically requires one of them irrespective of meaning. Several *ñma*-applicatives license semantically unpredictable applied phrases.
- Mapudungun applicative constructions seem to have no pragmatic or discursive implications.

Lookalikes

- Valency-neutral instances of *tu*- and *ye*-marking—either with or without a difference in semantics—are numerous; strict syntactic neutrality is exceptional with *-l* and *-ñma*.
- Non-applicative *tu*-marking is frequent and can, on a lexical basis, antipassivize, telicize, or form a reversionary/repetitive; the latter is possibly related to one of the iterative stem formations. With some verbs, *tu*-marking denotes higher intensity or higher Patient affectedness. Non-applicative *ye*-marking is relatively infrequent and appears to be obsolescent; it can encode distributivity/multiplicity of participants and, possibly, completion or duration.
- With *-l* and *-ñma*, three non-applicative functions are prominent. First, *-l* is also a (high-control) causative that increases the valency of (mostly) monovalent predicates. Second, a small closed class of ambiguous verbal/adverbial roots expressing spatial, temporal, and manner notions can form “relational” adverbs with *-ñma*. Third, *ñma*-derivation of avalent and some non-agentive monovalent verbs is transitivizing/valency-increasing: it installs the new participant (which is interpreted as broadly affected) as the subject and is therefore reminiscent of a combined applicative-cum-passive operation.
- Lexicalized applicatives with verbal roots do not seem to be particularly numerous. By contrast, the use of *-tu* and *-ye* to verbalize nouns is an important lexicon-expanding device in the language.

Abbreviations

AC	applicative construction
AN	agentive nucleativizer
ANTIP	antipassive
APPL	applicative
ART	article
ASP	aspect
ATTR	attributive
AV	actor voice
BC	base construction
CAUS	causative
DEM	demonstrative
FUT	future
HAB	habitual
IMP	imperative
IND	indicative
INV	inverse
NAN	non-agentive nucleativizer
NEG	negative
NFIN	nonfinite
NI	nominal incorporation
OBJ	object
OOBJ	oblique object
PASS	passive
PL	plural
POBJ	primary object
POSTP	postposition
PRO	pronoun
PSR	possessor
PTCP	participle
REFL	reflexive
REP	reportative
RES	resultative
SBJ	subject
SG	singular
SOBJ	secondary object
SUBJ	subjunctive
TRANS	translocative
UV	undergoer voice
VBLZ	verbalizer
v0, v1, v2 . . .	syntactic valency of predicates
x→y	x acts on y

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8 Applicative constructions and non-applicative uses of applicative morphology in Tswana (Bantu)

Abstract: This chapter provides a detailed description of applicative constructions in Tswana, and of constructions involving the same morphological marking as applicative constructions, although they do not meet the definition of applicative constructions. Leaving aside an applicative-like use of the causative suffix, Tswana can be analyzed as having a single verbal suffix involved in the marking of applicative constructions. In P-applicative constructions, this suffix licenses applied objects expressing various semantic roles, such as beneficiary, whose only common feature is that they cannot be expressed as oblique phrases in clauses projected by the non-applicative form of the same verb. In X-applicative constructions, the same suffix licenses locative expressions that show no evidence of a change in their morphosyntactic status but express roles other than those they would express with the non-applicative form of the same verb. The same suffix is also found in a construction in which it marks the promotion of instrumental adjuncts to subject role. It also has several uses not related to valency operations: focalization of locative adjuncts, expression of habituality of action at some place and expression of intensity of action. Finally, lexicalized applicatives are common in Tswana.

1 Introduction

This chapter describes applicative constructions and non-applicative uses of applicative morphology in Tswana (aka Setswana, ISO 639-3 tsn, Glottolog tswa 1253), a southern Bantu language spoken in Botswana and South Africa by more than 6 million speakers, whose closest relatives are Pedi and Southern Sotho.¹

Tswana has very productive applicative constructions marked by a verbal suffix *-el*, reflex of the Proto-Bantu reconstructed applicative suffix **-rd*. However, the constructions in question do not meet some of the narrow definitions of applicativization

1 In Botswana, ethnic Batswana constitute 80% of the population, estimated at 2,3 million (2020). In South Africa, Tswana is dominant in the Northwest Province and in some districts of the Free State Province, and the number of its speakers is estimated at 5 million. Tswana, Pedi and Southern Sotho are so close to each other that, from a strictly linguistic point of view, they should be considered as three varieties of a single language. Pedi is commonly designated as Northern Sotho, but this term is ambiguous, since it is also used with reference to lects (Lobedu, Tswapong, etc.) that, linguistically, are better considered languages distinct from Sotho-Tswana proper.

that may be found in the literature, and can only be identified as applicative if the latter term is taken in the broad sense suggested in the position paper. Moreover, the suffix *-el* is also found in constructions involving valency operations that cannot be viewed as varieties of applicativization, even if this term is taken in a very broad sense, and in constructions in which its function is not related to valency.²

The chapter is structured as follows. Section 2 provides the necessary information about the basics of Tswana morphosyntax. Section 3 is a general introduction to the various types of applicative constructions that can be found in Tswana, and a general presentation of the applicative marker *-el*. Section 4 discusses the applicative constructions in which the applied phrase fulfills the syntactic role of object. Section 5 discusses the applicative constructions in which the applied phrase cannot be analyzed as an object. Section 6 is about a valency-related use of *-el* which, however, does not meet the definition of applicativization. Section 7 is devoted to the uses of *-el* that are not related to valency operations. Section 8 is about lexicalized applicatives. Section 9 discusses the question of whether some uses of the causative marker *-is* could be analyzed as applicative-like. Section 10 summarizes the main conclusions.

2 The basics of Tswana morphosyntax

Typologically, Tswana is in almost every respect a typical Bantu language. For an overall presentation of Tswana, see Cole's (1955) reference grammar or Creissels' (2003) sketch grammar.

2.1 Nouns, noun phrases, and locatives

Tswana common nouns consist of a stem and an obligatory prefix expressing number, and number morphology is closely related to the division of nominal lexemes into genders. The gender system of Tswana relies on an inventory of 12 agreement patterns, traditionally referred to as "classes", each of them triggered by a particular subset of noun forms. As a rule, noun forms that trigger the same agreement pattern also share the same prefix, and vice-versa, but this correlation is far from perfect. Some classes

² Throughout this chapter, Tswana words and sentences are given in broad phonetic transcription. The reason for not using current Tswana orthography is that it is quite misleading in linguistic analysis. The point is that current orthography distinguishes only 5 vowels and does not note tones at all, whereas Tswana has 9 vowel phonemes, and tones are crucial for morphological analyses. Moreover, many morphemes that are unquestionably prefixes (in particular, subject indexes and object indexes) are written as if they were separate words. The tones indicated in this transcription are surface tones (which may be very different from underlying tones, given the complexity of tone realization rules), and the lengthening that affects the penultimate syllable of words in immediate prepausal position is noted explicitly.

(in the sense of agreement patterns) are associated with sets of singular noun forms, others with sets of plural forms, and nominal lexemes can be grouped into genders on the basis of correspondences such as *mò-sádí* (cl. 1) ‘woman’ / *bà-sádí* (cl. 2) ‘women’: *mò-sádí* ‘woman’ triggers class 1 agreement, the corresponding plural *bà-sádí* ‘women’ triggers class 2 agreement, and consequently, ‘woman’ as a nominal lexeme belongs to a gender that can be labeled gender 1–2.

In Tswana noun phrases, noun dependents follow their head, and express gender-number agreement with their head.

The attachment of a locative marker to the first word of noun phrases converts them into locative phrases. Locatives optionally combine with one of the locative prepositions *kó* (relative remoteness), *fá* (relative proximity), or *mó* (interiority, contact). Neither locative affixes nor locative prepositions specify the distinction between static location, source of motion, or direction of motion. In contrast to the situation observed in Central Bantu languages, locatives do not have access to the subject function.

2.2 Clause structure

The basic constituent order is *Subject-Verb-Objects-Obliques*. There is no flagging of either subjects or objects, but in independent assertive or interrogative clauses, the verb includes an obligatory subject index representing the single core argument of intransitive verbs and the agent of prototypical transitive verbs (1a). Objects are not obligatorily indexed, but topical objects whose precise description is considered superfluous by the speaker are represented by object indexes inserted between the subject index and the verb stem (1b). Objects can be converted into subjects of passive constructions (1c).³

- (1) a. *ɲwàná ú-tʰùb-ìl-é mà:í.*
 child(1) sI:cl1-break-PRF-FV eggs(6)
 ‘The child broke the eggs.’
 b. *ú-à-tʰùb-ì:l-è.*
 sI:cl1-oI:cl6-break-PRF-FV
 ‘He broke them.’
 c. *màí á-tʰùb-ìl-w-è kí ɲwà:ná.*
 eggs(6) sI:cl1-break-PRF-PASS-FV by child(1)
 ‘The eggs were broken by the child.’

³ Since the details of nominal morphology are irrelevant in this chapter, in the Tswana examples, noun forms are not segmented, and are just given with a translation reflecting their number value and the indication of the agreement pattern they trigger.

Tswana is an unproblematic “accusative” language in which the single core argument of intransitive verbs and the agent of prototypical transitive verbs not only share the same coding characteristics, but also consistently align with respect to their behavior in operations such as focalization, questioning, equi-NP deletion, raising, or control. Consequently, there is no inconvenience in discussing Tswana morphosyntax in terms of subjects and objects as grammatical relations identified in Tswana by their indexation properties, rather than in terms of A, S and P.

Tswana does not have a grammatical relation “indirect object” in the sense of a grammatical relation distinct from the grammatical relation “direct object”, whose semantic prototype would be the recipient of verbs of giving, but has very productive multiple-object constructions (used in particular with the verbs of giving) in which the linear order of object NPs is rigidly determined by the Animacy Hierarchy (2a), semantic roles being taken into consideration only if two objects are of equal rank according to the Animacy Hierarchy (for example, beneficiaries precede recipients or causees, causees precede patients, etc.). Each object can be represented by an object index, and all the objects can be indexed simultaneously in the verb form. The order of object indexes is the mirror image of the order of their conominals (2b). In multiple-object constructions, each object can be converted into the subject of a passive construction in which the other objects are maintained in object role (2c–d), and reflexive derivation may encode coreference between the subject and any of the objects (2e–f).

- (2) a. *ɲwàná 'ú-f-íl-é 'kátsí dì:dʒó.*
 child(1) sI:cl1-give-PRF-FV cat(9) food(10)
 ‘The child gave food to the cat.’
- b. *ɲwàná 'ú-dí-ì-f-ì:l-è.*
 child(1) sI:cl1-oI:cl10-oI:cl9-give-PRF-FV
 ‘The child gave it (the food) to it (the cat).’
- c. *kátsí 'í-f-íl-w-é dì:dʒó.*
 cat(9) sI:cl9-give-PRF-FV food(10)
 ‘The cat was given food.’
- d. *dìdʒó 'dí-f-íl-w-é 'kâ:tsì.*
 food(10) sI:cl10-give-PRF-FV cat(9)
 ‘The food was given to the cat.’
- e. *bàtʰù bá-ì-pʰ-íl-é nákwò j-á-χù-í-ákánpê:ts-à.*
 people(2) sI:cl2-REFL-give-PRF-FV time(9) cl9-GEN-INF-oI:cl9-think.about-FV
 ‘The people took the time (lit. gave themselves the time) to think about it.’
- f. *bàtʰù bá-ì-pʰ-íl-é nâ:χà.*
 people(2) sI:cl2-REFL-give-PRF-FV bush(9)
 ‘The people ran away (lit. ‘gave themselves to the bush).’

As illustrated in (3), valency-increasing derivations may create derived verbs whose coding frame is a two- or even three-object construction.

- (3) a. *lòsía 'lú-nú-l-é má:fi.*
 baby(11) sI:cl11-drink-PRF-FV milk(6)
 'The baby drank milk.'
- b. *kì-nú-s-íts-é lòsía má:fi.*
 sI:1SG-drink-CAUS-PRF-FV baby(11) milk(6)
 'I made the baby drink milk.'
- c. *kì-nú-s-éd-íts-é dímp^hó lòsía má:fi.*
 sI:1SG-drink-CAUS-APPL-PRF-FV Dimpho(1) baby(11) milk(6)
 'I made the baby drink milk for Dimpho.'
- d. *kì-á-lú-mò-nú-s-éd-î:ts-è.*
 sI:1SG-oI:cl6-oI:cl11-oIcl1-drink-CAUS-APPL-PRF-FV
 'I made it drink it for her.'

Combinations of valency-changing derivations resulting in constructions with less than three objects are freely allowed. By contrast, those that would result in four-object constructions are completely ruled out, and there are also apparently arbitrary restrictions with three-object constructions. For example, it is difficult to explain why *fá* 'give' lends itself to applicative derivation, but not to causative derivation.

On the use of prepositions to mark various semantic types of obliques, see Creissels (2013). For a general presentation of valency-changing mechanisms, see Creissels (2002).

2.3 Verb morphology

A Tswana verb form consists of a ROOT (irreducible lexical element), an obligatory suffix (the FINAL VOWEL, or simply FINAL), and a variable number of other affixes whose presence depends on a variety of factors, each affix having a fixed position in the template. The root may be immediately followed by derivational suffixes that modify its meaning without altering its valency. Together with the root they constitute the EXTENDED ROOT.⁴

Starting from the extended root as the zero point, the order in which the affixes appear can be described as a sequence of positions numbered from -4 (the leftmost possible position, before subject indexes) to +5 (the rightmost possible position, after the so-called final vowel). Some of the positions may host up to three successive affixes of the same category. Given the topic of this chapter, it is sufficient to indicate the positions in which valency operators can be found:

- The reflexive marker (or middle voice marker) *í* occupies position -1 (immediately before the root), which is also the position occupied by object indexes.

⁴ For a more detailed account of Tswana verb morphology, see Creissels et al. (1997) and Creissels (2006, 2017).

- Causative (*i*s or *J*,⁵ applicative *ɛl*, anticausative *ɛχ*, *al*, *afal*, *aχal*, *εσεχ*, or *Jeχ*, and reciprocal *an* occupy position +1 (immediately after the extended root).
- The passive marker (*i*)w occupies position +3 (immediately before the final vowel).

Position –1 may host up to three successive affixes (three object indexes, or the reflexive marker plus two object indexes), and the same applies to position +1.

3 Introductory remarks on Tswana applicatives

3.1 Tswana applicative constructions and the definition of applicativization

Applicative constructions are sometimes defined as derived constructions in which a participant encoded as an oblique in the base construction is encoded as a direct object (or as P, depending on the theoretical framework). According to this definition, Tswana simply doesn't have applicative constructions, since in all the valency-related uses of the applicative marker *-ɛl*, the phrases it licenses refer to a participant that cannot be encoded at all in a monoverbal construction involving the non-derived form of the verb.

All the applicative constructions found in Tswana are OBLIGATORY APPLICATIVES whose use is just conditioned by the fact that they constitute the only available option for the encoding of a given semantic role in the construction of a given verb, as opposed to optional applicatives whose use may be motivated by information structure or restrictions on the access of obliques to operations such as focalization or relativization.

For example, none of the Tswana prepositions can assign the role of beneficiary to its complement, and in contrast to languages such as Eton (Bantu; Van de Velde 2008) or Jóola Fóoñi (Atlantic; Creissels and Voisin, this volume), beneficiaries cannot be encoded as objects without using a special form of the verb. In Tswana, the role of beneficiary expressed in (4b) by the applied object *kítsó* cannot be expressed within the frame of a monoverbal construction whose nucleus would be *-bééká* in its underived form.

- (4) a. *kì-tlàà-béék-á* *màitsìbò:á.*
 sI:1SG-FUT-work-FV evening(6)
 'I'll work this evening.'
- b. *kì-tlàà-béék-él-à* *kítsó* *màitsìbò:á.*
 sI:1SG-FUT-work-APPL-FV Kitso(1) evening(6)
 'I'll work for Kitso this evening.'

⁵ *J* is an abstract morphological element that can be posited in order to account for consonant alternations analyzable as originating historically from a phonological process of palatalization.

According to a less restrictive definition of applicatives, which is also found in the literature, an applicative construction is a construction in which a derived verb form assigns the syntactic role of direct object (or P) to a noun phrase (the APPLIED OBJECT) referring to a non-core participant (i.e., to a participant in the event that cannot be coded as a core syntactic term in the construction of the base verb). Some of the constructions discussed in this chapter (for example the construction illustrated in (4b) above) meet this definition, which doesn't put any condition about the possibility of expressing the semantic role expressed by the applied object in clauses whose nucleus is the underived form of the same verb.

However, not all the constructions discussed in this chapter as applicative constructions meet the definition of applicative constructions as constructions including an applied object. Some of them only meet a broader definition such as that put forward in the position paper, encompassing any type of construction in which a derived verb form assigns a grammatical relation OTHER THAN SUBJECT to an NP (the APPLIED PHRASE) representing a non-core participant that could not be coded in the same way (or could not be coded at all) in the construction of the base verb.

Another important property of the constructions analyzed in this chapter is that they may involve applied phrases referring to essential participants in the event denoted by the verb. Such a possibility is left open by the definition put forward in the position paper and adopted in this chapter, but is explicitly excluded by some of the more restrictive definitions of applicativization that can be found in the literature. However, Tswana is typically a language whose description would be considerably (and unnecessarily) complicated if a definition of applicativization excluding applied phrases representing essential participants were adopted.

3.2 The applicative marker *-el*

All the Tswana constructions that meet the definition of applicative constructions adopted in this chapter involve a verbal suffix whose underlying form can be posited as *-el*. Like all the formatives that constitute the verb stem with the exception of the verb root, it is underlyingly toneless, and its tone varies depending on tone spreading rules whose input is the tone of the root and the tone patterns associated to each individual TAM-polarity form. Depending on the adjacent formatives, *-el* may undergo regular morphophonological processes giving rise to the following allomorphs: *-el* (5a), *-ed* (5b), or *-ets* (5c).⁶

⁶ The vowel lengthening observed in (5a), (5c), and (6) is due to the general rule of prepausal lengthening mentioned in Footnote 2 above.

- (5) a. *χà-kí-bà-bérék-ê:l-i.*
 NEG-sI:1SG-oI:cl2-FUT-work-APPL-FV
 ‘I do not work for them.’
- b. *kì-bíl-éd-íts-é bàná ḡâ:kà.*
 sI:1SG-call-APPL-PRF-FV children(2) doctor(9)
 ‘I’ve called the doctor for the children.’
- c. *kì-tlàà-bá-χò-bérék-is-ê:ts-à.*
 sI:1SG-FUT-oI:cl2-oI:2SG-work-CAUS-APPL-FV
 ‘I will make them work for you.’

Moreover, depending on the context, *-ets* may be not only an allomorph of *-el*, as in (5c), but also the result of the fusion of *-el* with the perfect marker *J*,⁷ as in (6).

- (6) *kì-bá-bérék-ê:ts-ì.*
 sI:1SG-oI:cl2-work-APPL-PRF-FV
 ‘I’ve worked for them.’

As illustrated by example (7), Tswana has double-applicative constructions with two successive occurrences of *-el* in the verb form and two applied phrases expressing two distinct roles (in (7), *ìḡ* ‘what’ expressing the role of cause/purpose, and *kítsó* expressing the role of beneficiary).

- (7) *ò-lìm-èl-èl-à ìḡ 'kítsó 'ts'q̣:mò?*
 sI:2SG-plough-APPL-APPL-FV what Kitso(1) field(9)
 ‘Why are you ploughing the field for Kitso?’

By contrast, constructions with more than two applied phrases and more than two occurrences of *-el* in the verb form are impossible, although the variety of semantic roles that can be expressed via applicative derivation is such that it would not be very difficult to imagine the possibility of such constructions.

3.3 Non-applicative uses of the applicative marker *-el*

The suffix *-el* is the only possible marker of applicative constructions in Tswana, but it also has uses that cannot be analyzed as instances of applicativization, even if this term is taken in a relatively broad sense. For example, in (8b), *-el* licenses an applied object referring to a beneficiary, but in (8c), the same suffix marks the focalization of a locative

⁷ The morphophoneme *J* (see Footnote 5 above) occurs not only as one of the two allomorphs of the causative marker *-is* ~ *-J*, but also as one of the two allomorphs of the perfect marker *-il* ~ *-J*.

phrase expressing the localization of the event, without any evidence of a change in valency. (8d) shows that both uses of *-el* may coexist in a construction whose nucleus is a verb form including two successive occurrences of *-el*.

- (8) a. *dʒísú ú-nè à-sw-á (mó sifápáánò:-ŋ).*
 Jesus(1) sI:cl1-AUX sI:cl1-die-FV LOC cross(7)-LOC
 'Jesus died (on a cross).'
- b. *dʒísú ú-nè à-rí-sw-ê:l-à.*
 Jesus(1) sI:cl1-AUX sI:cl1-oI:1PL-die-APPL-FV
 'Jesus died for us.'
- c. *dʒísú ú-nè à-sw-él-à mó sifápáánò:-ŋ.*
 Jesus(1) sI:cl1-AUX sI:cl1-die-FOC-FV LOC cross(7)-LOC
 'Jesus died ON A CROSS.'
- d. *dʒísú ú-nè à-rí-sw-él-él-à mó sifápáánò:-ŋ.*
 Jesus(1) sI:cl1-AUX sI:cl1-oI:1PL-die-APPL-FOC-FV LOC cross(7)-LOC
 'Jesus died for us ON A CROSS.'

The non-applicative uses of *-el* will be described in Sections 6–7.

4 Applied-object constructions

Tswana applicative constructions divide into two subtypes according to the syntactic role of the applied phrase. This section is devoted to the applicative constructions in which the applied phrase fulfills the syntactic role of object, henceforth designated as APPLIED-OBJECT CONSTRUCTIONS (as opposed to APPLIED-OBLIQUE CONSTRUCTIONS, in which the applied phrase is syntactically an oblique).

4.1 Applied-object constructions as obligatory applicatives

In Tswana, applied-object constructions are very productive. As already commented in Section 3.1, and further illustrated by example (9), they are obligatory applicative constructions, in the sense that the participant encoded as the applied object cannot feature in a monoclausal construction whose nucleus would be the base verb.

- (9) a. *lòráts' 'ú-tláà-rók-á mòsî:sì.*
 Lorato(1) sI:cl1-FUT-sew-FV dress(3)
 'Lorato will sew a dress.'

- b. *lòráť* 'ú-tláà-rúk-él-á *dìmp^hś* *mùsî:sî*.
 Lorato(1) sI:cl1-FUT-sew-APPL-FV Dimpho(1) dress(3)
 'Lorato will sew a dress for Dimpho.'
- c. **lòráť* 'ú-tláà-rúk-á *dìmp^hś* *mùsî:sî*.
 Lorato(1) sI:cl1-FUT-sew-FV Dimpho(1) dress(3)
- d. **lòráť* 'ú-tláà-rúk-á *mùsîsî* PREP *dìm:p^hś*.
 Lorato(1) sI:cl1-FUT-sew-FV dress(3) Dimpho(1)

In some Bantu languages, an applicative suffix cognate with *-el* can be found not only in obligatory applicative constructions, but also in optional applicative constructions in which the applied object expresses the role of instrument, also expressible by means of a prepositional phrase in a non-applicative construction (Pacchiarotti, this volume). However, this possibility does not exist in Tswana, where instrumental adjuncts can only be expressed as prepositional phrases.

4.2 The treatment of the initial object in applied-object constructions

Consistently with the use of double-object constructions as the coding frame of trivalent verbs, in Tswana, the presence of an applied object in applicative constructions of transitive verbs does not necessitate the demotion of the initial object: if the base verb is transitive, the construction of the applicative verb is a double-object construction similar to that of trivalent verbs, showing the same symmetries, and subject to the same animacy-driven rule as regards the order of the object phrases and object indexes. For example, in an applied-object construction such as (10a), both the initial object and the applied object can be indexed at the same time and can equally be converted into the subject of a passive construction. The only constraint is that, in the construction of *rúkélá*, the promotion of the initial object in a passive construction blocks the possibility of indexing the applied object, but a similar constraint operates in the double-object construction of underived verbs such as 'give'.

- (10) a. *lòráť* 'ú-tláà-rúk-él-á *dìmp^hś* *mùsî:sî*.
 Lorato(1) sI:cl1-FUT-write-APPL-FV Dimpho(1) dress(3)
 'Lorato will sew a dress for Dimpho.'
- b. *lòráť* 'ú-tláà-ú-mò-rúk-ê:l-à.
 Lorato(1) sI:cl1-FUT-oI:cl3-oI:cl1-sew-APPL-FV
 'Lorato will sew it for her.'
- c. *dìmp^hś* 'ú-tláà-rúk-él-w-á *mùsî:sî*.
 Dimpho(1) sI:cl1-FUT-sew-APPL-PASS-FV dress(3)
 Lit. 'Dimpho will be sewn.for a dress.'

- d. *mùsísí 'ú-tláà-rók-él-w-á dím:p^hó.*
 dress(3) sI:cl3-FUT-sew-APPL-PASS-FV Dimpho(1)
 Lit. 'The dress will be sewn.for Dimpho.'
- e. *dìmp^hó 'ú-tláà-ú-rók-ê:l-w-à.*
 Dimpho(1) sI:cl1-FUT-oI:cl3-sew-APPL-PASS-FV
 Lit. 'Dimpho will be sewn.for it.'
- f. **mùsísí 'ú-tláà-mò-rók-ê:l-w-à.*
 dress(3) sI:cl3-FUT-oI:cl1-sew-APPL-PASS-FV

Depending on the valency of the base verb, it is possible to have three-object constructions in which one of the objects is an applied object, whereas the other objects either express arguments of the underived verb, or have been introduced by causative derivation. The latter possibility, already illustrated in example (3) above, is further illustrated in (11).

- (11) *néó 'ú-tláà-rók-ís-éts-à dìmp^hó lòrátó mùsì:sì.*
 Neo(1) sI:cl1-FUT-write-CAUS-APPL-FV Dimpho(1) Lorato(1) dress(3)
 'Neo will make Lorato sew a dress for Dimpho.'

Examples (12) and (13) illustrate three-object constructions resulting from applicativization of a verb whose basic coding frame is a double-object construction.

- (12) a. *kì-f-íl-é ñwánàké mà:dí.*
 sI:1SG-give-PRF-FV my.child(1) money(6)
 'I gave money to my son.'
- b. *kì-f-éts-í ñwánàké báisíkílí mà:dí.*
 sI:1SG-give-APPL-PRF-FV my.child(1) bicycle(9) money(6)
 'I gave money to my son for a bicycle.'
- c. *kì-á-í-mò-f-ê:ts-ì.*
 sI:1SG-oI:cl6-oI:cl9-oI:cl1-give-APPL-PRF-FV
 'I gave it to him for it.'
- (13) a. *kì-f-íl-é díq^hòmú lìtswâ:ì.*
 sI:1SG-give-PRF-FV cows(10) salt(5)
 'I gave salt to the cows.'
- b. *kì-f-éts-í màlómé díq^hòmú lìtswâ:ì.*
 sI:1SG-give-APPL-PRF-FV my.uncle(1) cows(10) salt(5)
 'I gave salt to the cows for my uncle.'
- c. *kì-ì-dí-mò-f-ê:ts-ì.*
 sI:1SG-oI:cl5-oI:cl10-oI:cl1-give-APPL-PRF-FV
 'I gave it to them for him.'

Comparison of examples (12) and (13) shows that the order of the objects in such constructions is not determined by their syntactic status as base objects or applied objects, but simply by the general animacy-based rule that also determines the linear order of objects with verbs whose basic coding-frame is a double-object construction.⁸

4.3 The semantic roles of applied objects

Some languages have applicative markers that specify the semantic role expressed by the applied object, or at least limit the semantic roles that can be expressed by the applied phrase. This is clearly not the case in Tswana, which can be characterized as having a semantically unspecified applicative marker available to license the expression of semantic roles that cannot be expressed as objects in a non-applicative construction, or by means of a preposition. In applied-object constructions, three semantic types of applied objects can be distinguished; they are examined in turn in Sections 4.3.1–4.3.3.

4.3.1 Applied objects representing non-essential participants

Examples (12) and (13) above show that, in the applied-object construction of ‘give’, the applied object may express the roles of beneficiary or purpose. Applied objects interpreted as beneficiaries are particularly common, but applied objects with a meaning of cause or purpose (these two meanings being often difficult to distinguish) are also quite common. Example (14) illustrates the possibility of a benefactive or purposive interpretation of the applied object of *bílétsá* (applicative form of *bítsá* ‘call’).

- (14) a. *mòsádí* *’ó-bíl-éts-á* *bàná* *dì:dǝ.*
 woman(1) sI:cl1-call-APPL-FV children(2) food(10)
 ‘The woman is calling the children to eat.’
 b. *mòsádí* *’ó-bíl-éts-á* *bàná* *ŋâ:kà.*
 woman(1) sI:cl1-call-APPL-FV children(2) doctor(9)
 ‘The woman is calling the doctor for the children.’

Examples (15) to (20) further illustrate the possibility of a causal or purposive reading of applied objects. Note that, in examples (18) and (20), the applied phrase is an infinitive.

⁸ An exception to this rule will be mentioned in Section 4.3.1.

- (15) *kítsó 'ú-bérék-él-à tíé:χò.*
 Kitso(1) sI:cl1-work-APPL-FV delay(9)
 Lit. 'Kitso is working for the delay.' (> in order to make up for lost time)
- (16) *mà-χòdù á-búlá-éts-í mòríná mà:dí.*
 thieves(6) sI:cl6-kill-APPL.PRF-FV man(1) money(6)
 'The thieves killed the man for money.'
- (17) *kì-lèbòχ-él-à kítsó mà:dí.*
 sI:1SG-thank-APPL-FV Kitso(1) money(6)
 'I am thanking Kitso for the money.'
- (18) *lòsía 'lú-líl-él-à χò-á:nà.*
 baby(11) sI:cl11-cry-APPL-FV INF-suck
 'The baby is crying [because he wants] to suck.'
- (19) *kì-tlàà-bón-él-á nítlò kái mà:dí?*
 sI:1SG-FUT-see-APPL-FV house(9) where money(6)
 'Where shall I find money for the house?'
- (20) *màpòdísi á-mò-ts^hwár-éts-í χò-χát-ís-á mót^hò*
 policemen(6) sI:cl6-oI:cl1-arrest-APPL.PRF-FV INF-step.ON-CAUS-FV person(1)
mómótórkà:rà.
 car(3)
 'The policemen arrested him for driving over a person with his car.'
- (21) *mùsísì ó kí-tlàà-ú-ápár-él-à mùdì:rò.*
 dress(3) cl3.DEM sI:1SG-FUT-oI:cl3-wear-APPL-FV ceremony(3)
 'This dress, I'll wear it for the ceremony.'

In particular, constructions with the interrogative pronoun *ìŋ* in the role of applied object are a very common strategy to question about the cause or purpose of the event, as in (22), to be compared with (18) above, or (23).

- (22) *lòsía 'lú-líl-él-à ìŋ?*
 baby(11) sI:cl11-cry-APPL-FV what
 'Why is the baby crying?'
- (23) *ò-rí-tt^hódí-él-à ìŋ mó χàrí χ-á-bùsì:χò.*
 sI:2SG-oI:1PL-disturb-APPL-FV what LOC middle(17) cl.17-GEN-night(14)
 'Why do you disturb us in the middle of the night?'

In this particular use of applied-object constructions, a special rule according to which *ĩj* referring to the cause or purpose of the event must immediately follow the verb supersedes the general rule determining the linear order of objects in multiple-object constructions (Cole 1955: 432), as can be observed by comparing (24a) (where *ĩj* represents the initial object of ‘buy’) with (24b) (where *ĩj* in the role of applied object is the equivalent of English *why*).

- (24) a. *ò-rék-él-á* *bàná* *ĩj?*
 sI:2SG-buy-APPL-FV children(2) what
 ‘What are you buying for the children?’
 b. *ò-rék-él-él-à* *ĩj* *bàná* *diàpà:rǝ?*
 sI:2SG-buy-APPL-APPL-FV what children(2) clothes(10)
 ‘Why are you buying clothes for the children?’

4.3.2 Applied objects expressing the role of concernee

One of the possible functions of applicative derivation in Tswana (as in many other languages) is to license a concernee-concern (or “external possession”) construction with the concernee (“external possessor”) in the role of applied object, the concern fulfilling the subject or object role in accordance with its role in the event denoted by the verb.⁹

In Tswana, non-applicative constructions with an object phrase expressing the role of concernee are possible if the relationship that motivates the use of a concernee-concern construction is a whole-part relationship, as in (25) and (26). Note that *sít^hàrì* in (25) and *ɣwàná* in (26) cannot be analyzed as adnominal possessors, since the corresponding adnominal possession constructions would be *dikàlà ts-á-sít^hàrì* ‘the branches of the tree’ and *siàt^hà s-á-ɣwàná* ‘the child’s hand’.

- (25) *kì-rém-íl-é* *sít^hàrì* *dikà:là*.
 sI:1SG-chop-PRF-FV tree(7) branches(10)
 Lit. ‘I chopped the tree the branches.’ > ‘I chopped off the branches of the tree.’
 (26) *mòríná* *’ú-ts^hwér-í* *ɣwàná* *síà:t^hà*.
 man(1) sI:cl1-seize-PRF-FV child(1) hand(7)
 Lit. ‘The man seized the child the hand.’ > ‘The man seized the child by the hand.’

⁹ For a discussion of the notion of concernee-concern construction, and a general survey of concernee-concern constructions in Bantu, see Van de Velde (2020).

However, if the semantic relationship between the concerne and the concern is other than a whole-part relationship, the concerne must be encoded as an applied object, as in (27) and (28).

- (27) a. *m̩pʰɔ́ ʼú-dʒ-íl-é dínà:wá.*
 Mpho(1) sI:cl1-eat-PRF-FV beans(10)
 ‘Mpho ate the beans.’
 b. *m̩pʰɔ́ ʼú-dʒ-éts-í ʼkítsó dínà:wá.*
 Mpho(1) sI:cl1-eat-APPL-PRF-FV Kitso(1) beans(10)
 Lit. ‘Mpho ate.APPL Kitso the beans.’ > ‘Mpho ate Kitso’s beans.’ (i.e., the beans that had been prepared for Kitso)
- (28) a. *mùχóté ú-χòd-ì:l-è.*
 fever(3) sI:cl3-grow-PRF-FV
 ‘The fever has gone up.’
 b. *mùχóté ʼú-mù-χúl-ê:ts-ì.*
 fever(3) sI:cl3-oI:cl1-grow-APPL-PRF-FV
 Lit. ‘The fever has gone.up.APPL him.’ > ‘His fever has gone up.’

Examples (29) and (30) illustrate the conversion of an applied object representing a concerne into the subject of a passive construction. Such a combination of applicativization and passivization results in constructions functionally similar to the “adversative passives” found in Japanese and other languages.

- (29) *rì-f-él-w-à kí mán:ttò.*
 sI:1PL-burn-APPL-PASS-FV by houses(6)
 Lit. ‘We are burnt.APPL by houses.’ > ‘Our houses are burning.’
- (30) *kítsó ʼú-sw-éts-w-ì kí r̀ráà:χwé.*
 Kitso(1) sI:cl1-die-APPL-PRF-PASS-FV by his.father(1)
 Lit. ‘Kitso has been died.APPL by his father.’ > ‘Kitso’s father has died.’

Semantically, there is an obvious affinity between applied objects expressing the semantic role of concerne and applied objects expressing the semantic role of beneficiary. The difference is that the notion of concerne (in contrast to the notion of beneficiary, which carries no such implication) implies the existence of a previously established relationship between the concerne and the concern.

4.3.3 Applied objects referring to essential participants

In Tswana, applicative derivation does not only license applied objects expressing semantic roles independent from the lexical meaning of the verb. In many cases, the applied object is in fact best analyzed as a semantic argument of the verb that can only be expressed as an applied object, since its semantic role is implied by the lexical meaning of the verb.

For example, the lexical meaning of *dúélá* ‘pay’ implies three participants: the payer, the recipient, and the thing being paid. In Tswana, *dúélá* in its underived form can only be used in a single-object construction whose object represents the recipient (31a-b), and there is no possibility of referring to the thing being paid by means of a prepositional phrase. Consequently, the thing being paid can only be mentioned as the applied object of the derived verb *dúélélà*, as in (31c).

- (31) a. *kì-tlàà-χù-dúél-à* *ká* *ʔʰê:kè.*
 sI:1SG-FUT-oI:2SG-pay-FV with check(9)
 ‘I’ll pay you by check.’
 b. **kì-tlàà-dúél-á* *ʔáákâ:nò.*
 sI:1SG-FUT-pay-FV repair(9)
 intended: ‘I’ll pay the repair fee.’
 c. *kì-tlàà-dúél-él-à* *ʔáákâ:nò.*
 sI:1SG-FUT-pay-APPL-FV repair(9)
 ‘I’ll pay the repair fee.’

Examples (32) to (36) provide further illustrations of applied objects referring to participants for which an analysis as essential participants in the event denoted by the verb can be considered.

- (32) a. *qʰósí* *ʔí-átʰól-éts-í* *mònná* *búχò:dù.*
 king(9) sI:cl9-condemn-APPL.PRF-FV man(1) theft(14)
 ‘The king condemned the man for theft.’
 b. *qʰósí* *ʔí-átʰól-éts-í* *mònná* *lù:só.*
 king(9) sI:cl9-condemn-APPL.PRF-FV man(1) death(11)
 ‘The king condemned the man to death.’
- (33) *mùsádi* *jó* *ʔó-ák-él-à* *rálíbíntí:lì.*
 woman(1) cl1.DEM sI:cl1-tell.lies-APPL-FV shopkeeper(1)
 ‘This woman is telling lies about the shopkeeper.’
- (34) *màbêlé* *ʔá-áláf-él-w-à* *tsʰù:pà.*
 sorghum(6) sI:cl6-treat-APPL-PASS-FV SG.tshupa(9)
 ‘The sorghum is treated against tshupa (a kind of worm).’

- (35) *mòsétsánà jó 'ó-fós-éts-à sìtswâ:nà.*
 girl(1) cl1.DEM sI:cl1-miss-APPL-FV Tswana.customs(7)
 'This girl contravenes Tswana customs.'
- (36) *kì-χáq^hámál-él-à bòpìlúq^hálì dǝw-á-ηwàná: jò.*
 sI:1SG-be.impressed-APPL-FV courage(14) cl14-GEN-child(1) cl1.DEM
 'I am impressed by the courage of this child.'

In this connection, the behavior of *kwálá* 'write' is particularly interesting to analyze. *kwálá* is basically a bivalent verb, but the selection of *lòkwálá* 'letter' as its object implies a third essential participant with the semantic role of recipient, since a letter is intended to be sent to someone. However, the recipient of *kwálá lòkwálá* 'write a letter', contrary to the recipient of the verbs that are inherently verbs of giving, must be encoded as an applied object, with the consequence that, in a clause such as (37b), the applied object can be understood as referring to the recipient (essential participant) or to a beneficiary (non-essential participant). Note that the repetition of the applicative suffix makes it possible to express both roles simultaneously, and then the applied object that immediately follows the verb is unambiguously interpreted as a beneficiary, whereas the applied object in second position is interpreted as the recipient, exactly as in the three-object construction expressing 'give s.th. to s.o. in behalf of s.o.' (see example (2) above).

- (37) a. *kì-ttâà-kwál-á lòkwâ:lò.*
 sI:1SG-FUT-write-FV letter(11)
 'I'll write a letter.'
- b. *kì-ttâà-kwál-él-á m̀p^hò lòkwâ:lò.*
 sI:1SG-FUT-write-APPL-FV Mpho(1) letter(11)
 'I'll write a letter to Mpho.'
 OR 'I'll write a letter on behalf of Mpho.'
- c. *kì-ttâà-kwál-él-él-á r̀ré m̀p^hò lòkwâ:lò.*
 sI:1SG-FUT-write-APPL-APPL-FV my.father(cl1) Mpho(1) letter(11)
 'I'll write a letter to Mpho on behalf of my father.'

5 Applied-oblique constructions

5.1 Introductory remarks

The definition of applicative constructions adopted in this chapter includes constructions in which a derived form of the verb assigns an oblique grammatical relation to an NP (the applied phrase) representing a non-core participant that could not be coded in the same way (or could not be coded at all) in the construction of the base verb.

Bantu languages in general, and Tswana in particular, provide many interesting data about constructions meeting the broad definition of applicative constructions that involve the same derived form of verbs as applied-object constructions, but in which the applied phrase is a locative phrase that does not have the syntactic status of object.

In the uses of *-el* examined in this section, as in its use in applied-object constructions, *-el* licenses a term expressing a particular semantic role that could not be expressed in the construction of the base verb. However, the term in question is not encoded as an object NP, but as a locative phrase showing no evidence of a syntactic status different from that of ordinary obliques: it cannot be cross-referenced by an object index, or converted into the subject of a passive construction, and more generally, apart from the fact that its deletion results in ungrammaticality, it behaves like locative phrases accompanying non-derived verbs.

For a proper understanding of the data commented in this section, it is crucial to keep in mind that, in Tswana, as in the vast majority of Bantu languages, locative phrases are not specified for the location vs. source vs. destination distinction.¹⁰ In Tswana, the precise semantic role of locatives in the construction of non-applicative verbs is regulated in the following way:

- (a) any Tswana verb can combine with a locative phrase expressing the location of the event, or of a participant in the event, as in example (38);
- (b) in combination with some motion verbs, locative phrases are assigned the semantic role of destination, as in example (39);
- (c) with some other motion verbs, locative phrases are assigned the role of source, as in example (40).

- (38) *kítsó 'ú-bérék-à kó kà:né.*
 Kitso(1) sI:cl1-work-FV LOC Kanye
 'Kitso is working in Kanye.'

- (39) *kítsó ú-íl-é kó kà:né.*
 Kitso(1) sI:cl1-go.PRF-FV LOC Kanye
 'Kitso went to Kanye.'

- (40) *kítsó 'ú-húdúx-íl-è kó kà:né.*
 Kitso(1) sI:cl1-move-PRF-FV LOC Kanye
 'Kitso moved from Kanye.'

¹⁰ This particularity in the encoding of spatial relationships is found in many language families of sub-Saharan Africa, in particular (but not only) among those belonging to the Niger-Congo phylum.

Interestingly, applicative derivation may license locative phrases expressing roles other than the role they would express in combination with the underived form of the same verb. Three cases must be distinguished.

5.2 Motion verbs that cannot assign the role of source or destination

tábúχá ‘run’ is semantically a motion verb, but in its underived form, it has no semantic role to assign to a locative phrase, which means that the only available interpretation for a locative term in the construction of *tábúχá* in its underived form is the default interpretation of location of the event. By contrast, a locative in the construction of the applicative form *tábúχélà* can be interpreted as referring to destination of motion—Example (41b). The same behavior is observed with *àkùfà* ‘hurry’, *fùfà* ‘fly’, *fità* ‘pass’, etc.

- (41) a. *kì-ttàà-tábúχ-à kó tsilê:-ŋ.*
 sI:1SG-FUT-run-FV LOC road(9)-LOC
 ‘I will run on the road.’
 b. *kì-ttàà-tábúχ-él-à kó tsilê:-ŋ.*
 sI:1SG-FUT-run-APPL-FV LOC road(9)-LOC
 ‘I will run to the road.’¹¹

In this particular case (but not in those examined in the remainder of this section), an applied-object construction, as in (42), would be possible with the same meaning.

- (42) *kì-ttàà-tábúχ-él-à tsì:là.*
 sI:1SG-FUT-run-APPL-FV road(9)
 ‘I will run to the road.’

There is an obvious relationship with the fact that, in Tswana, non-derived verbs of motion that assign the role of destination (such as *jà* ‘go’) have an alternative construction in which the destination is encoded as the object of a transitive construction.

¹¹ See Section 6.1 for another possible interpretation of this sentence.

5.3 Motion verbs that assign the role of source in their underived form

With motion verbs whose underived form assigns the role of source to locative complements, the applicative form has the same formal valency as the non-derived form, but assigns to its locative complement the role of destination, as illustrated in example (43) by *húdúχá* ‘change one’s residence’.

- (43) a. *kì-tlàà-húdúχ-à kó Kà:ɲé.*
 sI:1SG-FUT-move-FV LOC Kanye
 ‘I will move from Kanye.’
 b. *kì-tlàà-húdúχ-él-à kó χàbórô:nì.*
 sI:1SG-FUT-move-APPL-FV LOC Gaborone
 ‘I will move to Gaborone.’

Crucially, in contrast to applied-object constructions, the applicative constructions of motion verbs with a locative as the applied phrase are not valency-increasing, but VALENCY-REARRANGING. The addition of the *suffix -el* to verbs such as *húdúχá* gives them the capacity to take a locative complement referring to destination of motion, but at the same time precludes them from taking a locative complement referring to source of motion. In order to express ‘move from A to B’, Tswana must use a clause chain with a first clause in which the non-derived form of *húdúχá* is followed by a locative complement specifying the source of motion, and a second clause in which the applicative form of the same verb is followed by a locative complement specifying the destination of motion, as in (44). More generally, Tswana, like many languages of sub-Saharan Africa, cannot specify the source and destination of motion within the frame of monoverbal constructions.

- (44) *kì-tlàà-húdúχ-à kó Kàɲé kì-húdúχ-él-ì kó χàbórô:nì.*
 sI:1SG-FUT-move-FV LOC Kanye sI:1SG-move-APPL-FV LOC Gaborone
 ‘I will move from Kanye [and will move.APPL] to Gaborone.’

Here again, it is interesting to observe that the applied phrase cannot be analyzed as referring to a marginal participant or a circumstance of the event, since the lexical meaning of *húdúχá* ‘change one’s residence’ cannot be defined without mentioning both a source and a destination of motion, and there is no a priori reason why special marking should be required to express the destination but not the source, rather than the other way round.

5.4 Verbs that do not express motion

Verbs that do not express motion freely combine with locatives expressing the location of the event or of a participant, as already illustrated by example (38) above, but the use of the applicative form is obligatory to license the presence of a locative whose semantic role departs more or less from the mere indication of a location.

For example, Tswana syntax is sensitive to the difference in the semantic role of *in the yard* and *in the big pot* in *She is cooking porridge in the yard* / *She is cooking porridge in the big pot*. In the first sentence, *in the yard* expresses nothing more than the location of the event, whereas in the event represented by the second sentence, the pot contains the porridge, which justifies coding it as a locative, but it is also an essential element of the porridge cooking event, in which it plays the role of an indispensable instrument. In other words, the spatial relationship between the pot and the porridge is not accidental; it follows from the role they play in the cooking event, and this may explain why, in the Tswana equivalent of *She is cooking porridge in the yard*, the verb *cook* can remain in its underived form, whereas in the equivalent of *She is cooking the porridge in the big pot*, the verb *cook* must be in the same applicative form as when, for example, a noun phrase referring to a beneficiary is added to the construction of this verb. Interestingly, the applicative derivation must be reiterated in order to make it possible to mention both the vessel used to cook the porridge and the beneficiary of the cooking event—Example (45).

- (45) a. *lòráts'ó-tláá-àpàj-à mòtò:χó.*
 Lorato(1) sI:cl1-FUT-cook-FV porridge(3)
 'Lorato will cook the porridge.'
- b. *lòráts'ó-tláá-àpè-èl-à bàná mútò:χó.*
 Lorato(1) sI:cl1-FUT-cook-APPL-FV children(2) porridge(3)
 'Lorato will cook the porridge for the children.'
- c. *lòráts'ó-tláá-àpè-èl-à mòtòχó mó pítse-ḡ é*
 Lorato(1) sI:cl1-FUT-cook-APPL-FV porridge(3) LOC pot(9)-LOC cl9.LK
'tò:nà.
 cl9.big
 'Lorato will cook the porridge in the big pot.'
- d. *lòráts'ó-tláá-àpè-èl-èl-à bàná mútòχó*
 Lorato(1) sI:cl1-FUT-cook-APPL-APPL-FV children(2) porridge(3)
mó pítse-ḡ é 'tò:nà.
 LOC pot(9)-LOC cl9.LK cl9.big
 'Lorato will cook the porridge for the children in the big pot.'

Examples (46) and (47) provide additional illustrations of the obligatory use of applicative forms of verbs that do not express motion to license a locative phrase whose seman-

tic role is not limited to the mere expression of location, since it refers to an essential element in the situation denoted by the verb.

- (46) *dìq^hòmú 'dí-nw-él-à mó mòkórô:-ɲ.*
 cows(10) sI:cl10-drink-APPL-FV LOC mokoro(3)-LOC
 ‘Cows drink from a *mokoro*.’ (a tree trunk carved in the shape of a canoe)

- (47) *rì-kwál-él-à mó pámpírí:-ɲ.*
 sI:1PL-write-APPL-FV LOC paper(9)-LOC
 ‘We write on paper.’

5.5 The particular case of *rúká* ‘sew’ and *bǎfá* ‘bind’

rúká ‘sew’ and *bǎfá* ‘bind’ can be found in applicative constructions of the type discussed in Section 5.4, in which the applied phrase is a locative whose semantic role does not boil down to the expression of location, since it refers to a participant playing an essential role in the event referred to: the surface on which something is being fixed (48), or a stationary object to which something is being tied (49). What is, however, difficult to explain, is that, with these two verbs (and not with others), the applicative marker must be repeated in a construction including a single applied phrase.

- (48) *lòrátó 'ú-rúk-él-él-à dikhónúpó 'mó síàpàrò-ɲ s-â:-mì.*
 Lorato(1) sI:cl1-sew-APPL-APPL-FV buttons(10) LOC dress(7)-LOC cl7-GEN-1SG
 ‘Lorato is sewing buttons on my dress.’

- (49) *kì-tàà-bǎf-él-él-à pítsí 'fá sít^hàrì:-ɲ.*
 sI:1SG-FUT-tie-APPL-APPL-FV horse(9) LOC tree(7)-LOC
 ‘I’ll tie the horse to the tree.’

5.6 Applicative constructions triggered by the adverb *rúrí*

rúrí is an adverb that can be found in two distinct constructions. In clause-initial position, it expresses a meaning that can be glossed as ‘really’, ‘truly’, ‘surely’. It does not modify the propositional content of the clause and has no incidence on the verb form. In post-verbal position, it expresses a meaning that can be glossed as ‘for a long time’, ‘for ever’, ‘for real’, ‘irrevocably’. In this construction, in which *rúrí* contributes to the propositional content of the clause, the verb must be in the applicative form, and the deletion of the applicative marker results in ungrammaticality.

- (50) *bá-tláá-χò-bólá-él-à* *rú:ri.*
 sI:cl2-FUT-oI:2SG-kill-APPL-FV for.real
 ‘They will kill you for real.’
- (51) *bá-nè* *bà-χópúl-á* *χòrì tóhki* *‘í-lát^héχ-éts-ì* *rú:ri.*
 sI:cl2-AUX sI:cl2-think-FV that donkey(9) sI:cl9-get.lost-APPL.PRF-FV definitely
 ‘They thought that the donkey had definitely been lost.’

This is, to the best of my knowledge, the only case of a Tswana applicative construction in which the applied phrase is not a nominal or a locative.

6 -*él* in constructions with instrumental subject

In Tswana, participants usually treated as instrumental adjuncts in the construction of the underived form of a verb, i.e. encoded as complements of the instrumental preposition *ká*, as in (52a), cannot be encoded as applied phrases. However, if no agent is mentioned, instruments can take the role of subject in constructions such as (52b), where the verb is in the same form as in applicative constructions, and the referent of the subject of the base verb (the agent) is left unexpressed (and is interpreted as non-specific). Even in a very broad conception of applicative constructions, a crucial property of applicativization is that it triggers no change in the semantic role of the subject. Consequently, in spite of the fact that the verb form in (52b) obligatorily includes the same marker -*él* as the verb forms found in applicative constructions, (52b) cannot be analyzed as an applicative construction, and rather meets the definition of oblique passivization (i.e., subject demotion compensated by the promotion of an oblique to subject role).

- (52) a. *ó-nè* *à-fābà* *bò-χóbbé* *‘ká* *námà*
 sI:cl1-AUX sI:cl1-flavor-FV porridge(14) with flesh(9)
j-á-q^hā:kà.
 cl9-GEN-guinea.fowl(9)
 ‘He flavored the porridge with the flesh of the guinea-fowl.’
- b. *námà* *í-fāb-él-à* *bòχô:bè.*
 flesh(9) sI:cl9-flavor-?-FV porridge(14)
 ‘Meat gives flavor to the porridge.’

As already mentioned above, in Tswana, instruments usually encoded as locatives by virtue of the spatial relationship they necessarily have with the referent of the object require applicative marking on the verb. Interestingly, with such instruments, as illustrated in (53), promotion to subject does not necessitate the insertion of an additional applicative marker.

- (53) a. *mòsádí* *ú-nè* *à-ts'ùl-él-à* *bùχǝbé* *mó*
 woman(1) sI:cl1-AUX sI:cl1-dish.out-APPL-FV porridge(14) LOC
mìχúpó:-ǝ.
 wooden.bowls(4)-LOC
 'The woman dished out the porridge into the wooden bowls.'
- b. *mòχúpó* *!ú-ts'ùl-él-à* *bùχǝ:bè.*
 wooden.bowl(3) sI:cl3-dish.out-?-FV porridge(14)
 'The wooden bowl is used to dish out porridge.'

7 Uses of *-él* not related to valency operations

7.1 *-él* and the focalization of locative adjuncts

In Tswana clauses including a locative phrase expressing the location of the event, the suffix *-él* may be added to the verb form without any other change in the form of the clause and without any change in the semantic role of the locative phrase, which rules out analyzing *-él* as marking a valency operation (applicativization or other). In this case, the function of *-él* is to mark focalization of the locative expressing the location of the event, as in (54b). This use of *-él* constitutes an alternative to cleft constructions, which are in Tswana the standard way to express focalization. However, it is only available if the term to be focalized is a locative expressing the location of the event.

- (54) a. *mòrínà* *w-á-mí* *ú-nè* *à-sw-á* *kó* *mùráfō:-ǝ.*
 man(1) cl1-GEN-1SG sI:cl1-AUX sI:cl1-die-FV LOC mine(3)-LOC
 'My husband died in the mine.'
- b. *mòrínà* *w-á-mí* *ú-nè* *à-sw-él-à* *kó* *mùráfō:-ǝ.*
 man(1) cl1-GEN-1SG sI:cl1-AUX sI:cl1-die-FOC-FV LOC mine(3)-LOC
 'My husband died IN THE MINE.'

Examples (55) and (56) provide further illustration of the focalizing use of *-él*.

- (55) *lòrátǝ* *!ú-ápé-él-à* *mó* *džáràtê:-ǝ.*
 Lorato(1) sI:cl1-cook-FOC-FV LOC yard(9)-LOC
 'Lorato is doing the cooking IN THE YARD.'
- (56) *kì-tsál-éts-w-ì* *kó* *kà:né.*
 sI:1SG-give.birth-FOC-PRF-FOC-FV LOC Kanye
 'I was born IN KANYE.'

Interestingly, this use of the suffix *-el* results in ambiguity in the case of motion verbs that cannot assign the role of source of motion or destination of motion to a locative complement, since with such verbs, *-el* may also mark an applicative construction in which the locative expresses the role of destination of motion. For example, in (41) above, repeated here as (57), the second sentence is in fact ambiguous between an interpretation according to which *-el* marks a change in the role-assigning properties of *tábúχá* ('I will run TO the road [not ON the road]'), and another interpretation according to which the applicative suffix marks the focalization of a locative phrase without modifying its semantic role of location.

- (57) a. *kì-tlàà-tábúχ-à kó tsilê:-ŋ.*
 sI:1SG-FUT-run-FV LOC road(9)-LOC
 'I will run on the road.'
- b. *kì-tlàà-tábúχ-él-à kó tsilê:-ŋ.*
 sI:1SG-FUT-run-APPL/FOC-FV LOC road(9)-LOC
 'I will run to the road.' OR 'I will run ON THE ROAD (and nowhere else).'

7.2 *-el* and the expression of habituality of action at some place

In Tswana clauses including a locative phrase expressing the location of the event, in addition to its use to mark the focalization of the locative phrase without any change in the assignment of semantic roles, the applicative marker *-el* can also be used to express the aspectual notion of habituality of action at the place referred to by the locative phrase, without any change in the construction or in the assignment of semantic roles. Example (55) above, repeated here as (58b), is in fact ambiguous between a focalizing and a habitual reading of the verbal suffix *-el* also used in applicative function.

- (58) a. *lòrátó 'ú-ápáj-à mó dzáràtê:-ŋ.*
 Lorato(1) sI:cl1-cook-FV LOC yard(9)-LOC
 'Lorato is doing the cooking in the yard.'
- b. *lòrátó 'ú-ápé-él-à mó dzáràtê:-ŋ.*
 Lorato(1) sI:cl1-cook-FOC/HAB-FV LOC yard(9)-LOC
 'Lorato does the cooking IN THE YARD.'
 OR 'Lorato habitually cooks in the yard.'

7.3 *-el* and the expression of intensity

In many Bantu languages, applicative markers also have a use in which they imply neither a formal change in the construction nor a change in the semantic roles, and are interpreted as expressing intensity of the action (completeness, persistency, effort, iter-

ativity). Most of the time, this use of applicative markers implies reduplication, and this the case in Tswana, as illustrated in (59) by *lib-à* ‘look at’ > *lib-élél-à* ‘watch carefully’.

- (59) a. *lib-á* *sít^hàrì: sé!*
 look.at-FV tree(7) cl7.DEM
 ‘Look at this tree!’
- b. *bàná* *bá-ì-t^hút-á* *tírō* *j-á-χó-lúχ-à*
 children(2) sI:cl2-REFL-teach-FV work(9) cl9-GEN-INF-plait-FV
 ká χò-lib-élél-à *bàχō:lò.*
 by INF-look.at-EMPH-FV adults(2)
 ‘Children learn to plait by observing adults.’

The following verb pairs illustrate the intensive use of *-élél*:

<i>χán-á</i>	‘refuse’	<i>χán-élél-à</i>	‘refuse completely, be adamant’
<i>óm-á</i>	‘become dry’	<i>óm-élél-à</i>	‘become completely dried out’
<i>fít-à</i>	‘pass’	<i>fít-èlél-à</i>	‘go too far, exaggerate’
<i>dùp-à</i>	‘scent’	<i>dùp-élél-à</i>	‘scent’ (more emphatic than <i>dùp-à</i>)
<i>χát-á</i>	‘tramp, ‘tread’	<i>χát-élél-à</i>	‘press down, oppress’
<i>q^hábét^t-á</i>	‘chop into pieces’	<i>q^hábét^t-élél-à</i>	‘chop into very small pieces’
<i>lík-á</i>	‘try, attempt’	<i>lík-él-élà</i>	‘try out, test, fathom’
<i>tsén-á</i>	‘enter’	<i>tsén-élél-à</i>	‘go deep into’
<i>út^tw-á</i>	‘hear’	<i>út^tw-élél-à</i>	‘listen’
<i>bàl-à</i>	‘count’	<i>bàl-élél-à</i>	‘calculate with precision’

There are also pairs such as *χ-á* / *χ-élél-á* ‘draw (water)’, or *lèt^t-à* / *lèt^t-élél-à* ‘allow, permit’, described as fully synonymous in the dictionaries.

Interestingly, with some verbs, the same meaning of intensity without any change in the valency is expressed by the reduplication of the causative suffix.

8 Lexicalized applicatives

The verbal lexicon of Tswana includes a non-negligible proportion of verbs whose stem ends with *-él*, and for which a semantically plausible source of derivation can be identified, but with a meaning and a construction that preclude a synchronic analysis in terms of applicativization. Such verbs can be designated as lexicalized applicatives, or pseudo-applicatives.

For example, *lálélá* ‘have dinner’ is probably cognate with *lálá* ‘lie down, go to bed, spend the night’. Having dinner is precisely what one normally does before going to bed, and consequently, there is no difficulty in analyzing a semantic shift from ‘lie

down' to 'have dinner' as a case of metonymy. However, the details of the evolution that led to the present situation are unclear, particularly regarding the possible involvement of an applicative marker. The only sure thing is that, in present-day Tswana, *lálélá* and *lálá* are equally intransitive, and *ká díq^hòbè* in (60b) shows no evidence of being anything else than an ordinary adjunct.

- (60) a. *rì-tàà-lál-à* *mó náχè:-ŋ.*
 sI:1PL-FUT-lie.down-FV LOC bush(9)-LOC
 'We will lie down / spend the night in the bush.'
- b. *rì-tàà-lálél-à* *ká díq^hò:bè.*
 sI:1PL-FUT-have.dinner-FV with maize.and.beans(10)
 'We will have maize-and-beans for dinner.'
 Lit. 'We will have dinner with maize-and-beans.'

Similarly, Tswana *ilèlà* 'revere' is certainly a reflex of the same Proto-Bantu root **gid* 'abstain from, avoid' as *ilà* 'hate', since it is easy to imagine how 'revere' and 'hate' may have developed as two diverging specializations of the meaning 'abstain from, avoid' reconstructed for this root. What is much less clear is the role that an applicative marker might have played in this process, since synchronically, as illustrated in (61), both *ilèlà* 'revere' and *ilà* 'hate' are plain transitive verbs.

- (61) a. *kí iŋ 'ú-mó-ì:l-à?*
 it.is what sI:2SG-sI:cl1-hate-FV
 'Why do you hate him/her?'
- b. *bá-ílél-à* *mòdī:mò.*
 sI:cl2-revere-FV god(3)
 'They revere God.'

Tswana also has many verbs ending with *-elela* that may be analyzed as resulting from the lexicalization of the intensive use of the reduplication of the applicative suffix, such as *émélélá* 'move off', probably related etymologically to *émá* 'stand up'.

Pacchiarotti (2020) provides an in-depth analysis of the lexicalized applicatives of Tswana, to which readers are referred for a comprehensive account.

9 The question of applicative-like uses of the causative marker

Some of the Bantu languages that have a semantically under-specified applicative marker cognate with *-el* productively use it in applicative constructions in which the applied object expresses the role of instrument, whereas others (for example, Kinyar-

wanda) encode instruments as applied objects in applicative constructions in which the verb is not in the form used for other semantic types of applicative constructions, but in the form typically used in causative constructions. This strategy can be viewed as expressing a conceptualization ‘Agent makes Instrument act on Patient’, made possible by the involvement of instruments in the causal chain.

In Tswana, instruments are standardly encoded by means of the preposition *ká*, without any marking on the verb, as in (62).

- (62) *ɣwàná ó-ìté-ìl-é jìtfá 'ká tʰû.pà.*
 child(1) sI:cl1-hit-PRF-FV dog(9) with stick(9)
 ‘The child hit the dog with a stick.’

However, one may wonder whether sentences such as (63) could not be analyzed as involving a marginal applicative-like use of the causative marker *-is*.

- (63) *kítsó 'ú-χát-ís-ìts-é jìtfá m̀mótórùkà:rà.*
 Kitso(1) sI:cl1-step.on-CAUS-PRF-FV dog(9) car(3)
 ‘Kitso drove over a dog with his car.’

The analysis of (63) as an applicative construction with an applied object expressing the role of instrument is suggested by the English translation. However, ‘car’ in (63) is clearly not a typical instrument, nor is ‘Kitso’ (normally) interpreted as a typical agent, but rather as an “involuntary agent”. Moreover, the event referred to as (63) includes a sub-event that can be referred to as (64).

- (64) *m̀mótórùkàrá 'ú-χát-ìl-é jì:tfá.*
 car(3) sI:cl3-step.on-PRF-FV dog(9)
 ‘The car ran over a dog.’

Consequently, there is no reason not to analyze ‘the car’ in (63) as the causee in a permissive causative construction: ‘Kitso (inadvertently) let the car run over a dog’. In other words, such constructions do not put into question the statement that all the types of applicative constructions that are possible in Tswana make use of the same applicative marker *-el*.

10 Conclusion

In this chapter, based on a relatively broad definition of applicative constructions, I have surveyed the various types of applicative constructions attested in Tswana, and the non-applicative uses of applicative morphology. According to the questionnaire pro-

posed as a guideline for the contributions to this volume, Tswana applicative constructions can be characterized as follows:

Morphology

- All subtypes of applicative constructions attested in Tswana make use of the same marker, a verbal suffix occupying the same slot in the verbal template as several other valency-changing suffixes (causative, anticausative, and reciprocal).
- Tswana does not have constructions that could be analyzed as more or less grammaticalized applicative periphrases or analytical applicative constructions.
- The allomorphs of the applicative suffix involve no lexical conditioning, they can be exhaustively described as resulting from regular morpho-phonological processes operating on an underlying form *-el*.
- The presence of the applicative marker *-el* has no incidence on the other aspects of verb morphology.

Syntax

- Applicativization is not conditioned by the transitivity properties of the base verb; some uses of applicative constructions are conditioned by the participant frame of the base verb, but, for example, applied-object constructions with the applied object representing a beneficiary are equally possible with intransitive, transitive, and ditransitive verbs.
- Tswana has both applicative constructions in which the applied phrase is a noun phrase showing all the properties that characterize objects in non-applicative constructions, and applicative constructions in which the applied phrase is a locative showing no evidence of a syntactic status distinct from that of ordinary obliques.
- With just one exception, discussed in Section 4.3, Tswana applicatives are valency-increasing (as opposed to valency-rearranging) applicative constructions, in which the status of the applied phrase's companion arguments/adjuncts does not change between the base construction and the applicative construction.
- There are no particular restrictions on the combination of applicativization with the other types of valency-changing operations that are grammaticalized in Tswana (causativization, anticausativization, reflexivization, reciprocalization, passivization), apart from the fact that combinations that would result in constructions including more than three objects are ruled out. Moreover, repetition of the applicative marker may license constructions including two applied phrases with distinct semantic roles. However, verb forms including more than two occurrences of the applicative marker, or applicative constructions including more than two applied phrases, are not allowed.
- There is no difference between applicative constructions and constructions of underived verbs involving the same number of object NPs.

- Tswana applicatives are obligatory applicatives whose use is not conditioned by limited access of obliques to some operations, but simply by the impossibility to express some semantic roles otherwise than via applicativization.

Semantics

- The applicative marker is a semantically under-specified marker available to license a wide variety of semantic roles.
- The only possible generalization about the semantic roles expressed by applied phrases is that they refer to participants or circumstances that cannot be encoded as objects or as complements of prepositions: beneficiaries, cause, purpose, containers playing an essential role in the event denoted by the verb, etc. Applied phrases do not necessarily refer to peripheral participants or circumstances of the event: applied phrases referring to essential participants (i.e., participants implied by the lexical meaning of the verb) are also widely attested; for example, with some motion verbs, destination of motion can only be expressed via applicativization.
- Since Tswana applicatives are obligatory applicatives, Tswana applicative constructions have no pragmatic or discursive implication.

Lookalikes and others

- Non-applicative functions of the applicative marker include a passive-like use in which instrumental adjuncts are promoted to subject role, the focalization of locatives expressing the location of the event, the expression of habituality of action at some place, and the expression of intensity of action.
- Lexicalized applicatives constitute a non-negligible proportion of the verbal lexicon of Tswana.

Abbreviations

APPL	applicative
AUX	auxiliary
CAUS	causative
clX	class (agreement pattern) X
DEM	demonstrative
EMPH	emphatic
FOC	focalization marker
FUT	future
FV	final vowel (a vowel analyzable as the inflectional ending of verbs which however is not necessarily analyzable as carrying a particular TAM value by itself)
GEN	genitive
HAB	habitual
INF	infinitive

LK	linker
LOC	locative
NEG	negation marker
oI	object index
PASS	passive
PL	plural
PRF	perfect
SG	singular
sI	subject index

Numbers between parentheses immediately after the gloss of noun forms refer to the agreement pattern (“class”) triggered by the noun form.

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9 Applicativization in Amharic

Abstract: This chapter provides a detailed description of the applicative construction and of a related non-applicative construction involving the same verbal marking in Amharic (Ethiosemitic, Ethiopia). The applicative suffixes *-ll-* and *-bb-*—benefactive and malefactive, respectively—always co-occur with object agreement suffixes which cross-reference the applied phrase. These two suffixes can be used with virtually any verb irrespective of transitivity or the lexical semantics of the verb root, presumably because any event can be potentially cast as benefiting or harming some entity. The same suffixes can also occur in a non-applicative construction, where the oblique phrase is marked with a preposition but cross-referenced on the verb as if it were an object.

1 Introduction

This chapter provides a detailed description of the applicative construction and of a related but non-applicative construction involving the same verbal marking in Amharic (Ethiosemitic, Ethiopia). Amharic, self-name [amarɨŋna] (አማርኛ), belongs to the Transversal South Ethiosemitic language group (see Figure 1) with Harari, the East Gurage languages and Argobba (Hetzron 1972: 119; Faber 1997: 11–13; Rubin 2008: 80).¹ It is spoken by approximately 31.8 million people as mother tongue in Ethiopia, and by approximately 25.1 million people as a second language (Eberhard, Simons, and Fennig 2021).² It is the working language of the federal government of Ethiopia. There are five regional dialects of Modern Amharic, namely, that of Addis Ababa, Gonder, Gojjam, Menz, and Wello (Meyer 2011; see also Zelealem Leyew 2007).

¹ Figure 1 is identical to Figure 5 in Rubin (2008: 92), which is based on Hetzron (1972). The numbers in parenthesis indicate the number of languages within the subgroup. According to the traditional classification of Ethiosemitic, there are 23 languages. Ge'ez is no longer spoken and survives only as a liturgical language of the Orthodox Christian churches of Ethiopia and Eritrea (Weninger 2011b: 1125). Argobba is severely endangered (Eberhard, Simons, and Fennig 2021) and Gafat is believed to be extinct (Weninger 2011a: 1114).

² According to Eberhard, Simons, and Fennig (2021), 14.8 million speakers are monolingual.

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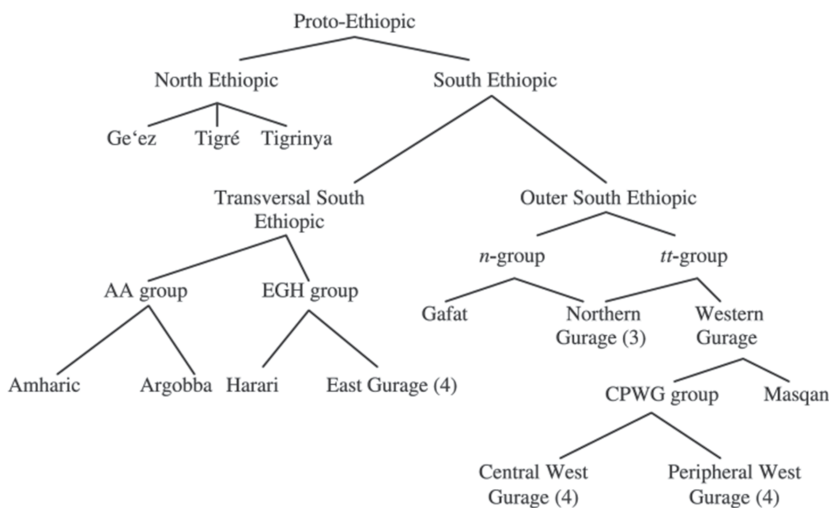


Figure 1: The Ethiosemitic language family.

The data used in this chapter is based on different sources including the author's native speaker knowledge, examples from published sources as well as corpora of naturally occurring discourse.

The chapter is organised as follows. In § 2 we provide a brief background on the morphosyntax of Amharic, followed by a discussion of the morphology (§ 3), syntax (§ 4), semantics (§ 5) of the applicative construction and of the non-applicative construction that involves the same verbal marking as the applicative construction. In § 6 we conclude with a summary of the main findings.

2 Basics of Amharic morphosyntax

2.1 Morphology

As a Semitic language, Amharic employs the word formation strategy known as *root-and-pattern* morphology particularly prevalent in the domain of verb morphology. The core semantic content of a word is signalled by the consonants, also known as 'root radicals', whereas grammatical meaning is encoded by the consonant-vowel (CV) template.

There are six major templates of the verb: perfective, imperfective, jussive, imperative, converb/gerund, and verbal noun. The most common type of roots has three consonants (triradicals). Traditionally, triradical verbs are classified into three conjugational classes known as Type A, Type B, and Type C. This classification is based on whether or not the penultimate radical of the root is geminated. In Type B verbs the radical is geminated in all templates. In Type A verbs, it is geminated in the perfec-

tive template only. In Type C verbs it is geminated in the perfective and imperfective templates. This can be seen in Table 1 for the perfective, imperfective, jussive, and converb/gerund templates using the verbs *sabbār-* ‘break’, *fəllag-* ‘search/want’ and *marrək-* ‘cause to surrender’.

Table 1: Verb templates.

Type	Perfective	Imperfective	Jussive	Converb
A	C ₁ əCC ₂ əC ₃ <i>sabbār-</i>	C ₁ əC ₂ C ₃ <i>-sabr-</i>	C ₁ C ₂ əC ₃ <i>-sbār</i>	C ₁ əC ₂ C ₃ ə <i>sabrə-</i>
B	C ₁ əCC ₂ əC ₃ <i>fəllag-</i>	C ₁ əCC ₂ ɪC ₃ <i>-fəllig</i>	C ₁ əCC ₂ ɪC ₃ <i>-fəllig-</i>	C ₁ əCC ₂ ɪC ₃ ə <i>fəlligə-</i>
C	C ₁ aCC ₂ əC ₃ <i>marrək-</i>	C ₁ aCC ₂ ɪC ₃ <i>-marrik-</i>	C ₁ aC ₂ C ₃ <i>-mark</i>	C ₁ aC ₂ C ₃ ə <i>markə-</i>

Nouns can be marked for definiteness, gender, number, and case. The definite is marked by the suffix *-u/-w* (masculine) *-wa* (feminine) but the indefinite is unmarked. The plural is marked by the suffix *-ottf*, but the singular/transnumeral is unmarked. There is differential object marking (DOM) whereby the accusative is marked (by the suffix *-n*) typically if the NP is definite/specific (see Amberber 2009). The nominative is unmarked.

Verbs are marked obligatorily for subject agreement but often optionally for object/indirect object agreement. In the perfective and converb conjugations, subject agreement consists of suffixes only, whereas in the imperfective and jussive a combination of prefixes and suffixes is used. Intransitive verbs take S NPs, transitive verbs take A and O NPs, and extended transitive verbs take A, O, and IO NPs. The basic temporal distinction is between past (perfect) and non-past (imperfect).

As the applicative construction requires object marking on the verb, it is important to be familiar with the full range of object marking (see also Haile 1970). Table 2 presents the object agreement markers in Amharic using the verb form *sabbārə* (perfective) *jisabr-* (imperfective), ‘break’, where the subject is the third person masculine singular, but the object expresses different persons, numbers and genders (e.g., *sabbārə-w* ‘he broke him/it’, *sabbārə-h* ‘he broke you’, etc.).³

³ This is not the full set of object pronominal suffixes. Thus, when the verb takes the first person singular subject marker (*-hu*), the 3rd person masculine object suffix is *-t* (as in *sabbār-hu-t* ‘I broke it’).

Table 2: Object agreement markers (with a 3SG.M subject).

	Perfective	Imperfective
3SG.M	<i>səbbərə-w</i>	<i>jisabr-əw</i>
3SG.F	<i>səbbər(*ə)⁴-at</i>	<i>jisabr-at</i>
2SG.M	<i>səbbərə-h</i>	<i>jisabr-ih</i>
2SG.F	<i>səbbərə-f</i>	<i>jisabr-if</i>
1SG	<i>səbbərə-ŋŋ</i>	<i>jisabr-əŋŋ</i>
3PL	<i>səbbər(*ə)-attəw</i>	<i>jisabr-attəw</i>
2PL	<i>səbbər(*ə)-attəh^w</i>	<i>jisabr-attəuh</i>
1PL	<i>səbbərə-n</i>	<i>jisabr-ən</i>

In the above paradigm, the subject is the 3rd person masculine singular which is realised by the suffix *-ə* in the perfective stem (*səbbər-ə*) and by the prefix *ji-* in the imperfective stem (*ji-sabr*).

2.2 Basic syntax

Amharic is a nominative-accusative language, that is to say that the subject of an intransitive clause and the subject of a transitive clause are in the nominative distinct from the object of a transitive clause which is in the accusative. As already pointed out, the nominative is not morphologically marked, whereas the accusative is marked by the suffix *-n* (*-in* after consonant final stems) typically only if the noun is definite or specific.⁵ Consider the following examples:

- (1) a. *lidʒ-u wadə bet hed-ə*
 boy-DEF.M⁶ toward home go\PFV-SBJ.3SG.M
 ‘The boy went home.’
- b. *aster lidʒ-u-n ajjə-tf-(iw)*
 Aster boy-DEF.M-ACC see\PFV-SBJ.3SG.F-OBJ.3SG.M
 ‘Aster saw the boy.’

⁴ When a vowel-initial suffix attaches to a vowel-final stem, the vowel of the latter is deleted in accordance with the vowel hiatus resolution rule of Amharic.

⁵ By the terms “definite” and “specific” we include personal pronouns, demonstratives, noun phrases with a possessive modifier, the possessive suffix, and quantifiers.

⁶ The stem glossed as ‘boy’ here actually means ‘child’, and it is the definite suffix *-u* that leads to the meaning ‘the boy’ (i.e., a more accurate gloss would be: child-DEF.M).

In (1a), the subject NP ('the boy') is unmarked for the nominative. The object NP in (1b) is marked for the accusative case by the suffix *-n*. Notice also that in (1b) the verb can optionally take object agreement marking. If we replace the definite NP in (1b) with an indefinite one, not only will the accusative case marking be unacceptable, but the verb cannot be marked for object agreement, as shown in (2):

- (2) *aster (and) lidʒ(*-in) ajjə-tf(*-iw)*
 Aster one boy-ACC see\PFV-SBJ.3SG.F-OBJ.3SG.M
 'Aster saw a/one boy.'

In addition to the direct object as shown in (2), Amharic also has what might be called "indirect" and/or "oblique" objects, typically marked by adpositions:

- (3) *aster lə-lidʒ-u məs'haf sət'tə-tf(-iw)*
 Aster to-boy-DEF.M book give\PFV-SBJ.3SG.F-OBJ.3SG.M
 'Aster gave a book to the boy.'

While the unmarked constituent order in Amharic is clearly [S/A O V], it is possible to depart from this through topicalization and focus. Furthermore, overt NPs are often omitted once introduced in discourse, and this is particularly true with the subject NP as the verb is obligatorily marked for subject agreement.

Amharic has adpositions which include both prepositions (which, in most cases are formally prefixes) and postpositions. The presence of prepositions is typologically unusual as the language is otherwise strictly head-final. The postpositions are often independent words which are historically derived from nominals. There are about 8 to 10 prepositions and about the same number of postpositions. As we will see shortly, the prepositions *bə-* and *lə-*⁷ are particularly relevant to the discussion of the applicative construction. The main adpositional meanings encoded by these prefixes are listed below.⁸

The prefix *bə-* can be used to encode a range of different meanings including Instrumental, Locational, Time, and Malefactive:

- (4) a. Instrumental: *bə-billawa* 'by a knife'
 b. Locational: *bə-gəbaya* 'at a market'
 c. Time (starting/finishing point of an event): *bə-hulət səʔat* 'at 2 o'clock'

The prefix *lə-* encodes three core meanings: Beneficiary/Goal, Reason, and Time:

⁷ With allomorphs *b-* and *l-* respectively before vowel-initial stems.

⁸ The other common prepositions with multiple meanings are: *kə-* 'from, out of, at, in, on, to, by, with', *wədə-* 'toward, into, to, about', *iskə-* 'as far as, until, to', *silə-* 'about, because of' and *ində-* 'like, as'. Most of these prepositions are traditionally (Leslau 1995: 597–616) analysed as prefixes.

- (5) a. Beneficiary/Goal
lə-lidɜ-u sət'tə-hu-t
 to-boy-DEF.M give\PFV-SBJ.1SG-OBJ.3SG.M
 'I gave it to the boy.'
- b. Reason
wətadər-ottf-u l-agər-attfəw
 soldier-PL-DEF for-country-POSS.P
jɪ-mot-all-u
 SBJ.3P-die\IPFV-AUX.NPST-SBJ.3PL
 'The soldiers (will) die for the sake of their country.'
- c. Time
lə-misa asa bəll-attf
 for-lunch fish eat\PFV-SBJ.3SG.F
 'She ate fish for lunch.'

In terms of clausal syntax more broadly, there are three types of subordinate clauses: complement, relative, and adverbial (see also Demeke 2003). Complement clauses are typically found with verbs of perception and attention (e.g., *ajjə* 'see', *səmma* 'hear'), cognition (*ammənə* 'believe', *awwək'ə* 'know'), desire (*fəllagə* 'want', *təməjɲə* 'wish'), speaking (*nəggərə* 'tell', *t'əjjək'ə* 'ask'). Such clauses are marked by the complementizer *ind(ə)-* which is attached to the verb of the complement clause as shown below:

- (6) [aster [ləmma **ində**-mət't'a] *səmma-tt]*
 Aster Lemma **comp**-arrive\PFV.SBJ.3SG.M hear\PFV-SBJ.3SG.F
 'Aster heard that Lemma has arrived.'

Another productive complementizer is *bil-* (equivalent to the English complementizer 'that'), which is historically derived from the converb form of the verb 'to say' (*alə* in the perfective).⁹ This complementizer is inflected for person, number, and gender and is often found with verbs of cognition (*assəbə* 'think') and speech (*nəggərə* 'tell'). It is commonly used to express direct and indirect speech/thought.¹⁰

- (7) a. [aster [PRO *wədə-bet i-hed-allə-h^w* **bil-a]**
 Aster to-house SBJ.1SG-go\IPFV-AUX.NPST-SBJ.1SG **say**\CNV-SBJ.3SG.F
assəb-ətt]
 think\PFV-SBJ.3SG.F
 'Aster thought that she would go home.'
 (Lit. 'Aster thought, saying: "I will go home."')

⁹ The grammaticalization of a quotative verb 'to say' into a complementizer is cross-linguistically well known (see Kuteva et al. 2019: 357–358).

¹⁰ Null arguments are marked as PRO here for expository purposes.

- b. [PRO [PRO *wadə-bet i-hed-alla-h^w* *bil-a*]
 to-house SBJ.1SG-go\IPFV-AUX.NPST-SBJ.1SG **say**\CNV-SBJ.3SG.F
assəb-əttf]
 think\PFV-SBJ.3SG.F
 ‘She thought that she would go home.’
 (Lit. ‘She thought, saying: “I will go home”.’)

Adverbial clauses can be formed by attaching various conjunctions to the verb: *silə* ‘because’, *si* ‘when’, *ində* ‘as soon as’. Here is one example:

- (8) [PRO [PRO *silə-səddəb-ə-jjn* *matta-hu-t*]
 because-insult\PFV-SBJ.3SG.M-OBJ.1SG hit\PFV-SBJ.1SG-OBJ.3SG.M
 ‘Because he insulted me, I hit him.’

The relative clause involves the use of the markers *jə-* in the perfective and *jəmm-* in the imperfective. The relative clause verb is marked for agreement with the head noun, which it precedes. Consider the following:

- (9) a. *lidz-u tilantinna mət’t’a*
 boy-DEF.M yesterday come\PFV.SBJ.3SG.M
 ‘The boy came yesterday.’
 b. *lidz-u-n ajja-hu-t*
 boy-DEF.M-ACC see\PFV-SBJ.1SG-OBJ.3SG.M
 ‘I saw the boy.’

Now consider (10), which is based on the combination of the above two clauses:

- (10) *tilantinna jə-mət’t’a-w-in lidz ajja-hu-t*
 yesterday **REL**-come\PFV.SBJ.3SG.M-DEF.M-ACC boy see\PFV-SBJ.1SG-OBJ.3SG.M
 ‘I saw the boy who came yesterday.’

Notice that the relativised verb has nominal properties in that it is marked for definiteness and accusative case. The head noun modified by the relative clause must occur without definiteness and case marking. We will examine the interaction of the relative clause with the applicative construction in § 4.4.

2.3 Valency and voice operations

There are productive valency-decreasing and valency-increasing derivations. The valency-decreasing derivations include the passive, anticausative, reflexive and reciprocal. These involve the use of the prefix *tə-*, which attaches to the transitive verb. Due

to this multifunctionality, the term MEDIO-PASSIVE may be more appropriate (than terms such as “reflexive/passive”) to refer to the prefix *tə-* (see also Meyer 2011). Here are some examples:

- (11) a. *aster dabbo-w-in k'orrat'-atf*
 Aster bread-DEF.M-ACC cut\PFV-SBJ.3SG.F
 ‘Aster cut the bread.’
 b. *dabbo-w (bə-aster) tə-k'orrat'-ə*
 bread-DEF.M by-Aster MP-cut\PFV-SBJ.3SG.M
 ‘The bread was cut (by Aster).’

The term ANTICAUSATIVE refers here to an intransitive verb that is morphosyntactically distinct from the passive and reflexive. Thus, the anticausatives *tə-səbbərə* ‘break (INTR)’, *tə-kəffətə* ‘open (INTR)’, and *tə-bəttənə* ‘scatter (INTR)’ correspond to the transitive verbs *səbbərə* ‘break’, *kəffətə* ‘open’, and *bəttənə* ‘scatter’, respectively.

While the anticausative, the passive, and the reflexive are distinct types of valency-changing alternation, they are marked by the same form. A verb so marked can be ambiguous between the anticausative, the passive, and the reflexive reading though one can force a passive reading by expressing the Agent in a *by*-phrase (Demoz 1964: 13–27; Amberber 2000, Amberber 2002: 14–25). When the prefix *tə-* is attached to the perfective verb *səkk'alə* ‘he hanged’, the reflexive form *tə-səkk'alə* ‘he hanged himself’ is derived, which can be ambiguous between the reflexive meaning ‘he hanged himself’ or the passive reading ‘he was hanged’. The reflexive reading is not universally available for all transitive verbs. Thus, the verb *k'orrat'ə* ‘he cut’ has the *tə*-stem *tə-k'orrat'ə* ‘it was cut’, but the reading is passive or anticausative rather than reflexive. On the other hand, while verbs that express activities related to parts of the body, so-called ‘self-grooming’ verbs, are typically reflexive, e.g., *tat't'əbə* (< **tə-at't'əbə*) ‘he washed himself’, *tə-latf'ə* ‘he shaved himself’, it is also possible to interpret them as passive.

Reciprocity is also expressed by the prefix *tə-* but with a special reduplicative stem of the verb. For a triradical verb, the reduplicative stem is *tə-C₁əC₂aCC₂əC₃*, e.g., *nəkkəsə* ‘bite’ → *tə-nəkkəs-u* (MP-bite.RECP\PFV-3PL) ‘they bit each other’.

The valency-increasing derivations are the causative and applicative. The causative is formed by attaching the prefix *a-* (direct causative) or *as-* (indirect causative).

- (12) a. *k'ibe-w k'allat'-ə*
 butter-DEF.M melt\PFV-SBJ.3SG.M
 ‘The butter melted.’
 b. *səwijjə-w k'ibe-w-in a-k'allat'-ə-w*
 man-DEF.M butter-DEF.M-ACC CSD-melt\PFV-SBJ.3SG.M-OBJ.3SG.M
 ‘The man melted the butter.’

Some intransitive verbs such as *tʃəffərə* ‘dance’, *zəmmərə* ‘sing’, *təjyna* ‘sleep’, *azzənə* ‘be sad’, *fərra* ‘be afraid’, which can be characterized as unergative (as opposed to unaccusative), cannot take the prefix *a-*. Such intransitive verbs take the other causative prefix, namely *as-* marking the indirect causative, e.g., *tʃəffərə* ‘dance’ → *as-tʃəffərə* ‘make someone dance’ (not **a-tʃəffərə*).

The causative of transitive verbs is formed by attaching the prefix *as-* (indirect causative). Here is an example:

- (13) a. *almaz dabbo k’orrət’-əttf*
 Almaz bread cut\PFV-SBJ.3SG.F
 ‘Almaz cut some bread.’
 b. *aster almaz-in dabbo as-k’orrət’-əttf-at*
 Aster Almaz-ACC bread CSI-cut\PFV-SBJ.3SG.F-OBJ.3SG.F
 ‘Aster made Almaz cut some bread.’

Note that the causee argument in (13b), ‘Almaz’, is marked by the accusative case suffix and is cross-referenced by the object agreement marker. If the initial object is definite/specific (*dabbo-w* ‘the bread’), it will be marked by the accusative case suffix (*-n*). However, the object agreement marker still cross-references the causee—not the initial object, as can be seen below.¹¹

- (14) *aster almaz-in dabbo-w-in as-k’orrət’-əttf-at (*-iw)*
 Aster Almaz-ACC bread-DEF.M-ACC CSI-cut\PFV-SBJ.3SG.F-OBJ.3SG.F OBJ.3SG.M
 ‘Aster made Almaz cut the bread.’

The other valency changing derivation is the applicative, which is the focus of this chapter. It should be pointed out here that the term ‘applicative’ is not commonly used in the grammatical description of Amharic or other Ethiopian languages. As far as we are aware, the term was used for the first time in Amberber (1996). This chapter will show that based on the definition provided by Zúñiga and Creissels (this volume), it is possible to identify an applicative construction in Amharic (see also Amberber 2000, 2002: 55–60; Yabe 2007: 76–85). In the following sections of the chapter, the morphology, syntax, and semantics of the applicative will be discussed in detail.

¹¹ It should be noted here that the occurrence of two objects both marked by the accusative suffix *-n* as the example shows is less preferred in actual discourse and there is a tendency for the initial object to appear as non-definite/non-specific which makes it ineligible for the accusative suffix *-n*.

3 Morphology

There are two applicative morphemes, *-ll-* and *-bb-*, which we refer to as **BENEFACTIVE** and **MALEFACTIVE** respectively. The following examples provide a minimal pair contrast between these two morphemes:

- (15) *daɲɲa-w səwijjə-w-in¹² fərrəd-u-ll-ət*
 judge-DEF.M man-DEF.M-ACC judge\PFV-SBJ.3POL-**APPL**-OBJ.3SG.M
 ‘The judge passed judgment in favour of the man.’ (i.e., the man was acquitted)

- (16) *daɲɲa-w səwijjə-w-in fərrəd-u-bb-ət*
 judge-DEF.M man-DEF.M-ACC judge\PFV-SBJ.3POL-**APPL**-OBJ.3SG.M
 ‘The judge passed judgment against the man.’ (i.e., the man was convicted)

The applicative suffixes always co-occur with object agreement suffixes which cross-reference the applied phrase. Thus, in the above examples, *-ll-* (benefactive) and *-bb-* (malefactive) are followed by the object agreement suffix which cross-references the applied phrase (‘the man’).

Notice that the applied phrase takes the accusative case marking *-n* consistent with the differential object marking phenomenon noted earlier (§ 2.1).

It is important to note here that the suffixes *-ll-* and *-bb-* can also occur in a non-applicative construction where the oblique phrase is marked with a preposition but cross-referenced as if it were an object. To distinguish this usage of the suffixes from their applicative function, we use the term “oblique cross-reference” (OCR)¹³. Thus, consider the following:

- (17) *daɲɲa-w lə-səwijjə-w(*-in) fərrəd-u-ll-ət*
 judge-DEF.M **for**-man-DEF.M-ACC judge\PFV-SBJ.3POL-**OCR**-OBJ.3SG.M
 ‘The judge passed judgment in favour of the man.’ (= ‘the man was acquitted.’)

- (18) *daɲɲa-w bə-səwijjə-w(*-in) fərrəd-u-bb-ət*
 judge-DEF.M **on**-man-DEF.M-ACC judge\PFV-SBJ.3POL-**OCR**-OBJ.3SG.M
 ‘The judge passed judgment against the man.’ (= ‘the man was convicted.’)

Notice the formal similarity between the prepositions *lə-* ‘for’ and *bə-* ‘on’, on the one hand and the applicative/oblique cross-reference markers *-ll-* and *-bb-* with identical consonants in each pair on the other. The proper analysis of this similarity is controver-

¹² The form *səwijjəw* consists of the “singulative” morpheme *-jjə*, which is used with some nouns such as ethnic names and the generic nouns referring to people, *səw* ‘man/person’, *set* ‘woman’ (Meyer 2011: 1192).

¹³ I thank the editors of this volume for suggesting I use the term “oblique cross-reference” (OCR) here as distinct from “applicative” (APPL).

sial. As Kramer (2014) pointed out, there are several possible hypotheses, including: that these markers are part of a complex agreement morpheme (Mullen 1986; Amberber 1996), that they are incorporated prepositions (Yabe 2007), or that they are applicative heads (Demeke 2003). The arguments for or against these hypotheses are often theory-internal. For the present purposes, we analyse *-ll-* and *-bb-* as applicative markers when they occur in constructions such as (13) and (14), and will be largely agnostic as to the proper characterisation of their formal similarity with the prepositions *lā-* and *bā-*.

While the term “malefactive” is appropriate for the meaning in (16)/(18), the applicative suffix *-bb-* can also encode a range of other meanings, including locational and instrumental, similar to what is found in the Gumer language (Völlmin 2010).

There are no serial verbs in Amharic, but there are converbs which are used in clause chaining constructions, as already mentioned above. Converbs can take the applicative morphemes as well as the full range of derivational and inflectional suffixes except for tense/aspect inflection. Thus, consider the following example:

- (19) *indzāra lā-lidz-e gaggar-hu*
 injera for-child-1.POSS bake\PFV-SBJ.1SG
 ‘I baked injera for my child.’

In (19) the Beneficiary of the event (of baking) is expressed with the preposition *lā-* ‘for’. In (20) below, the event of ‘baking’ occurs as a sub-event in a clause chain that involves the use of the converb:

- (20) *indzāra lā-lidz-e gagirr-e i-hed-allā-hu*
 injera for-child-1.POSS bake\CNV-SBJ.1SG SBJ.1SG-go\IPFV-AUX.NPST-SBJ.1SG
 ‘Having baked injera for my child, I (will) leave.’

In (21) below, the converb occurs with the oblique cross-reference suffix cross-referencing the Beneficiary argument ‘my child’:

- (21) *indzāra lā-lidz-e gagirr-e-ll-ət*
 injera for-child-1.POSS bake\CNV-SBJ.1SG-OCR-OBJ.3SG.M
i-hed-allā-hu
 SBJ.1SG-go\IPFV-AUX.NPST-SBJ.1SG
 ‘Having baked injera for my child, I (will) leave.’

The converb is productively used to represent a series of events in a clause chain (see Meyer 2012; Amberber, in preparation). Here is another example:

- (22) *māsob kəft-o dabbo wəssəd-ə*
 basket open\CNV-SBJ.3SG.M bread take\PFV-SBJ.3SG.M
 ‘Having uncovered the basket, he took bread.’

The converb *kəft-o* ‘having opened’ is used here as a subordinate clause. A characteristic property of the converb in Amharic is that it cannot be marked for tense/aspect and thus it is arguably not fully verbal. Now consider (23) where the converb takes the applicative suffix:

- (23) *məsob kəft-o-ll-ət* *dabbo wəssəd-ə*
 basket open\CNV-SBJ.3SG.M-APPL-OBJ.3SG.M bread take\PFV-SBJ.3SG.M
 ‘Having uncovered the basket for him, he took bread.’

Unlike in (22), in (23) the Agent that opens the basket is not the same as the Agent that takes the bread. Someone X opened the basket for the benefit of someone Y where the latter took the bread. To make the distinction clearer, we can use overt NPs as follows:

- (24) *ləmma məsob kəft-o* *dabbo wəssəd-ə*
 Lemma basket open\CNV-SBJ.3SG.M bread take\PFV-SBJ.3SG.M
 ‘Lemma, having uncovered the basket, he took (some) bread.’

- (25) *ləmma məsob kəft-o-ll-ət* *ali dabbo*
 Lemma basket open\CNV-SBJ.3SG.M-APPL-OBJ.3SG.M Ali bread
wəssəd-ə
 take\PFV-SBJ.3SG.M
 ‘Lemma having uncovered the basket for him, Ali took (some) bread.’

Interestingly, the applicative / oblique cross-reference suffix is also used to form modal constructions of necessity and obligation. In such cases, the composite of the verb *allə* ‘to exist’ and the suffix *-bb-* and object suffixes are used as shown below:

- (26) *mədan kə-fəlləg-ə* *hakim_bet məhed*
 cure\VN if-want\PFV-SBJ.3SG.M hospital go\VN
allə-bb-ət
 exist\PFV.SBJ.3SG.M-APPL-OBJ.3SG.M
 ‘If he wants to be cured/be well, he must go to the hospital.’

This grammaticalized use of the APPL/OCR morphemes with the verb *allə* ‘to exist’ will not be examined further in this chapter (but see Meyer 2012; see also Ahland 2009 for the grammaticalization of the possessive construction).

We will now investigate the syntactic structure of the constructions involving the APPL/OCR markers in detail.

4 Syntax

4.1 The syntactic behaviour of applied phrases and cross-referenced obliques

Before examining the syntactic status of the applied phrase or cross-referenced oblique, let us first look at the base construction (BC). Consider the following example:

- (27) *aster bə-birtʃikʰkʰo wətət tʰətʰa-ttʃ*
 Aster with-glass milk drink\PFV-SBJ.3SG.F
 ‘Aster drank milk from a glass.’¹⁴

The verb *tʰətʰa* ‘to drink’ takes two arguments – the Agent (‘Aster’) and the Theme (‘milk’). The phrase ‘with a glass’ is clearly an adjunct as it is not required by the argument structure of the verb. Now, consider the applicative construction below:

- (28) *aster birtʃikʰkʰo-w-in wətət tʰətʰa-ttʃ-ibb-ət*
 Aster glass-DEF.M-ACC milk drink\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 ‘Aster drank milk from the glass.’

Notice that the applied phrase is definite and is marked by the accusative case. The verb is marked by the applicative suffix and object agreement that agrees with the applied phrase. All these formal properties of the construction are obligatory. For example, if the applied phrase is indefinite the resulting construction will be ungrammatical, as shown below:

- (29) **aster birtʃikʰkʰo wətət tʰətʰa-ttʃ-ibb-ət*
 Aster glass milk drink\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M

The applicative marker and the object agreement suffix are both obligatory. If they are missing, the resulting construction will be ungrammatical:

- (30) **aster birtʃikʰkʰo-w-in wətət tʰətʰa-ttʃ*
 Aster glass-DEF.M-ACC milk drink\PFV-SBJ.3SG.F

Thus, in Amharic the construction illustrated by example (28) satisfies the definition provided in Zúñiga and Creissels (this volume) regarding the AC and its relationship with the BC.

¹⁴ While the Amharic preposition *bə-* means ‘with’, ‘by’, here it is translated into idiomatic English as ‘from’. The preposition *kə-* is equivalent to ‘from’ but cannot be used in this context.

- (31) (i) The predicates in both constructions are built upon the same root, but the one in the AC bears additional overt marking that distinguishes it from the one in the BC.
 (ii) The participant encoded as S or A in the BC appears as S or A in the AC.
 (iii) The AC includes a noun phrase in a role other than S or A, the applied phrase (AppP), which refers to a participant that either requires a non-core coding different from its coding in the AC or cannot be expressed at all in the BC.

The applicative so defined can be derived from virtually any verb irrespective of transitivity. In the following examples, we see the (benefactive) applicative derived from intransitive and transitive verbs:

- (32) a. *aster rot'-attf*
 Aster run\PFV-SBJ.3SG.F
 'Aster ran.'
 b. *aster rot'-attf-ill-ət*
 Aster run\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster ran for him.'
- (33) a. *aster dabbo k'orrət'-attf*
 Aster bread cut\PFV-SBJ.3SG.F
 'Aster cut some bread.'
 b. *aster dabbo k'orrət'-attf-ill-ət*
 Aster bread cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster cut some bread for him.'

Now consider the following example with the ditransitive verb 'to give':

- (34) a. *aster lə-lidz-u məs'haf sət'tə-tf(-iw)*
 Aster to-boy-DEF.M book give\PFV-3SG.F-OBJ.3SG.M
 'Aster gave a book to the boy.'
 b. *aster lə-lidz-u məs'haf sət'tə-tf-ill-ət*
 Aster to-boy-DEF.M book give\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster gave a book (to someone) for the benefit of the boy.'

The verb 'to give' takes three arguments, and in (34a) we see the relevant arguments occurring as subject (the Giver), indirect object (the Recipient), and direct object (the Gift). Optional object agreement in (34a) is with the Recipient. In (34b), on the other hand, where the verb takes the applicative suffix, the Recipient is implicit (someone

unspecified). The phrase ‘the boy’ is now a non-core argument (Beneficiary) and is cross-referenced by the APPL suffix and object agreement.¹⁵

It is very important to keep in mind that in Amharic natural discourse the use of overt NPs to express arguments is very limited. Most often the subject, but also other grammatical functions are left implicit. Sometimes this is because these implicit arguments are cross-referenced by agreement morphology on the verb. This can be seen in the following examples based on (15) and (16) but without the NP arguments:

- (35) *fərrəd-u-ll-ət*
 judge\PFV-SBJ.3.POL-APPL-OBJ.3SG.M
 ‘(They) passed judgment in favour of the him.’ (i.e., he was acquitted)

- (36) *fərrəd-u-bb-ət*
 judge\PFV-SBJ.3.POL-APPL-OBJ.3SG.M
 ‘(They) passed judgment against him.’ (i.e., he was convicted)

None of the arguments of the verb ‘to judge’ are expressed by overt NPs.

It is important to note that there can only be one applicative and/or oblique cross-reference marker in a verb (see also Kramer 2014). Consider the following example:

- (37) *aster lə-ləmma dabbo-w-in bə-billawa-w*
 Aster for-Lemma bread-DEF.M-ACC with-knife-DEF.M
*k’orrət’-əttf-ill-(*ibb)-ət*
 cut\PFV-SBJ.3SG.F-OCR-OCR-OBJ.3SG.M
 ‘Aster cut the bread with the knife for Lemma.’

Thus, while there are two peripheral arguments which can potentially be encoded as a cross-referenced oblique or as an applied object, only one of them can do so at a time. Note also that when there are two peripheral arguments, the Beneficiary and the Instrument, the former should occur first (or higher) in the structure as the contrast in (38a) and (38b) shows:¹⁶

¹⁵ I’m grateful to Denis Creissels for pointing out that the lack of ambiguity in (34b), that is, the fact that the verbal suffix *ill-* can only refer to the Beneficiary, has crucial implications in that the construction should be regarded as an instance of a D-applicative (“dative” applicative) distinct from a P-applicative’. See Zúñiga and Creissels (this volume) for discussion of these terms, which are based on Creissels (forthcoming).

¹⁶ See McGinnis (2008) for one formal account of the applicative construction, where the author argues for the structurally higher position of the benefactive applied phrase.

- (38) a. **aster bə-billawa-w lə-ləmma dabbo-w-in*
 Aster with-knife-DEF.M for-Lemma bread-DEF.M-ACC
k'orrət'-əttf-ill-ət
 cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
- b. *aster lə-ləmma bə-billawa-w dabbo-w-in*
 Aster for-Lemma with-knife-DEF.M bread-DEF.M-ACC
k'orrət'-əttf-ill-ət
 cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut the bread with the knife for Lemma.'

Now, if we replace the Beneficiary in (37) with the Instrument and use *-bb-* to refer to the instrumental phrase, the resulting construction is ungrammatical:

- (39) **aster lə-ləmma dabbo-w-in bə-billawa-w*
 Aster for-Lemma bread-DEF.M-ACC with-knife-DEF.M
k'orrət'-əttf-ibb-ət
 cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M

The instrumental phrase should precede the Beneficiary if the oblique cross-reference suffix *-bb-* refers to the resulting structure. Thus, (40) is better than (39):

- (40) ?*aster bə-billawa-w lə-ləmma dabbo-w-in*
 Aster with-knife-DEF.M for-Lemma bread-DEF.M-ACC
k'orrət'-əttf-ibb-ət
 cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut the bread with the knife for Lemma.'
 (Lit. 'Aster, with the knife, she cut the bread with it for Lemma.')

This sentence, while not ungrammatical, sounds awkward. In the more felicitous version of the sentence, the instrumental phrase occurs *without* the Beneficiary:

- (41) *aster bə-billawa-w dabbo-w-in k'orrət'-əttf-ibb-ət*
 Aster with-knife-DEF.M bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut the bread with the knife.'
 (Lit. 'Aster, with the knife, she cut the bread with it')

This seems to be due to information structure, where the APPL/OCR suffix is partially used to focus on a constituent and to achieve maximum prominence, the instrumental phrase is not only fronted but also, ideally, occurs without another peripheral phrase (see Zúñiga and Creissels, this volume, for discussion on fronted and focused constituents in Western Mayan languages). In fact, we can also find the cross-referenced oblique at a clause-initial position displacing the subject:

- (42) *bə-billawa-w aster dabbo-w-in k'orrət'-əttf-ibb-at*
 with-knife-DEF.M Aster bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut the bread with the knife.'
 (Lit. 'With the knife, Aster cut the bread with it.')

Note that if the speaker wants to focus on any of the non-subject arguments, they can omit the subject and place the focussed argument in clause-initial position as can be seen below:

- (43) *bə-billawa-w dabbo-w-in k'orrət'-əttf-ibb-at*
 with-knife-DEF.M bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'She cut the bread with the knife.'
 (Lit. 'With the knife, she cut the bread with it.')

The motivation for focus is also implicated in the interaction between the relative clause and the applicative construction, as we will see in § 4.4.

4.2 On the stacking/combination of voice operations in the applicative construction

Applicativisation is allowed in the context of valency-encoding derivations including passivisation, anticausativisation, causativisation, and reflexives/reciprocals. For the sake of space, we discuss two such derivations: passivisation and causativisation.

4.2.1 Passivisation

In the following examples, (44a) shows the simple passive whereas (44b) and (44c) show the applicativised passive with the malefactive and benefactive suffixes respectively:

- (44) a. *dabbo-w (bə-aster) tə-k'orrət'-ə*
 bread-DEF.M by-Aster MP-cut\PFV-SBJ.3SG.M
 'The bread was cut (by Aster).'
 b. *dabbo-w tə-k'orrət'-ə-bb-at*
 bread-DEF.M MP-cut\PFV-SBJ.3SG.M-APPL-OBJ.3SG.F
 'The bread was cut to her detriment (by someone).'
 (or 'it was cut accidentally by her')
 c. *dabbo-w tə-k'orrət'-ə-ll-at*
 bread-DEF.M MP-cut\PFV-SBJ.3SG.M-APPL-OBJ.3SG.F
 'The bread was cut for her benefit (by someone).'
 (or 'it was possible for her to cut it')

In (44b) the malefactive applicative can have a reading whereby the bread was cut by accident and as such it is not necessarily the case that a different Agent is involved. Thus, Aster didn't mean to cut the bread, but she did so accidentally. Likewise, the benefactive use doesn't necessarily implicate the involvement of a different Agent who cut the bread for the benefit of someone. It could be the case that the thing to be cut ('the bread' in the example) was particularly hard or difficult and the Agent eventually managed to cut it.

4.2.2 Causativisation

In (45a) we see the simple causative and in (45b) and (45c) we show the applicativised causatives:

- (45) a. *aster dabbo-w-in as-k'orrət'-ətf*
 Aster bread-DEF.M-ACC CSI-cut\OCR-SBJ.3SG.F
 'Aster made the bread cut (by someone).'
- b. *aster dabbo-w-in as-k'orrət'-ətf-ill-ət*
 Aster bread-DEF.M-ACC CSI-cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster made the bread cut for him (by someone).'
- c. *aster dabbo-w-in as-k'orrət'-ətf-ibb-ət*
 Aster bread-DEF.M-ACC CSI-cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster made the bread cut against him (by someone).'

Notice that neither the causee nor the Beneficiary/Maleficiary are expressed by overt NPs. In (45a), the verb is more appropriately understood as the causative of the passive: 'the bread was made cut'. The original agent ('causee') can be expressed by a prepositional phrase: *bə-səw* 'by someone'. In (45b) and (45c) the grammatical features of the Beneficiary/Maleficiary (person, number, gender) are indicated by the agreement morphology on the verb. These arguments can be overtly expressed as can be seen in (45')

- (45') *aster dabbo-w-in lə-lidz-u as-k'orrət'-ətf-ill-ət*
 Aster bread-DEF.M-ACC for-child-DEF.M CSI-cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster made the bread cut for the boy (by someone).'

4.3 On case and agreement in the applicative construction

We have seen that the applicative derivation advances an oblique argument into the core, placing it as the direct object of the clause. It thus appears that, in their applicative use, the APPL/OCR markers enable a non-core terms to bear the accusative case marker *-n*. Consider the following examples, adapted from Hetzron (1970: 309).¹⁷

- (46) a. *səw-ottf-u bə-gzijabher j-amn-all-u*
 men-PL-DEF in-God SBJ.3PL-believe\IPFV-AUX-SBJ.3PL
 ‘The people believe in God.’
- b. *səw-ottf-u bə-gzijabher j-amn-u-bb-ət-all*
 men-PL-DEF in-God SBJ.3PL-believe\IPFV-SBJ.3PL-OCR-OBJ.3M-AUX
 ‘The people believe in God.’
- c. *səw-ottf-u igzijabher-in j-amn-u-bb-ət-all*
 men-PL-DEF God-ACC SBJ.3PL-believe\IPFV-SBJ.3PL-APPL-OBJ.3M-AUX
 ‘The people believe in God.’

We assume that the verb ‘to believe’ takes two arguments: the believer (Experiencer) and the entity believed in (Theme). The Theme occurs as a prepositional phrase, ‘in God’, in both (46a) and (46b). The only difference between the two is that in the latter the verb is marked by the oblique cross-reference suffix, *-bb-* and object agreement *-ət*. In (46c), on the other hand, the Theme is marked by the accusative case *-n* like any other direct object and *-bb-* here functions as an applicative marker.

Interestingly, Hetzron (1970: 309) suggests that the construction in (46c) has “a clearly stylistic euphonic function.” The idea is that (46c) is preferred to (46b) to avoid too many [b] sounds, “the abundance of [b]’s in *bə-* and later in *-bb-* is thus avoided by replacing the first one with *-n*” (p. 309). Hetzron (1970: 309–310) further argues that the construction in (46c) is possible only with certain types of ‘complements’; “the complement must be an organic, not only incidental, part of the content of the verb” (Hetzron 1970: 309). Thus, consider the following example:

- (47) *bə-məkina-w mət’t’a-ttf-ibb-ət*
 with-car-DEF.M come\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 ‘She came with the car.’

According to Hetzron (1970: 309), *məkinaw* ‘the car’ in the prepositional phrase cannot be marked by the accusative suffix *-n* because “the presence of an instrument does not

¹⁷ The interlinear glosses have been added and the transcription is also modified here to be consistent with the IPA.

necessarily follow from the content of the verb ‘come’.” Thus, according to Hetzron (1970), (48) below, which is the applicative version of (45), would be ungrammatical:

- (48) *məkina-w-in mət't'a-tt(-ibb-ət)*
 car-DEF.M-ACC come\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 ‘She came with the car.’

While it is true that not all types of non-core terms can be advanced by the applicative derivation in all contexts, I have found no evidence that (48) is ungrammatical. Perhaps there is more tolerance for constructions such as (48) than was possible at the time of Hetzron’s (1970), a topic for a detailed diachronic investigation.

So far in our examination of the constructions involving an APPL/OCR marker, we have shown the conditions under which the suffixes, *-ll-*, *-bb-* and the following agreement suffixes, are obligatory on the verb. Thus, consider the following:

- (49) *aster bə-billawa-w dabbo k'orrət'-əttf(-ibb-ət)*
 Aster with-knife-DEF.M bread cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 ‘Aster cut some bread with the knife.’

- (50) *aster billawa-w-in dabbo k'orrət'-əttf*(-ibb-ət)*
 Aster knife-DEF.M-ACC bread cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 ‘Aster cut some bread with the knife.’

In (49) we observe that when the Instrument occurs in a prepositional phrase headed by *bə-* ‘with’, the oblique cross-reference marker is optional. On the other hand, in (50) we see that when the Instrument is marked by the accusative case and occurs without the preposition *bə-*, the applicative suffix is required.

4.4 The constructions involving an APPL/OCR marker in the context of relativisation

Another area of the grammar where the applicative suffix is obligatory is relativisation. Consider once again (50) above. Any of the arguments can be modified by a relative clause. The interaction between the relative clause and the applicative shows that relativisation is used to focus on an argument (cf. Schachter 1973). In (51) below we see that the Theme argument ‘bread’ is modified by the relative clause, whereas in (52) the Instrument argument ‘the knife’ is modified by the relative clause:

- (51) *aster bə-billawa*¹⁸ *jə-k'orrət'-ətt*(-iw)* *dabbo*
 Aster with-knife REL-cut\PFV-SBJ.3SG.F-OBJ.3SG.M bread
 'The bread which Aster cut with a knife.'
- (52) *aster dabbo* *jə-k'orrət'-ətt*(-ibb-ət)* *billawa*
 Aster bread REL-cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M knife
 'The knife with which Aster cut some bread.'

The crucial observation is that with the relative clause, the applicative suffix and the associated object agreement are obligatory. Interestingly, the applicative suffix will be required even when the associated phrase does not have the preposition *bə* 'with'. Thus, in (53a) the goal/destination of the going event occurs as the prepositional phrase with the preposition *wadə* 'to', 'towards'. Likewise, in (54a) the source/location of the event occurs as a prepositional phrase with *kə* 'from'. In both (53b) and (54b) the verb is relativised to modify the noun *kətəma* 'town':

- (53) a. *lidɜ-u wadə-kətəma hed-ə*
 boy-DEF.M to-town go\PFV-SBJ.3SG.M
 'The boy went to town.'
 b. *lidɜ-u jə-hed-ə-bb-ət kətəma*
 boy-DEF.M REL-go\PFV-SBJ.3SG.M-APPL-OBJ.3SG.M town
 'The town where the boy went to.'
- (54) a. *lidɜ-u kə-kətəma mət't'-a*
 boy-DEF.M from-town come\PFV-SBJ.3SG.M
 'The boy came from (the) town.'
 b. *lidɜ-u jə-mət't'-a-bb-ət kətəma*
 boy-DEF.M REL-come\PFV-SBJ.3SG.M-APPL-OBJ.3SG.M town
 'The town from which the boy came.'

Again, the suffix *-bb-* and the associated object agreement are obligatory on the relativised verbs. Notice, however, that the suffix *-bb-* has no formal affinity with the prepositional elements *wadə* 'to', *kə* – 'from'.

¹⁸ There is a slight preference for the noun in the instrumental phrase to occur as indefinite/non-specific ('a knife' rather than 'the knife').

5 Semantics

5.1 The lexical semantics of the verb root

It is important to note that virtually any verb can take the benefactive/malefactive applicative morphemes. From a broad semantic and pragmatic perspective this is not surprising, because any event can be cast as either benefiting someone/something or harming someone/something. Consider for example the event depicted by the verb *zənnəbə* ‘to rain’ in (55):

- (55) *zənnəb-ə*
rain\PFV-SBJ.3SG.M
‘It rained.’

The event encoded by the verb *zənnəbə* ‘to rain’ can be cast not as a neutral event but rather as an event with either positive or negative consequences for someone. While these consequences can be left unmarked and inferred contextually, it is also possible to encode them explicitly through the applicative construction as follows:

- (56) a. *zənnəb-ə-ll-ət*
rain\PFV-SBJ.3SG.M-APPL-OBJ.3SG.M
‘It rained for him.’ (i.e., to his benefit)
b. *zənnəb-ə-bb-ət*
rain\PFV-SBJ.3SG.M-APPL-OBJ.3SG.M
‘It rained on him.’ (i.e., to his detriment)

There is some evidence to support this semantic motivation for the applicative. As we saw, the applicative construction normally involves the presence of one of the two applicative suffixes *-bb-* or *-ll-* plus the object suffixes. However, interestingly, in some cases the verb may occur without the applicative suffix. Consider the following examples with the verb *motə* ‘to die’:

- (57) a. *zəməd mot-ə*
relative die\PFV-SBJ.3SG.M
‘A relative died.’
b. *aster-(in) zəməd mot-ə-bb-at*
Aster-ACC relative die\PFV-SBJ.3SG.M-APPL-OBJ.3SG.F
Lit. ‘A relative (of hers) died on Aster.’
c. *aster-(in) zəməd mot-at*
Aster-ACC relative die\PFV-SBJ.3SG.M-OBJ.3SG.F
Lit. ‘A relative (of hers) died on Aster.’

In (57a) the verb is used in a typical intransitive frame with one argument. However, a peripheral argument can be introduced as in (57b) with the applicative suffix *-bb-* and object agreement that cross-references the peripheral argument. Interestingly, the applicative suffix *-bb-* can be omitted without affecting the meaning as can be seen in (57c). This is curious because, as we have seen so far, a phrase that expresses a peripheral semantic role is cross-referenced by the applicative suffix and the associated object agreement marker. In (57c) we see that it is possible to use the object agreement suffix only to derive the same meaning as the applicative marked verb. What might be the reason for this? One possibility is that when the event in question is construed as *obviously* adversative, such as the death of a relative, the requirement that the *-bb-* suffix should be present is relaxed. Thus, (55c) may be regarded as a syntactic lookalike of the applicative (Zúñiga & Creissels, this volume).

Many other verbs behave in a similar way. Consider for example the verb *t'əffa* 'be lost, disappear' in (58):

- (58) a. *gənzəb t'əffa*
 money disappear\PFV.SBJ.3SG.M
 'Money is lost.'
- b. *aster-(in) gənzəb t'əffa-bb-at*
 Aster-(ACC) money disappear\PFV.SBJ.3SG.M-APPL-OBJ.3SG.F
 'Aster lost some money.' (Lit. 'Some money disappeared against Aster.')
- c. *aster-(in) gənzəb t'əffa-t*
 Aster-ACC money disappear\PFV.SBJ.3SG.M-OBJ.3SG.F
 'Aster lost some money.' (Lit. 'Some money disappeared Aster.')

Again in (58c) the construction does not have the applicative suffix, presumably because the loss of property is construed as obviously adversative and thus obviating the need to mark the verb with the applicative affix *-bb-* which would otherwise be required to mark the malefactive applicative. This semantic motivation can be seen clearly when we compare the verb *sərrək'ə* 'to steal' with the verb *wəssədə* 'to take' (examples from Hetzron 1970: 315):

- (59) *and leba gənzəb sərrək'-ə-w*
 one/a thief money steal\PFV-SBJ.3SG.M-OBJ.3SG.M
 'One/a thief stole money from him.'
- (60) *and leba gənzəb wəssəd-ə-bb-at*
 one/a thief money take\PFV-SBJ.3SG.M-APPL-OBJ.3SG.M
 'One/a thief took money from him.'

Again, the intuition is that with the verb *sərrək'ə* 'to steal' the verb is not marked by the malefactive applicative since being a victim of a theft is clearly not a good thing. On the

other hand, the verb *wəssədə* ‘to take’ is neutral as to intent, thus is explicitly marked for the malefactive. In fact, if we replace the applicative with the simple object agreement in (60), the result is an ungrammatical sentence:

- (61) **and leba gənzəb wəssəd-ə-w*
 one/a thief money take\PFV-SBJ.3SG.M-OBJ.3SG.M

The sentence improves in grammaticality if we also omit the object marker, but then the resulting structure simply means ‘the thief took money’ without any reference to the source of the money:

- (62) *and leba gənzəb wəssəd-ə*
 one/a thief money take\PFV-SBJ.3SG.M
 ‘One/a thief took money.’

As Hetzron (1970: 315) insightfully observed, the sentence with the verb ‘to take’ while pragmatically implying an act of theft, this is not necessarily the case as “[t]he thief might have taken the money quite ‘unprofessionally’, as a legitimate act by a man who also happens to be a thief.”

Note that the meaning of the applicative suffix (whether it is clearly benefactive or malefactive) may depend on real world knowledge. It is not hard to imagine that even an obviously adversative event such as dying can, in certain contexts, be cast as a positive act. Thus, we find many examples in religious as well as secular texts where the verb *motə* ‘to die’ takes the benefactive applicative. Here is one example (from the HaBiT database).¹⁹

- (63) ክርስቶስ ቤተክርስቲያንን ስለወደዳት
kiristos betəkristijan-in silə-wəddəd-at
 Christ church-ACC because-love\PFV.SBJ.3SG.M-OBJ.3SG.F
 ሞተላት።
mot-ə-ll-at
 die\PFV-SBJ.3SG.M-APPL-OBJ.3SG.F
 ‘Because Christ loved the church, he died for her [the church].’

The event of dying here is cast as a positive event and makes sense in the context of a specific doctrine. Similarly, the benefactive interpretation of a soldier dying in the act of defending their country derives its meaning from a particular patriotic discourse.

¹⁹ The Amharic corpus in the HaBiT database is made up of text collected from the internet and has approximately 26 million words. For details, see Rychlý and Suchomel (2016). Here and elsewhere the original data is in Amharic orthography (Fidel) and is reproduced here for authenticity. I have provided the IPA transcription, the interlinear glosses, and the English translation.

5.2 Semantic roles that can be expressed by applied phrases or cross-referenced obliques

For the present purposes, following Zúñiga and Creissels (this volume) we distinguish between three types of semantic roles: central or maximally involved (Agents, Forces, Themes, Patients), peripheral (Comitative, Instruments, Beneficiaries), and intermediate (Sources, Goals, Recipients, Experiencers). As Zúñiga and Creissels point out, there is a cross-linguistic tendency for maximally involved or central roles to be expressed as core arguments in the syntax, whereas peripheral roles are often expressed as obliques or adjuncts. Interestingly, there is also “a cross-linguistic tendency for ACs to work on peripheral roles; Comitatives, Instruments, and Beneficiaries are indeed the most common roles with applicatives worldwide” (Zúñiga and Creissels, this volume). With this background, let us examine closely the range of semantic roles involved in the applicative construction in Amharic. Consider a typical transitive verb *k’orrətə* ‘to cut’:

- (64) *aster dabbo-w-in k’orrət’-əttf(-iw)*
 Aster bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-OBJ.3SG.M
 ‘Aster cut the bread.’

In (64) all the required arguments of the verb ‘to cut’ are realised in the syntax: the Agent as the subject and the Theme as the direct object. As the object is definite it is marked by the accusative case morpheme *-n*. Neither of these core arguments can be applicativised consistent with the cross-linguistic profile of the AC mentioned above (but see the discussion on passives in § 4.2.1).

Now, a peripheral argument such as the instrument used to carry out the event of cutting, can be introduced as an adjunct phrase as in (65):

- (65) *aster dabbo-w-in bə-billawa k’orrət’-əttf(-iw)*
 Aster bread-DEF.M-ACC with-knife cut\PFV-SBJ.3SG.F-OBJ.3SG.M
 ‘Aster cut the bread with a knife.’

While the Theme object typically precedes the adjunct, the order is flexible, as can be seen below:

- (66) *aster bə-billawa dabbo-w-in k’orrət’-əttf(-iw)*
 Aster with-knife bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-OBJ.3SG.M
 ‘Aster cut the bread with a knife.’
 (Lit. ‘Aster, with a knife, cut the bread.’)

Now consider the same sentence, but with the verb taking the APPL/OCR suffix and the object agreement cross-referencing the Instrument:

- (67) *aster bə-billawa-w dabbo-w-in k'orrət'-əttf-ibb-ət*
 Aster with-knife-DEF.M bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut the bread with the knife.'
 (Lit. 'Aster, with the knife, she cut the bread with it.')

The instrumental phrase in (67) has two key properties: (a) it must be definite and (b) it must precede the theme argument. If either of these requirements is not met, the construction becomes ill-formed, namely when the instrumental phrase is indefinite (68):

- (68) **aster bə-billawa dabbo-w-in k'orrət'-əttf-ibb-ət*
 Aster with-knife bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M

and when the Theme precedes the instrumental phrase (69):

- (69) **aster dabbo-w-in bə-billawa-w k'orrət'-əttf-ibb-ət*
 Aster bread-DEF.M-ACC with-knife-DEF.M cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M

Now consider the following construction with the instrument coded as an applied phrase:

- (70) ?*aster billawa-w-in dabbo-w-in k'orrət'-əttf-ibb-ət*
 Aster knife-DEF.M-ACC bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster cut the bread with the knife.'
 (Lit. 'Aster, with the knife, she cut the bread with it.')

While (70) is not ungrammatical, it sounds awkward, presumably because both the applied phrase ('the knife') and the Theme argument ('the bread') are marked by the accusative case. This awkwardness disappears when the Theme argument is expressed as an indefinite noun phrase thus making it ineligible for the accusative case:

- (71) *aster billawa-w-in dabbo k'orrət'-əttf-ibb-ət*
 Aster knife-DEF.M-ACC bread cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster cut a bread with the knife.'
 (Lit. 'Aster, the knife, she cut a bread with it.')

Note, crucially, that it is only the Theme argument that can occur as an indefinite noun phrase. The applied phrase cannot be indefinite, as the ungrammatical structure in (72) shows:

- (72) **aster billawa dabbo-w-in k'orrət'-əttf-ibb-ət*
 Aster knife bread-DEF.M-ACC cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M

One question is how to account for the contrast between the awkward (70), where both the applied phrase and the Theme argument are marked as accusative, and (71), where only the applied phrase is marked accusative. This may be due to information structure, in that the applied phrase is the main topic of conversation and thus it displaces the object in terms of definiteness and specificity. This may also account for the fact that the verb can only be marked either for object agreement (agreeing with the theme argument of the verb), (73a) or oblique agreement (agreeing with the Beneficiary/Maleficiary phrase), (73b), but never for both object and oblique agreement, (73c):

- (73) a. *k'orrät'-əttf-iw*
 cut\PFV-SBJ.3SG.F-OBJ.3SG.M
 'She cut it.'
- b. *k'orrät'-əttf-ill-ət*
 cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'She cut [it] for him.'
- c. **k'orrät'-əttf-iw-ill-ət*
 cut\PFV-SBJ.3SG.F-OBJ.3SG.M-APPL-OBJ.3SG.M
 (Intended: 'She cut it for him.')

In discussing the semantics of the applicative morphemes in Gumer, Völlmin (2010: 321) points out that "[t]he semantics of a verb may restrict the use of some of these [applicative] suffixes to very specific contexts or meanings, but it does not necessarily preclude them from appearing." Völlmin (2010) shows how the verb meaning 'to taste' in Gumer can be used in a number of different contexts. As the facts are nearly identical in Amharic, we demonstrate this using the equivalent verb *t'affät'ə* 'to be tasty':

- (74) a. *migb-u* *t'affät'ə*
 food-DEF.M become_tasty\PFV-SBJ.3SG.M
 'The food became tasty.'
- b. *ləmma-(n)* *migb-u* *t'affät'ə-w*
 Lemma-ACC food-DEF.M become_tasty\PFV-SBJ.3SG.M-OBJ.3SG.M
 'Lemma found the food tasty.'
- c. *ləmma-(n)* *migb-u* *t'affät'ə-ll-ət*
 Lemma-ACC food-DEF.M become_tasty\PFV-SBJ.3SG.M-APPL-OBJ.3SG.M
 'The food became tasty for Lemma.'
 (He cooked it well.)
- d. *ləmma-(n)* *migb-u* *t'affät'ə-bb-ətt*
 Lemma-ACC food-DEF.M become_tasty\PFV-SBJ.3SG.M-APPL-OBJ.3SG.M
 'The food became tasty to Lemma's detriment.' (i.e., the food became too sweet)

In (74a) the verb *t'affät'ə* 'become tasty' is used with its single obligatory argument – the thing that undergoes the change of state, i.e., 'the food'. In (74b), the Experiencer argu-

ment ('Lemma') is explicitly expressed, but notice that this argument is cross-referenced by the object agreement suffix on the verb. In (74c) and (74d) the verb is marked by the applicative suffix and there is object agreement with the applied phrase ('Lemma') with the Experiencer role. Interestingly, the applied phrase in both (74c) and (74d) is not necessarily an Experiencer. Lemma may not have actually tasted the food himself, but rather someone may have tasted it and determined that the food is tasty with either a favourable (=benefactive) or a not favourable (=malefactive) judgment about Lemma's culinary skills.

As already mentioned above (see Examples [34a] and [34b]), with inherently ditransitive verbs such as 'to give' the benefactive applicative marks an argument that benefits from the event but is not a Recipient. Thus consider (34a) repeated below as (75):

- (75) *aster la-lidz-u mas'haf sat't'a-tf(-iw)*
 Aster to-boy-DEF.M book give\PFV-SBJ.3SG.F-OBJ.3SG.M
 'Aster gave a book to the boy.'

In (75) the Agent argument occurs as a subject ('Aster'), the Recipient occurs as an indirect object ('to the boy'), and the Theme argument is realised as the direct object ('a book'). If we keep the same three noun phrases as they appear in (75) but mark the verb for the benefactive applicative, we get (34b), repeated below as (76):

- (76) *aster la-lidz-u mas'haf sat't'a-tf-ill-ət*
 Aster to-boy-DEF.M book give\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster gave a book (to someone) for the benefit of the boy.'

Notice that, while in both (75) and (76) the phrase 'the boy' is formally identical,²⁰ the meanings are subtly different: in (76) the Recipient of the book is not and cannot be 'the boy', but rather someone not specified explicitly in the sentence. This is similar to the so-called deputative applicative (see Van Valin and LaPolla 1997: 384), where the applicative is depicting an act carried out on behalf of someone (expressed in the applied phrase).

When we examine other ditransitive verbs such as 'to send' we get a different picture. Consider the following:

²⁰ It is due to this ambiguity of the phrase headed by the preposition *la-* between the Recipient and Beneficiary senses that some Amharic speakers of English as a second language usually confuse the two meanings encoded by the English prepositions 'to' and 'for', saying *I gave the book for him*, instead of *I gave the book to him*.

- (77) *aster lə-lidz-u məs'haf lak-ətf-ill-ət*
 Aster to-boy-DEF.M book send\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster sent a book to the boy.'
 Also: 'Aster sent a book to someone for the boy's benefit.'

Interestingly, (77) is ambiguous between the Recipient interpretation (the boy is the Recipient of the book) or the Beneficiary interpretation (the boy is the Beneficiary of the book being sent to someone unspecified). Also note that unlike the case with the verb *sət'tə* 'to give' in (75), without the applicative marker the construction in (77) with the verb *lakkə* 'to send' becomes ungrammatical:

- (78) **aster lə-lidz-u məs'haf lakə-tf-iw*
 Aster to-boy-DEF.M book send\PFV-SBJ.3SG.F-OBJ.3SG.M

However, if the Theme argument is individuated and fronted, the structure becomes grammatical without the applicative suffix:

- (79) *aster məs'haf-u-n lə-lidz-u lakə-tf-iw*
 Aster book-DEF.M-ACC to-boy-DEF.M send\PFV-SBJ.3SG.F-OBJ.3SG.M
 'Aster sent the book to the boy.'

Notice that the object suffix now agrees with the Theme argument ('the book') and not the Recipient ('the boy'). How do other ditransitive verbs behave with respect to the applicative construction? Let us look at the verb *fət'tə* 'to sell':

- (80) *aster lə-lidz-u məs'haf fət'tə-ill-ət*
 Aster to-boy-DEF.M book sell\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M
 'Aster sold a book to the boy.'
 'Aster sold a book to someone (unspecified) for the benefit/on behalf of the boy.'

Again, like the verb 'to give', the applicative of the verb *fət'tə* 'to sell' is ambiguous between the recipient reading and the benefactive reading. But like with the verb 'to send', and unlike with the verb 'to give', removing the applicative suffix from (80) renders the structure ungrammatical as the object pronominal suffix does not cross-reference the Recipient argument:

- (81) **aster lə-lidz-u məs'haf fət'tə-tf-iw*
 Aster to-boy-DEF.M book sell\PFV-SBJ.3SG.F-OBJ.3SG.M

Now turning to the meaning of the malefactive benefactive, as already mentioned, it is important to note that while it is typically employed to derive the meaning 'something

is negative/bad for someone', it is also used to mark the locative and instrumental.²¹ To see this, let's start with a sentence that has instrumental and locational adjuncts:

- (82) *aster bə-t'ərap'p'eza-w laj bə-billawa siga k'orrət'-ətf*
 Aster on-table-DEF.M on with-knife meat cut\PFV-SBJ.3SG.F
 'Aster cut some meat with a knife on the table.'

The first adjunct expresses the location, that is, where the event of cutting took place. It is marked by the preposition *bə-* 'on' and the adposition *laj* 'on'. The second adjunct expresses the instrument by which the event was carried out, and it is also marked by the prepositional prefix *bə-* 'with'. Now, either adjunct can in principle be cross-referenced or become an applied phrase. Consider (83) where the verb is cross-referencing the locational adjunct:

- (83) *?aster bə-t'ərap'p'eza-w laj bə-billawa siga*
 Aster on-table-DEF.M on with-knife meat
k'orrət'-ətf-bb-ət
 cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut some meat on the table with a knife.'
 ('Aster, on the table, she cut some bread on it with a knife.')

This sentence sounds awkward when the cross-referenced locational adjunct occurs with the instrumental adjunct. When only the cross-referenced locational adjunct is present without the instrumental adjunct, the sentence becomes perfectly acceptable:

- (84) *aster bə-t'ərap'p'eza-w laj siga k'orrət'-ətf-bb-ət*
 Aster on-table-DEF.M on meat cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut some bread on the table.'
 (= 'Aster, on the table, she cut some bread on it.')

Likewise, the instrumental adjunct can be cross-referenced as shown in (85a), but it is more felicitous if it occurs without the locational adjunct as in (85b):

- (85) a. *?aster bə-billawa-w bə-t'ərap'p'eza-w laj siga*
 Aster with-knife-DEF.M on-table-DEF.M on meat
k'orrət'-ətf-bb-ət
 cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut some meat with the knife on the table.'
 (= 'Aster, with the knife, on the table, she cut some meat with it.')

²¹ This section has benefited from consulting Völlmin (2010: 322ff), who discusses the same phenomenon in Gumer. See also Völlmin (2017).

- b. *aster bə-billawa-w siga k'orrət'-ətf-bb-ət*
 Aster with-knife-DEF.M meat cut\PFV-SBJ.3SG.F-OCR-OBJ.3SG.M
 'Aster cut some meat with the knife.'
 (= 'Aster, with the knife, she cut some meat with it.')

This state of affairs, i.e., why a single cross-referenced adjunct is more felicitous is likely to be due to information structure. The speaker chooses one of the multiple adjuncts and foregrounds it in the conversation by the use of the APPL/OCR marker.

When we talk about the locational applicative, it is important to keep in mind that typically it corresponds to the meaning 'at' or 'on'. It cannot correspond to the goal location ('towards a place') nor to the source location ('from a place'). Thus, consider the following:

- (86) *aster wadə kətāma-w hed-ətf*
 Aster to city-DEF.M go\PFV-SBJ.3SG.F
 'Aster went to the city.'

The goal location ('to the city') cannot be cross-referenced in main clauses (but see the discussion above, § 4.4, on relative clauses):

- (87) **aster wadə kətāma-w hed-ətf-ibb-ət*
 Aster to city-DEF.M go\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M

Similarly, a source location ('from a place') cannot be cross-referenced as the contrast in the pair of examples in (88)–(89) shows:

- (88) *aster kə-kətāma-w wət't'a-tf*
 Aster from-city-DEF.M leave\PFV-SBJ.3SG.F
 'Aster left from the city.'

- (89) **aster kə-kətāma-w wət't'a-ətf-ibb-ət*
 Aster from-city-DEF.M leave\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M

It is obvious by now, but it is worth mentioning again, that with the appropriate context, the applicativised verb can also be used to mark the malefactive if the event is cast as negative for someone. Thus, when the verb is used in isolation, i.e., without the overt NP arguments, which as we noted is possible in Amharic, it can be ambiguous between three possible interpretations, namely, instrumental, locational, and malefactive:

(90) *k'orrət'-ətf-bb-ət*

cut\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M

(i) 'She cut [it] with it.' = Instrumental

(ii) 'She cut [it] on it.' = Locational

(iii) 'She cut [it] to his detriment.' = Malefactive

Note that the object agreement suffix on the verb agrees with the applied phrase rather than with the original object. Thus, when the verb is used in isolation, the grammatical features of person, number and gender of the original object are not known. In the above example where the verb *k'orrət'* 'to cut' is used by itself, the English translation presents the original object (Theme argument) as 'it', but this is not necessarily the case in Amharic as the object could be 3rd person singular feminine, 3rd person singular masculine, or 3rd person plural.

We mentioned earlier that only certain arguments and peripheral roles can occur as an applied phrase / cross-referenced oblique. Thus, we saw that while the locational role depicted in English by the prepositions 'on', 'at' can be cross-referenced or become an applied phrase, source or goal locations cannot. Likewise, the comitative cannot be cross-referenced or become an applied phrase. First consider the comitative in the BC:

(91) *aster kə-lidʒ-u gar hed-ətf*

Aster with-boy-DEF.M together go\PFV-SBJ.3SG.F

'Aster went with the boy.'

The comitative role cannot become an applied phrase, whether in its adpositional form, (92), or as an accusative marked phrase, (93):

(92) **aster kə-lidʒ-u gar hed-ətf-ibb-ət*

Aster with-boy-DEF.M together go\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M

(93) **aster lidʒ-u-n gar hed-ətf-ibb-ət*

Aster boy-DEF.M-ACC together go\PFV-SBJ.3SG.F-APPL-OBJ.3SG.M

Before concluding this section, we briefly look at one productive benefactive construction which involves the verb *bil-* 'having said' which is the converb form of the verb *alə* 'to say'. Following Völlmin's (2010: 327) description of a similar phenomenon in Gumer, we can see below that the verb 'to say' can be used to form a benefactive construction in Amharic. Thus, consider the following example:

(94) *aster lə-lidʒ-u bil-a məs'haf gəzza-tf*

Aster for-boy-DEF.M say\CNV-3SG.F book buy\PFV-SBJ.3SG.F

'Aster bought a book for the boy.'

(Lit. 'Aster, having said for the boy, she bought a book.')

Notice that in (94) with the verb ‘to say’, the Agent of the buying event (‘Aster’) has thought of the Beneficiary when carrying out the event and this is consistent with other grammaticalized uses of the verb *alə* ‘to say’ (for example, as a complementizer with verbs of cognition and speaking). Interestingly, this construction is available only for a Beneficiary in a peripheral role rather than the Recipient argument of a ditransitive verb such as *sət’t’ə* ‘give’, as can be seen in (95).

- (95) **aster lə-lidz-u bil-a məs’haf sət’t’ə-tf*
 Aster for-boy-DEF.M say\CNV-3SG.F book give\PFV-SBJ.3SG.F
 (Intended: ‘Aster gave a book to the boy.’)

Thus, if the intended meaning is ‘Aster gave a book to the boy’, where ‘the boy’ is the Recipient argument, the sentence is unacceptable. If the intended meaning is that ‘the boy’ is a Beneficiary of the giving event whose Recipient is not specified, the construction is perfectly grammatical.

6 Conclusion

In this chapter we examined the applicative construction in Amharic, as well as a related construction that does not meet the definition of an applicative construction provided by Zúñiga and Creissels (this volume) but involves the same verbal marking.

We identified two distinct (although quite obviously related) constructions involving the suffixes *-ll-*/*-bb-*: a construction that fully meets the definition provided by Zúñiga and Creissels (this volume), and a construction in which an adjunct expressed as a prepositional phrase is cross-referenced as if it were an object.

We established that the Amharic applicative construction overall satisfies the definition provided by Zúñiga & Creissels (this volume) and is consistent with a more inclusive characterisation of the applicative whereby a non-Agent element is given a more prominent morpho-syntactic and/or semantic-pragmatic prominence relative to its status in the basic construction.

A key morphosyntactic feature of the applicative in Amharic is the use of the two verbal suffixes *-ll-* and *-bb-*, which co-occur with object agreement suffixes on the verb. While subject agreement is obligatory in the language, agreement with the object and/or other (peripheral) arguments is governed by factors such as definiteness/specificity or topicality/focus. The suffix *-ll-* is used when the applied phrase is a Beneficiary of the event encoded by the verb, whereas the suffix *-bb-* is used when the applied phrase is malefactive, locative, or instrumental. We showed that these two suffixes can be used with virtually any verb irrespective of transitivity or the lexical semantics of the verb root because any event can be potentially cast as benefiting or harming some entity. We identified a syntactic lookalike to the applicative whereby a potential peripheral argu-

ment can be cross-referenced by an object agreement suffix alone, without the need for the applicative suffixes *-ll-/-bb-*. This syntactic lookalike appears to be restricted to certain verbs which can be independently construed as implicating a malefactive interpretation, for example with verbs such as *motə* ‘to die’, *sərrək’ə* ‘to steal’.

We discussed the formal similarity between the suffixes *-ll-/-bb-* with the prepositions *la-/bə-* respectively. We observed that when the phrase cross-referenced by the agreement suffix that follows *-ll-/-bb-* occurs with one of these prepositions, the suffixes *-ll-/-bb-* may be optional. On the other hand, when the phrase cross-referenced by the agreement suffix that follows *-ll-/-bb-* occurs without one of these prepositions (i.e., in the applicative construction), it must be marked for the accusative case and the suffixes *-ll-/-bb-* become obligatory.

It is plausible that the preposition marked applied phrase may be an intermediate construction before the emergence of the accusative marked applicative. To what extent this may be true diachronically is a topic we leave for future work.

Abbreviations

ACC	accusative
APPL	applicative
AUX	auxiliary
CNV	converb
COMP	complementizer
CSD	direct causative
CSI	indirect causative
DEF	definite
F	feminine
IMP	imperative
INTR	intransitive
IPFV	imperfective
JUS	jussive
M	masculine
MP	medio-passive
NEG	negation
NPST	non-past
OBJ	object
OCR	oblique cross-reference
PFV	perfective
PL	plural
POL	polite
POSS	possessive
RECP	reciprocal
REL	relative
S	singular
SBJ	subject
VN	verbal noun

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- Zúñiga, Fernando & Denis Creissels. This volume. Applicative constructions: An introductory overview.

Simon Musgrave, I Wayan Arka, and Gede Primahadi Wijaya Rajeg

10 Applicative constructions in Standard Indonesian (*Bahasa Indonesia*)

Abstract: Indonesian (*Bahasa Indonesia*) is a standardised variety of Malay. The language has two suffixes, *-i* and *-kan*, which can attach to verbs and function as applicative morphology: in each case, the suffix causes the argument array of the verb to be modified and it is the non-subject arguments which are affected. Both suffixes also have other functions; in one case the suffix is extensively used also as a causative morpheme. Indonesian has some features of a symmetrical voice system, and undergoer subject constructions are more common than passives in English, for example. Applicative constructions interact with the voice system; in particular, in some cases the applicative possibility is preferred in undergoer voice. For one suffix (*-kan*), it is not uncommon for the morpheme to appear but for the preposition introducing what would be expected to be an applied argument to be retained. In light of these various complications, we suggest that applicatives in Indonesian are best understood as constructions with characteristics, some more prototypical than others, which can be manipulated to accommodate syntactic and pragmatic factors.

1 Introduction

This chapter describes applicative constructions in Indonesian (ISO639-3: ind, Glottolog: indo1316, Glottolog lists Bahasa Indonesia as a dialect of Standard Indonesian with separate code stin1234), an Austronesian language. According to the census of 2010, the language is a first language for 43 million speakers with an additional 156 million speakers who have it as an additional language (Badan Pusat Statistik 2013: 421, 427). Standard Indonesian (*Bahasa Indonesia*) is the national language of the Republic of Indonesia and is a codified version of (High) Malay. Its status as a future national language was decided in 1928 and became official with the establishment of the nation in 1948. The formal standard is described in an official grammar (Moeliono et al. 2017) and there is a reliable description in English (Sneddon et al. 2010). This variety is not used consistently in everyday life and, within the nation, there is a continuum of related language varieties with the standard at the acrolectal end and localised Malay varieties at the basolectal end (e.g. Ternate Malay, Litamahuputty 2012); some of these basolectal varieties can even be considered creoles (e.g. Ambon Malay, Minde 1997). The variety

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spoken in Jakarta has influence beyond the capital city and can be considered an informal standard (Sneddon 2006). We concentrate here on the standard variety but will occasionally provide relevant information about colloquial varieties.

Indonesian has productive applicative constructions marked by the verbal suffixes *-i* and *-kan* which rearrange the argument array of a verb to make a peripheral participant a non-subject core argument, an Applied Phrase (AppP) in the terminology of this volume. The two suffixes are semantically differentiated: *-i* is used typically with locations and related semantic roles, while *-kan* is typically used with beneficiaries and instruments. Many verb roots can form derived verbs using either suffix and both suffixes can be used to derive transitive verbs from intransitive roots and to derive ditransitive verbs from transitive ones. Both of the suffixes are polyfunctional. The suffix *-kan* also functions as a causative morpheme,¹ as can the *-i* suffix (although this is less common). The suffix *-i* also functions to encode extension of the action denoted by a verb, encompassing duration, iteration or intensity. There is also a construction in which the suffix *-kan* attaches to a verb but there is no restructuring of the clause; that is, the oblique which would be expected to become an AppP remains an oblique expressed as a prepositional phrase.

This chapter is organised as follows. Section 2 introduces the basics of Indonesian morphosyntax necessary to understand the applicative construction. Section 3 describes the two applicative suffixes and gives examples of their various functions. Section 4 discusses the semantic contrast between the two applicatives, suggesting that the distinction is less clear cut than is traditionally claimed. Section 5 examines various possibilities where some aspect of the prototypical applicative construction with *-kan* is optional, resulting in a range of patterns which do not have all the properties of a typical applicative. Sections 4 and 5 are therefore the main basis for our overall argument that applicativisation in Indonesian is best viewed from the perspective of prototype theory: the language has a constructional template for applicatives which provides a prototype, but specific realisations of the construction may not have all the prototypical features. We suggest that these less typical patterns should still be considered as falling within the overall construction.

2 Basics of morphosyntax of Indonesian

Indonesian is a SVO language with relatively rigid word order. The default linear order is given in (1), with grammatical subject (SUBJ) (S/A) coming by default in the clause-initial position. The subject NP is also the default topic.² Word-order variation is possible,

¹ There is another homophone in the spoken language, a discourse particle marking shared knowledge and requesting agreement or acknowledgement (Wouk 1998).

² In the interests of simplicity, we do not show the internal structure of words other than verbs, except in cases where glossing would be confusing without such information. The Actor Voice prefix, *meN-*, has complex allomorphy which involves fusion of segments at the morpheme boundary in some cases.

and is pragmatically motivated. For example, a unit bearing a marked pragmatic function such as (contrastive) TOPIC/FOCUS appears at the left-most periphery position. This is exemplified by Example (2) showing a topicalised/left-dislocated non-subject NP.

- (1) [NP:S/A]_{SUBJ} – Verb – [NP:P/G]_{OBJ} – [NP:T]_{OBJ2} – [PP]_{OBL}
- (2) [*Lagu itu*]_i *barangkali* [*saudara akan menyukai(=nya)*]_{IP}
 song that perhaps 2SG FUT AV.like.APPL=3SG
 ‘That song, perhaps you will like (it).’ (Arka 2021: 200)

SUBJ selection in Indonesian is regulated by a voice system which is marked on the verb. For example, Actor Voice (AV), which selects the A³ argument (*saudara* in Example [2]) as SUBJ is indicated by the presence of a prefix *meN-*, where the last element is a nasal stop with various realisations depending on the following segment (Blust 2004: 81–84).

The Indonesian voice system retains some aspects of a symmetrical voice system as seen in the Philippine-type languages. That is, Indonesian has the so-called Undergoer Voice (UV), which appears in two constructional types depending on the formal structural properties of the verb and the A argument, exemplified in (3a–b). Traditionally in Indonesian linguistics (Chung 1976; Sneddon et al. 2010), the structures in (3a–b) are lumped together with (3c) as passive (PASS). However, recent studies in Indonesian (e.g. Arka and Manning 2008; Arka 2021) show that it is more accurate to distinguish the UV structures in (3a–b) from the (real) PASS structure in (3c) as they have different grammatical properties associated with the syntactic status of A. The A argument of the UV structure—*ku*= ‘1SG’ in (3b), or *=nya* ‘3SG’ in (3c)—is a core argument as its properties meet formal and behavioural properties of core arguments. These include its expression as a bare pronominal clitic. It occupies a core argument position immediately adjacent to the verb. It is therefore hosted by or affixed to the verb.⁴ This A core argument is in contrast to the expression of the A oblique, which is flagged by the preposition *oleh* as in (3c).

It is therefore confusing to indicate the break between morphemes, and we gloss Actor Voice forms thus: av.[verb]. Many of our examples are drawn from the 300k sentence sample of the ind_mixed_2012 corpus (available from: https://wortschatz.uni-leipzig.de/en/download/Indonesian#ind_mixed_2012, see also Goldhahn, Eckart, and Quasthoff 2012). Examples are referenced by sentence number in that source. Examples for which no source is specified are provided by the second and third authors who are both speakers of Indonesian.

³ We use Actor (A) and Undergoer (U) to refer to the semantic macroroles associated with a transitive verb.

⁴ This possibility is restricted to first and second person actors although address terms can be used as pronoun substitutes and Musgrave (2003) argues that the pronominal clitic in this construction should be considered to be a verbal affix even though it is written as a separate word.

- (3) a. *Saya membaca buku itu*
 1SG AV.read book that
 'I read the book.'
- b. *Buku itu ku=baca*
 book that 1SG=[UV]read
 'The book, I read (it).'
- c. *Buku itu di-baca=nya*
 book that DI_{UV}-read=3SG
 'The book, (s)he read (it).'
- d. *Buku itu di-baca oleh Amir*
 book that DI_{PASS}-read by Amir
 'The book was read by Amir.' (Arka and Manning 2009: 47)

Given that an A can be a core argument but not SUBJ, we use the term “non-subject argument” in preference to “object” throughout. It should be noted that PASS is constructional in nature with verbal morphology (*di-*) being only an element of the construction. Thus, *di-* simply marks that the U is selected as SUBJ, which means that the status of the A argument is unspecified, and it can be unexpressed. When it is expressed, its status is determined by the syntactic flagging of *oleh* for PASS, or its bare clitic realisation hosted by the verb for UV (Examples [3b–c]). At the morphological level, *di-* is ambiguous between PASS and UV; hence our glossing of DI_{PASS} and DI_{UV}. The constructions marked by the prefix *di-* are only possible where the subject (the undergoer) is third person, whereas the UV construction with a proclitic pronoun is not possible with a third person SUBJ. Intransitive verbs occur with various prefixes such as *ber-* and including *meN-* but they may also be unprefixed. As noted previously, subjects precede the verb in unmarked word order for all voice constructions.

Obliques are structurally peripheral. Obliques and core arguments are clearly marked differently: obliques are realised as prepositional phrases whereas core arguments appear as bare noun phrases.⁵ As is common in Austronesian languages, pronouns in Indonesian canonically only refer to humans; this applies both to free pronouns and to clitic pronouns. This stricture applies in principle to the clitic *=nya*, but even in formal contexts, current usage allows this pronoun to have non-human reference. Additionally, *=nya* is normally treated as a 3SG form, but as there is no 3PL reduced pronoun, some flexibility in this regard is also observed.

The applicative morphemes which are our focus are suffixes, and as mentioned above, both have more than one function. *-kan* occurs commonly with both applicative and causative function; *-i* can also function as a causative (see Footnote 9), but this is much less common than the applicative use, and also functions to code extension of the

5 In Section 5, we discuss one construction where this distinction may be less clearcut.

action denoted by a verb. Indonesian has a constraint which allows only one suffix in a complete word and therefore it is not possible to form a causative derived from an already applicative verb; one of our examples (Example [11]) will illustrate this point.⁶

3 Applicative constructions in Indonesian

Both applicatives *-i* and *-kan* give rise to mono-/di-transitive argument arrays as captured in Table 1. The main difference is the semantic role of the applied argument, realised grammatically as the postverbal (first) non-subject argument of the (AV) sentence schematised in (1). The applicative suffix *-i* selects a locative-related role (goal/source/location), whereas *-kan* selects a non-locative (i.e. beneficiary/recipient or theme) role. Beneficiaries and recipients can be thought of as locations, but in these cases something moves to the location. Kroeger (2007), amongst others, argues that this distinction is important. The third argument is thematically theme for both *-i/-kan* when the derived structure is ditransitive. When the third argument is OBL, it is thematically instrument for *-i* and goal/locative for *-kan*. Each will be discussed in turn in the subsections below.

Table 1: Sub-categorisation frames for derived *-i/-kan* structures (Arka et al. 2009).

(a) Monotransitive				(b) Ditransitive			
	NP _{SUBJ}	NP _{NSUBJ}	NP _{OBL}		NP _{SUBJ}	NP _{NSUBJ1}	NP _{NSUBJ2}
<i>-i</i>	A	goal/ source/ location	instrument	<i>-i</i>	A	goal/ source/ location	theme
<i>-kan</i>	A	patient/ theme/ instrument	goal/ source/ location	<i>-kan</i>	A	beneficiary/ recipient	theme

⁶ This constraint is also relevant to the question of whether Indonesian has any lexicalised applicatives. There are no plausible candidates for words derived with *-kan*; the process is transparent and productive. However, there is a handful of verbs whose citation form ends with the vowel *i* and for these the question does arise. Double vowels do not appear in Indonesian, therefore suffixation with *-i* in such cases would presumably be invisible. Two of the verbs are *beri* ‘give’ and *beli* ‘buy’, both denoting situations where themes are transferred. Both can form derivatives with *-kan*, which suggests that the words are synchronically monomorphemic, but does not tell us anything about their history, a topic which is beyond the scope of this chapter.

3.1 Applicative *-i* and other uses of the suffix *-i*

The suffix *-i* is a derivational transitivity suffix, possibly affixed to stems of different categories including a noun, an adjective or a verb; e.g., *air* (N) ‘water’ → *air-i* ‘water’ (V_{TR}), *basah* (A) ‘wet’ → *basah-i* ‘dampen’ (V_{TR}), *lompat* ‘jump’ (V_{INTR}) → *lompat-i* ‘jump over’ (V_{TR}). As seen from these examples, *-i* is a polysemous affix whose range of uses includes, but is not limited to, applicativisation and causativisation. Its effect depends on the semantics of the stem, but in both applicative and causative functions, it is often (but not always) characterised by the addition of affectedness involving locative-related meaning.

The interpretation of *-i* as causative or applicative typically depends on the semantics of the stems. Broadly speaking, a causative interpretation arises when the stem is an adjective expressing a stative event (e.g. *panas* ‘hot’ → *panasi* ‘to heat’) or a noun conceptually related to an event involving a displaced entity/theme depicted by the stem (e.g. *kulit* ‘skin’ → *kuliti* ‘to peel, to remove the skin of X’ (Example 4). An applicative interpretation arises when the stem is a verb which expresses a dynamic event, typically involving agentivity (e.g. *duduk* ‘sit’ → *duduki* ‘sit on X’) or directed motion (e.g. *datang* ‘come’ → *datangi* ‘come to X’, *jatuh* ‘fall’ → *jatuhi* ‘fall onto X’).

- (4) *Dia mengulit-i pisang itu*
 3SG AV.skin-CAUS banana that
 ‘S/he peeled (lit. removed the skin from) the bananas.’
 (Arka et al. 2009: 90)

As a transitivity suffix, *-i* changes the valence or transitivity of the stem. For example, the applicativisation of the intransitive verb *duduk* ‘sit’ (Example [5a]) results in a transitive structure (Example [5b]). In (5a), the locative ‘chair’ is oblique, prepositionally flagged by a locative preposition *di*, but in the applicative structure in (5b), it is a U non-subject argument.

- (5) a. *Ia duduk (di kursi itu)* ($INTR \rightarrow TR$)
 3SG sit LOC chair that
 ‘S/he sat (on the chair).’
 b. *Ia menduduk-i kursi itu*
 3SG AV.sit-APPL chair that
 ‘S/he was sitting on the chair.’
 (Arka et al. 2009: 88)

When the stem is transitive, the outcome of applicativisation varies. It depends on whether or not the AppP can be understood as a goal/recipient-like argument that fits with the mono- or di-transitive structure shown Table 1. For example, the applicativisation of *kirim* ‘send’ results in a ditransitive structure as seen in (6b). This is because

the oblique *dia* ‘3SG’ (6a) is a human participant, high in animacy hierarchy, which makes it easily understood as a recipient in the applicative structure (6b). The stem’s U argument, *uang* ‘money’, is naturally understood as a displaced theme. It meets the role requirement of the second non-subject argument of the ditransitive structure (6b). Example (6c) shows that the AppP can become subject in an Undergoer Voice clause.

- (6) a. *Ayah mengirim uang kepada dia* (goal) (INTR → TR)
 father AV.send money to 3SG
 b. *Ayah mengirim-i dia uang*
 father AV.send-APPL 3SG money
 ‘Father sent money to him/her.’
 c. *Dia yang di-kirim-i uang oleh Ayah*
 3SG REL DIPASS-send-APPL money by father
 ‘He who was sent money by father’.

However, if the applied argument is inanimate (e.g. *sawah* ‘rice field’ in Example [7]), it typically only receives a locative role not a goal/recipient role interpretation. The derived structure is not typically a ditransitive structure. Instead, as seen in (7b), the result is a monotransitive structure with the theme argument interpreted to bear an instrument role flagged by *dengan*, grammatically OBL (cf. the subcategorisation frame [a] in Table 1). Attempting a ditransitive structure downgrades acceptability as seen in (7c) and ditransitive examples of this type do not occur in our corpus data.

- (7) a. *Mereka menanam padi di sawah*
 3PL AV.plant paddy LOC rice.field
 ‘They planted paddy in the field.’
 b. *Mereka menanam-i sawah dengan padi*
 3PL AV.plant-APPL rice.field with paddy
 ‘They planted paddy in the field.’
 c. ??*Mereka menanami sawah padi*

The suffix *-i* may encode progressive or durative aspect, possibly with intensity, without altering the valence of the stem. This is exemplified in Examples (8) and (9). *Saya* is non-subject U argument in the non-applicative structure without the suffix (8a) and also in the structure with a suffixed verb in (8b). As seen from the contrast in the free translation, the suffix *-i* here signals repetition/intensity (or durative aspect), absent in (8a). The same contrast is observed in (9a–b). It is explainable in terms of the extended affectedness of U, due to the locative meaning imposed by *-i*. That is, in the case of Example (8b), the U (*saya* ‘1SG’) is understood to be affected by the action of hitting in an extended manner, e.g. on different parts of the body, while in Example (9b), the affectedness is extended in intensity. This property of suffixes which also function as applicatives is seen in a number of Austronesian languages. Balinese has a verb *nyagur*

‘AV.hit’ and a derived verb *nyagur-in* ‘AV.hit-APPL’ which can have a progressive aspect meaning, and the Javanese applicative morpheme *-i* also codes iterative action and/or progressive aspect (Hemmings 2013).

- (8) a. *Ia memukul saya* b. *Ia memukul-i saya*
 3SG AV.hit 1SG 3SG AV.hit-APPL 1SG
 ‘S/he hit me.’ ‘S/he was hitting me.’
- (9) a. *Ia memegang pencuri itu* b. *Ia memegang-i pencuri itu*
 3SG AV.hold thief that 3SG AV.hold-APPL thief that
 ‘S/he held the thief.’ ‘S/he was holding the thief tightly.’

3.2 Applicative *-kan* and other uses of the suffix *-kan*

The *-kan* suffix has four main functions. Two of these functions result in applicative constructions where participants otherwise expressed as obliques become part of the syntactic core of the clause, that is, AppPs. The semantic roles in question in these constructions are beneficiary (§ 3.2.1) and instrument (§ 3.2.2). The third function is an applicative lookalike where the suffix function is to make clear that the non-subject argument of a verb is the patient of the action (§ 3.2.3). Finally, *-kan* functions as a causative (§ 3.2.4).

3.2.1 Beneficiaries

There are numerous verbs for which a beneficiary can be a participant in the action, and that participant can be encoded either as an oblique in a prepositional phrase (typically with *untuk* ‘for’) with an unsuffixed verb (Example [10a]), or as an AppP with a suffixed verb. A typical example is the verb *bawa* ‘carry’. Example (10b) shows that the derived verb in this case is ditransitive, and Example (10c) shows that the beneficiary can become subject in an Undergoer Voice construction:

- (10) a. *Tae Kyu pulang membawa bunga untuk Pal Kang*
 Tae Kyu return.home AV.carry flower for Pal Kang
 ‘Tae Kyu came home carrying flowers for Pal Kang.’
- b. *orang-orang Majus membawa-kan Yesus mur serta emas*
 person~PL magus AV.carry-APPL Jesus myrrh with gold
 ‘The Magi brought Jesus myrrh and gold.’

- c. *Seorang mukmin cukup di-bawa-kan satu dalil*
 someone resident enough DI_{PASS}-carry-APPL one proposition
saja dari sekian banyak dalil
 only from so.much many proposition
 'It is enough if a community member is brought one idea from the many ideas.'
 (Leipzig Corpora ind_mixed_2012_300K-sentences.txt: 158190, 121749, 277948)

We have referred to the semantic role involved here as "beneficiary", reflecting standard descriptions, but in fact the AppP can be affected by the action in either a positive or a negative way. That is, this applicative with *-kan* can be a malefactive construction:

- (11) a. *Ternyata pembantu=nya membawa-kan dia kopi beracun*
 it.appears servant=3SG AV.bring-APPL 3SG coffee poisonous
 'It turned out that his servant brought him poisoned coffee.'
 b. *kita hanya memberi-kan mereka ancaman jika mereka*
 1PL.INCL only AV.give-APPL 3PL threat if 3PL
melaku-kan sesuatu hal yang negatif
 AV.behaviour-CAUS a.certain thing REL negative
 'We will only threaten them if they do something negative.'

There is a small number of verbs which have derivatives with both applicative and causative *-kan* suffixes, for example, *jahit* 'sew':

- (12) a. *tetapi saya harus menjahit celana ini!*
 but 1SG must AV.sew pants this
 '...but I must sew these pants.'
 (Leipzig Corpora ind_mixed_2012_1M-sentences.txt: 344166)
 b. *orang~orang (...) ikut menjahit-kan baju mereka kepada Anteh*
 person~PL join AV.sew-CAUS shirt 3PL.POSS to Anteh
 '...people (from village afar) came to have their shirt sewn by Anteh.'
 (Leipzig Corpora ind_mixed_2012_1M-sentences.txt: 378654)
 c. *Tukang jahit itu menjahit-kan saya kemeja baru*
 craftsman sew that AV.sew-APPL 1SG shirt new
 'That tailor sewed me a new shirt.'
 (Sneddon et al. 2010: 87)

Note that Example (12c) has two non-subject core arguments, that is, the derived verb here is ditransitive. In contrast, Example (12b) is a monotransitive clause; the agent of

7 <https://www.kompasiana.com/linistianah/5a0544565a676f79ee7047b2/sering-mengancam-anak-lihatlah-dampak-negatifnya>

the base construction is coded as an oblique with the derived verb (see also discussion of Example [14] below).

3.2.2 Instruments

With some verbs, the AppP is the entity used to carry out an action, the instrument. Examples of this type are the verbs *pukul* ‘strike’ (Example [13a]) and *tutup* ‘cover; close’ (Example [13c]):

- (13) a. *Hye Sung memukul kursi dengan tangan=nya*
 Hye Sung AV.strike chair with hand=3SG
 b. *Hye Sung memukul-kan tangan=nya ke kursi*
 Hye Sung AV.strike-APPL hand=3SG to chair
 Both: ‘Hye Sung struck the chair with his hand.’
 c. *aku memang menutup wajah dengan telapak tangan*
 1SG certainly AV.cover face with palm hand
 d. *aku memang menutup-kan telapak tangan di wajah*
 1SG certainly AV.cover-APPL palm hand LOC face
 Both: ‘I would certainly cover my face with the palm of my hand.’
 (Leipzig Corpora ind_mixed_2012_300K-sentences.txt: 267508, 269340)

There are a few verbs, for example *tulis* ‘write’, which have *-kan* forms both for an instrument (Example [14b]) and for a beneficiary (Example [14c]):

- (14) a. *Dia banyak menulis naskah drama.*
 3SG many AV.write manuscript drama
 ‘(S)he writes many drama/play manuscripts.’
 (Leipzig Corpora ind_mixed_2012_1M-sentences.txt: 388787)
 b. *Dia menulis-kan spidol=nya ke baju saya*
 3SG AV.write-APPL marker=3SG to shirt 1SG
 ‘(S)he wrote with a marker on my shirt.’
 c. *Dia menulis-kan ayah=nya surat*
 3SG AV.write-APPL father=3SG letter
 ‘(S)he wrote a letter for their father.’
 (Sneddon et al. 2010: 87–88)

Similar to the facts discussed in relation to Example (12) above, there is a contrast here in the valency of the two derived verbs. The example with a benefactive applicative (Example [14c]) is ditransitive, while the example with the instrumental applicative (Example [14b]) is monotransitive.

3.2.3 Transitive clauses with *-kan*: valency increase and morphological lookalikes

In Section 2 above, we introduced the Indonesian voice system, including the use of the prefixes *meN-* and *di-*. The possibility of both prefixes occurring before a stem is a diagnostic for transitive verbs. Some verbs do not have a prefixed (i.e. transitive) form without the suffix *-kan*. An example of this type is the root *kerja* ‘work’ which derives an intransitive verb with the prefix *be-* (Example [15a]), and a transitive verb with the suffix *-kan*, then also allowing prefixation with *meN-* or *di-* (Examples [15b–c]):

- (15) a. *Cuma kini, sejak jatuh sakit, Julia tidak lagi be-kerja*
 only now since fall ill Julia NEG again BE-work
 ‘But now, since she fell ill, Julia has not worked again.’
 b. *ia mengerjakan terjemahan baru keempat Kitab Injil*
 3SG AV.work-APPL translation new fourth book Injil
 ‘He is working on a new translation of the fourth gospel of Injil.’
 c. *Masih banyak hal yang perlu di-kerja-kan dan*
 still many thing REL necessary DIPASS-WORK-APPL and
di-persiap-kan
 DIPASS-ready-CAUS
 ‘There are still many things which need to be carried out and prepared.’
 (Leipzig Corpora ind_mixed_2012_300K-sentences.txt: 87349, 145728, 218944)

Another verb of this type is *tinggal* ‘leave’. Example (16a) shows that a prefixed form of this verb is possible without the *-kan* suffix, but this is only a transitive verb in a small number of fixed idioms such as *meninggal dunia* ‘die’ (lit. ‘leave the world’). Suffixation with *-kan* derives a transitive verb which can be used with any appropriate non-subject argument and shows the expected range of voice possibilities (Examples [16b–c]):

- (16) a. *Banyak orang bilang, orang baik biasanya meninggal cepat*
 many person say person good commonly AV.leave fast
 ‘Many people say, good people usually pass away quickly.’
 b. *Para tamu itu memaksa Aidit meninggal-kan rumah*
 COLL friend that AV.force Aidit AV.leave-APPL house
 ‘Several friends made Aidit leave his home.’⁸

⁸ Note that this example uses a periphrastic causative construction; the constraint on multiple suffixation means that a derived causative verb is not possible.

- c. *Elemen traumatis yang di-tinggal-kan oleh semua tragedi*
 element traumatic REL DI_{PASS}-leave-APPL by all tragedy
kemanusiaan abad ini. . .
 humanity era this
 ‘The traumatic elements which have been left by all the human tragedies of this era. . .’
 (Leipzig Corpora ind_mixed_2012_300K-sentences.txt: 81349, 43695, 24484)

The following section (Section 4) has further discussion of another set of examples involving emotion and cognition predicates, where both applicative suffixes can be used to increase valency.

With other verbs, *-kan* can be added with no valency change. That is, such verbs have prefixed forms both with and without the suffix and both are transitive, for example *sebut* ‘mention’:

- (17) a. *Aristoteles menyebut tiga cara untuk mempengaruh-i manusia*
 Aristotle AV.mention three way for AV.influence-APPL mankind
 ‘Aristotle mentions three methods to influence people.’
 b. *Kita akan menyebut-kan dua hal saja*
 1PL.INCL FUT AV.mention-APPL two matter only
 ‘We will mention only two issues.’
 c. *Bacalah dosa~dosa yang di-sebut-kan Kristus*
 read.EMPH sin~PL REL DI_{UV}-mention-APPL Christ
 ‘Just read the sins which are mentioned by Christ.’
 (Leipzig Corpora ind_mixed_2012_300K-sentences.txt : 12737, 180106, 152941)

Such constructions are examples of a morphological lookalike: the morphology of an applicative construction is present, but there is no restructuring of the argument array of the clause. Traditional accounts (e.g. Sneddon et al. 2010: 73) subsume these uses of *-kan* under the description “marking the object as patient”.

3.2.4 Causative *-kan*

The suffix *-kan* can be used to add an additional agent-like participant to a clause. This is possible both with intransitive verbs, resulting in a transitive clause (Example [18]), and with transitive verbs, where the result is another transitive clause in which the agent of the base construction is coded as an oblique (Example [19]).

- (18) a. *Siti bangun*
 Siti wake
 ‘Siti woke up.’

- b. *Ibu membangun-kan Siti*
 mother AV.wake-CAUS Siti
 ‘Mother woke Siti up.’
 (Sneddon et al. 2010: 78)

- (19) a. *Wanita itu mencuci pakaian saya*
 woman that AV.laundry clothes 1SG
 ‘That woman washes my clothes.’
 b. *Saya mencuci-kan pakaian pada wanita itu*
 1SG AV.laundry-CAUS clothes at woman that
 ‘I have my clothes washed by that woman.’
 (Sneddon et al. 2010: 79)

Table 2 shows that causative *-kan* also functions to derive transitive verbs from nouns and adjectives:

Table 2: Verbalising *-kan*.

Base	Gloss	Derived verb	Gloss
<i>kabar</i>	‘news’	<i>mengabar-kan</i>	‘report’
<i>sekolah</i>	‘school’	<i>menyekolah-kan</i>	‘send to school’
<i>bersih</i>	‘clean’ (adjective)	<i>membersih-kan</i>	‘clean’ (verb)
<i>bebas</i>	‘free’	<i>membebas-kan</i>	‘release’

4 The semantic contrast between the two applicative morphemes

As mentioned initially and exemplified in the previous section, the two applicative suffixes differ in terms of the semantic roles preferred for the AppP: locative/goal-related roles by *-i* and other roles (patient/recipient/instrument) by *-kan*. The suffixes *-i/-kan* can be affixed to the same stem, and as noted by Kaswanti Purwo (1995), Sneddon et al. (2010) and Kroeger (2007), we therefore have linking alternations in Indonesian similar to the spray-load alternation in English. This is exemplified in (20) and (21). The base verb in Example (20), *muat* ‘hold, contain’, has an unsuffixed transitive form, seen in Example (20c), while the base verbs in Examples (21) and (22) are intransitive.

- (20) a. *Buruh itu memuat-kan beras ke kapal*
 worker that AV.load-APPL rice to ship
 ‘The workers loaded the rice onto the ship.’

- b. *Buruh itu memuat-i kapal dengan beras*
 worker that AV.load-APPL ship with rice
 'The workers loaded the rice onto the ship.'
 (Arka et al. 2009 : 89)
- c. *Kapal itu sedang memuat batu bara*
 ship that CONT AV.hold stone ember
 'The ship is loading coal.'
 (Echols and Shadily 1994: 377)
- (21) a. *...air sudah menempel pada dek*
 water already AV.stick at deck
 '...water already stuck at the deck.'
 (Leipzig Corpora ind_mixed_2012_1M-sentences.txt: 372288)
- b. *Anak~anak menempel-kan poster ke tembok*
 child~PL AV.stick-APPL poster to wall
 'The children stuck a picture to the wall.'
- c. *Anak~anak menempel-i tembok dengan poster*
 child~PL AV.stick-APPL wall with poster
 'The children stuck a picture to the wall.'

Given the different roles selected by *-i/-kan*, the different effects as seen in (22) are expected:

- (22) a. *Dia datang lagi dalam kehidupan=mu*
 3SG come again within life=2SG
 '(S)he came into your life again.'
- b. *Mereka mendatang-kan polisi*
 3PL AV.come-KAN police
 'They arrived with the police.' (comitative-applicative *-kan*)
 'They called for the police / made the police come.' (causative *-kan*)
- c. *Mereka mendatang-i polisi*
 3PL AV.come-APPL police
 'They came to / approached the police.' (applicative *-i*)

There is an intriguing overlap with the goal-related role of *-i* and the recipient/benefactive role of *-kan*, which supports the idea that applicativisation is constructional in nature. This is related to the ditransitive construction, exemplified in (23), where *-i* or *-kan* is affixed to the same verb *kirim*, and the AppP is human, *Tini*. The differences in meaning appear to be tenuous, especially between *mengirimi* (reading [i]) and *menyampaikan* (reading [ii]). Reading (ii) might also imply (i) (i.e. a direct goal/recipient and beneficiary role). Reading (iii) is only available for *-kan* (where *Tini* is the owner/source of the book, benefiting from the assistance in sending the book).

- (23) *Saya [mengirimi]_(i)/[mengirimkan]_{(ii)/(iii)} Tini buku*
 (i) 'I sent Tini a book.' (Tini=the goal/recipient; the book was directly sent to Tini.)
 (ii) 'I sent a book for Tini.'
 (Tini is the (intended) beneficiary; the book might have been sent via somebody else.)
 (iii) 'I sent a book (to somebody) for the benefit of Tini.'

Furthermore, evidence that the applicative is constructional and that the suffix *-i/-kan* is only one element in the construction comes from the fact exemplified in (24). Here, the applicative suffix is optional because the larger constructional template already encodes the structure [NP_{SUBJ} V NP_{NSUBJ:THEME} PP_{OBL:goal}] (cf. subcategorisation [a] in Table 1). In short, when the constructional template is satisfied, and it is consistent with the stem's (non-applicative) subcategorisation frame, then the suffix *-kan* is optional.

- (24) *Ayah mengirim(-kan) uang kepada saya* (monotransitive)
 father AV.send-APPL money to 1SG
 'Father sent money to me.'

Voskuil (1996) argues that the two applicatives in Indonesian reflect semantic distinctions which are also visible in other languages. He claims that the *-i* applicative is similar to the prefix *be-* in Dutch and the suffix *-an* in Tagalog in that all of these morphemes derive change of state verbs along the lines of the zero-derived verb *butter* in English. *-kan*, on the other hand, is similar to the Tagalog prefix *i-* in that both of them derive change of location verbs like the English *pocket* class. Voskuil also sees this semantic distinction reflected in the fact that dative type relations are encoded with *-i* applicatives, while benefactives are encoded with *-kan*.

This approach, in which the semantic properties of derived verbs are the result of the interaction of the root and the rather general properties of the applicative morphemes is taken even further by several scholars who attempt to include causative *-kan* in the analysis. Vamarasi (1999) argues that, at least in the case of intransitive verbs, the effect of the suffix *-kan* depends on the class of the base verb: for actor-oriented verbs (unergatives), *-kan* behaves as an applicative adding a non-subject argument. And for undergoer-oriented verbs (unaccusatives), *-kan* behaves as a causative, adding an agent subject. Kroeger (2007) suggests that *-kan* has three functions: a morphosyntactic one which is the benefactive applicative; a morphosemantic one, which covers the instrumental applicative and the causative with transitive bases, as well as constructions with an optional suffix (see Section 6); and a category changing function which covers causatives with intransitive bases. Which function applies depends on semantic properties of the base. Cole and Son (2004) take this approach even further, claiming that *-kan* has a single function: "licensing of a new argument in the argument structure that is not licensed syntactically by the base verb" (p. 339).

All of these approaches give important insights into the functions and behaviour of the two applicative morphemes in Indonesian, but they all encounter problems when

we include the class of emotion and cognition verbs.⁹ The basic pattern for this class of words in Indonesian is for the experiencer to be the subject in the clause and for the stimulus to be encoded in a prepositional phrase (some verbs allow a bare NP stimulus):

- (25) *Saya takut dengan anjing*
 1SG afraid with dog
 'I am afraid of dogs.'

To form a prefixed verb, that is to be part of the full transitive system, such verbs almost all require an applicative derivation. Some verbs have *-i* derivatives, some have *-kan* derivatives, some allow both possibilities and some allow both applicative and causative derivations with *-kan*. The verb introduced above, *takut* illustrates the range of possibilities:¹⁰

- (26) a. *Hanya Tuhan yang sewajarnya kita takut-i*
 only lord REL truly 1PL.INCL UV.fear-APPL
 'We need fear only the Lord.' (*-i* applicative)
 (Echols and Shadily 1994: 544)
- b. *Tapi yang di-takut-kan oleh Mustika bukanlah wanita yang*
 but REL DI_{PASS}-afraid-APPL by Mustika NEG.EMPH woman REL
di-kejar~kejar oleh Sandy
 DI_{PASS}-chase~CONT by Sandy
 'But what was feared by Mustika was not the woman who was being chased by Sandy.' (*-kan* applicative)
 (Fredy S 1991: 30)
- c. *Berarti ia melangkah ke dalam bahaya yang menakut-kan*
 meaning 3SG AV.step to inside danger REL AV.afraid-CAUS
 'Meaning that he stepped into a terrifying danger.'
 (Christie 1986: 274)

These examples show that, at least when associated with this class of verbs, either applicative suffix can be used to derive a transitive verb. The semantic role of the participant which becomes a core argument is the same; it is always a stimulus. While

⁹ See Musgrave (2003: Section 4.1.3) for discussion of whether these words should be considered verbs or adjectives.

¹⁰ A causative verb can also be derived from this base with the suffix *-i*, that is, the full set of possibilities can be seen with one verb:

Ia menakut-i dan membentak orang bawah=nya
 3SG AV.afraid-CAUS and AV.snap.at person below=3SG
 'She intimidated her subordinates and spoke harshly to them.' (Echols and Shadily 1994: 544)

the suffixes are typically associated with certain semantic roles when they function as applicatives, these examples suggest that they can also function equally as transitivisers in this context.

There is also a handful of adjectives which can be the base for derived verbs with both *i* and *-kan* and for which there is little difference in meaning between the two derivations. Examples of this type are *habis* ‘finished’ (Examples [27a–b]) and *lengkap* ‘complete’:

- (27) a. *Ia menghabis-i cerita=nya dengan nasihat*
 3SG AV.finished-APPL story=3SG with advice
 ‘(S)he finished their story with a warning.’
 b. *Ia menghabis-kan uang jaja=nya untuk membeli mainan*
 3SG AV.finished-APPL money snack=3SG for AV.buy toy
 ‘(S)he used up their snack money buying toys.’
 (Moeliono et al. 2017: 143)

Usage-based research (i.e. using corpora) also suggests that the semantic differentiation of the two applicative suffixes is not as clear as has traditionally been assumed, but is also dependent on voice alternations. A corpus-based study on the Indonesian verb *kena* ‘be hit’ (Rajeg, Rajeg, and Arka 2020) shows that the *-i* and *-kan* forms of this verbal base exhibit statistically distinct semantic preference in active (*meN-*) and passive (*di-*). The predominant sense of *mengena-kan* (AV) is the physical ‘to wear cloth/body-accessories’ (Example [28a]) while the predominant sense of the passive *di-kena-kan* (PASS) is the metaphorical ‘to be imposed/be subject to (a regulation, obligation, etc.)’ (Example [28b]). This ‘impose/subject to’ sense of *kena-kan* in passive is also the predominant one for *kena-i* in PASS (*dikenai*) (Example [28d]), but the active form of *kenai* (*mengennai* [AV]) predominantly expresses ‘to hit’ (Example [28c]). Example (26e) illustrates the use of the verb *kena* without a suffix.

- (28) a. *Dia masih mengena-kan celana seragam warna abu-abu*
 3SG still AV.KENA-APPL trousers uniform colour ash~LIKE
 ‘(S)he is still wearing the grey uniform pants.’
 b. *Kalau terlambat se-hari saja, Anda langsung dikenai-kan*
 if late NSP-day only 2SG direct DIPASS.KENA-APPL
denda atau bunga tambahan
 fine or interest extra
 ‘If you are even one day late, you will be fined or charged interest.’
 c. *...panah=ku tepat mengenai badan=nya*
 arrow=1SG exact AV.KENA-APPL body=3SG
 ‘...my arrow will precisely strike their body.’

- d. *saya akan di-KENA-i biaya sebesar 60 persen*
 1SG FUT DI_{PASS}-*kena*-APPL fee as.large.as 60 percent
 ‘I will be charged a fee up to 60 per cent.’
 (ind_mixed_2012_1M: 938247, 975688, 955107, 302404)
- e. *Akibatnya Putri kena tegur manajer kafe*
 as.a.result Putri be.hit reprimand manager cafe
 ‘As a result, Putri gets reprimanded by the cafe manager.’
 (www.indosiar.com, collected 26/04/2012)

Two points are worthy of comment here. First, active and passive forms of the same verb may have distinct semantic preference. Second, for *kena* specifically, the passive *di-*forms of the applicative forms *kena-i* and *kena-kan* are semantically synonymous, and felicitously interchangeable, (given their strong association with the same meaning), but the applicative forms are not semantically interchangeable in active because the active forms have distinct semantic preference. This also shows that verbs with applicative morphemes may have different semantic preference in certain voice morphology (cf. Rajeg, Rajeg, and Arka 2022 for another study on the interaction of verb semantics and Indonesian voice morphology with motion verbs).

We also note a study (Rajeg, Denistia, and Musgrave 2019) which looked at the distribution of Indonesian verbs derived from nouns in a semantic vector space model, a way of quantifying relationships between lexemes based on their usage in a body of text. All the nouns allowed derivation of prefixed verbs without any suffix, with the *-i* suffix and with the *-kan* suffix. In almost all cases, the three verbs clustered together closely in the semantic space; where this did not happen, one of the derivatives had acquired a specialised meaning (not an unusual phenomenon in the realm of derivational morphology). The study shows no consistent pattern in the difference between each of the derived verbs and the base verb; that is, *-i* applicatives are not consistently closer to the base verb than *-kan* applicatives or vice versa. The study also shows that the contexts of use of the base verb and the derivatives are generally similar and this is further evidence that semantic differentiation between the different applicatives and a base verb is not always strong.

5 Optionality with *-kan*

There are two ways in which the *-kan* applicative construction has optional aspects. First, there are some verbs which are monotransitive with or without the suffix and for which the U argument does not change. This contrasts with the valency remapping possibilities exemplified previously for the verb *muat* ‘contain’ (Example [20]). Second, in some cases it is possible to include the suffix but without having one of its prototypical applicative functions. That is, in such cases, the oblique which would be expected to become an AppP remains an oblique.

5.1 Optional suffix

Section 3.2.1 discussed *-kan* suffixation where the primary function of the morpheme was to emphasise that the non-subject argument of the verb was a patient. For some verbs where this happens, the suffix is optional; there may be no difference in meaning between the two possibilities or, as in the following example, the suffix intensifies the meaning. Echols and Shadily (1994: 470) gloss *merusak* as ‘damage, ruin’, while *merusakkan* is glossed as ‘destroy, devastate, break something entirely’:

- (29) a. *hal~hal yang bisa merusak pikiran manusia*
 matter~PL REL can AV.damage thought humanity
 ‘...matters which can hurt people’s thinking. . .’
 b. *hal~hal yang najis seperti itu yang merusak-kan*
 matter~PL REL dirty like that REL AV.damage-APPL
pikiran kita
 thought 1PL
 ‘...matters which are similarly dirty that can destroy our thinking. . .’
 (ind_mixed_2012_1M: 94890, 95351)

There are also verbs for which the suffix is optional in Actor Voice (with the prefix *meN-*), but obligatory in passive clauses:

- (30) a. *Dia mengajar(-kan) Bahasa Indonesia*
 3SG AV.teach-APPL language Indonesia
 ‘(S)he teaches Indonesian.’
 b. *Bahasa Indonesia di-ajar-kan di sini*
 language Indonesia DI_{PASS}-teach-APPL LOC here
 ‘Indonesian is taught here.’
 (Sneddon et al. 2010: 261)

Again, these are verbs for which *-kan* emphasises the role of the non-subject argument; that is, they are a subset of those for which *-kan* is optional.

For one of the verbs exemplified here, corpus data suggests that the unsuffixed and suffixed forms occur at very similar rates.¹¹

¹¹ Data collated from datasets made available by Wortschatz Leipzig (<https://wortschatz.uni-leipzig.de/en/download/Indonesian>). We are grateful to Karlina Denistia for sharing her morphologically parsed frequency list, allowing us to extract these data.

Table 3: Rates of occurrence of unsuffixed and suffixed forms for two verbs.

Verb	Gloss	Unsuffixed		Suffixed with <i>-kan</i>	
		Raw count	Percent	Raw count	Percent
<i>rusak</i>	‘damage’	13,646	97.9	295	2.1
<i>ajar</i>	‘teach’	13,715	51.6	12,865	48.4

The comparative frequencies reported in Table 3 vary considerably but they do give a quantitative indication of what optionality can mean here although we have not separated causative and applicative uses of *-kan* for those verbs and these figures do not take account of voice. Further analysis along these lines will be time-consuming. It requires making judgments for each verb as to whether one or both functions of the suffix are possible, and then for cases where both functions are possible, judgments have to be made about individual examples. Comprehensively parsed and tagged data would reduce some of this work, but achieving that would also involve a considerable effort.

5.2 *-kan* with retained oblique

Section 3.2.2 showed *-kan* as an applicative which changed the syntactic status of a beneficiary. With a base verb, the beneficiary is encoded as a prepositional phrase, an oblique, but with the derived applicative verb, the beneficiary is a core argument, an AppP. In some case, however, a derived verb with *-kan* can occur in a clause in which the beneficiary is still an oblique:

- (31) *Pelayan mengambil-kan se-gelas air untuk tamu*
 waiter AV.take-APPL NSP-glass water for guest
 ‘The waiter fetched a glass of water for the guest.’
 (Sneddon et al. 2010: 86)

Sneddon et al. point out that if the beneficiary is clearly understood in context, then a clause without any overt expression of that role is grammatical, and they suggest that this may explain the apparently redundant construction seen in Example (31). The construction has been stigmatised by some (e.g., Johns 1978: 232), or attributed to Javanese influence (Verhaar 1984). A construction of this kind is typologically unusual, but there is an even more surprising possibility here. As Kroeger (2007) notes, *-kan* in this construction can reduce the valence of a verb. The verb *beri* ‘give’ is ditransitive in its base form (Example [32a]), but it can be suffixed with *-kan* and then have the beneficiary

expressed as an oblique (Example [32b]), making the overall construction monotransitive.¹²

- (32) a. *John memberi Mary buku itu*
 John AV.give Mary book that
 ‘John gave Mary the book.’
 b. *John memberi-kan buku itu kepada Mary*
 John AV.give-APPL book that to Mary
 ‘John gave that book to Mary.’
 (Kroeger 2007)

The preceding discussion has set up distinctions between different situations where parts of the applicative pattern with *-kan* are optional. It is also possible to analyse these possibilities in a more unified way. Such an analysis would suggest that the presence of *-kan* sometimes (but not always, see e.g. Example [30]) has the function of emphasising that the semantic status of the non-subject argument of the action as being an affected participant. The affectedness can be prototypically evaluated negatively (giving rise to the patient-marking *-kan*), or positively (giving rise to beneficiary-marking *-kan*). These evaluations are also constructional in the sense that the proper interpretation depends on a specific constructional context. Prototypically, the monotransitive frame (cf. Table [1a]) selects the patient-making function of *-kan*, and the ditransitive frame selects the beneficiary interpretation. When the base verb is already monotransitive (Example [30a]), then it is expected that the patient *-kan* appears to be redundant, as it does not add a non-subject argument. Its presence in this example is arguably semantically motivated: it encodes emphasis to express a higher degree of affectedness, prototypically linked to the first non-subject argument. This prototypical linking of first non-subject argument with high affectedness is critical when the same argument must be selected as subject for pragmatic or syntactic reason. Therefore, it is not surprising to see why *-kan* is obligatory in the passive (Example [30b]) as *(meng)ajar* is polysemous having a monotransitive frame, exemplified in (30a), and a ditransitive frame [*mengajar* NP_{recipient/beneficiary} NP_{theme}], not exemplified here. The obligatory use of *-kan* with the patient selected as subject in (30b) serves as evidence for the complex semantic-syntactic functional basis of *-kan* in the wider grammatical (voice) system in Indonesian. That is, *-kan* is required as it functionally disambiguates different frames associated with *(meng)ajar*.

The advantage of adopting a unified prototype analysis within the construction theory is that we can account for a surprising yet attested demotion effect of the applicative *-kan*, as seen in (32b). In this line of analysis, *-kan* is a polysemous suffix with a set of semantic-constructional properties that include three critical features: (a) high degree

¹² Denis Creissels (p.c.) suggests that this construction could be analysed as an antipassive.

of affectedness (syntactically related to transitivity; cf. Hopper and Thompson 1980), (b) patient/recipient/beneficiary semantic role selection (in contrast to the locative selection of *-i*), and (c) constructional positive/negative evaluation (allowing specific role(s) selection of (b)). Critically, role selection (b)–(c) by *-kan* is not a selection of a unique or exclusive role in the sense that the participant made salient by *-kan* may simultaneously carry more than one of these roles. Thus, *Yesus* in (10b) is a participant bearing recipient and beneficiary roles simultaneously.

In a prototype theory analysis, forms can vary from a highly representative one exhibiting all the typical features to a less typical or atypical one. In addition, there is no one-to-one form-meaning association associated with a feature realisation. For example, the beneficiary role can be expressed via the applicative *-kan* construction, in which typically it is first non-subject argument, but it can also be prepositionally flagged by *untuk* ‘for’ or *kepada* ‘to’. Empirical evidence of the type seen in (32b) is expected on our prototypical analysis: the beneficiary is associated with more than one exponent or coding (*-kan* and *kepada*), and the same coding (*-kan*) encodes more than one semantic role (theme and beneficiary). From a derivational point of view, the structure of the type exemplified in (32b) would look like involving a demotion. From a non-derivational constructional analysis in prototype theory, however, it is an expected structure, albeit non-typical, as certain meanings are simultaneously given emphasis—in this case, affectedness of the patient *buku itu* ‘the book’ and positive/benefactive evaluation of the recipient/goal ‘Mary’.

The prototype theory analysis would also suggest that the presence of *-kan* points to a reading in which some party benefits from the action, even if that entity is not encoded as a core argument. This account would therefore allow for some flexibility of encoding of participants in a clause with an Actor Voice verb, but would predict that passive clauses would require explicit indication of the syntactic status of the participant which is subject.

These possibilities suggest that taking a prototype theory approach to applicatives is useful (cf. Michaelis and Ruppenhofer 2000). From a derivational point of view, the prototypical construction involves a restructuring of the argument structure of a predicate, with valence increasing if it does change, and taking the AppP from a range of semantic possibilities. The type of construction seen in Example (32) is not prototypical in this way, but it has some flavour of the prototype (in this case, the semantic specificity of the construction).

6 Summary

Indonesian has two suffixes, *-i* and *-kan*, which can function as applicatives, but both also have other functions. Both suffixes are used to derive verbs from base words, which may be verbs or may belong to another word class in some cases. As applicatives,

the suffixes are semantically specific to some extent: *-i* typically makes a location the AppP, while *-kan* has three specific functions: to emphasise that the AppP is a patient, to make a beneficiary the AppP or to make an instrument the AppP. However, there are examples, particularly when the suffixes are used with emotion and cognition verbs, which suggest that the valence changing function of the applicative suffixes is not tied closely to the typical semantics. This property, along with various possibilities where the suffix *-kan* is optional and where its presence does not result in a restructuring of the argument array, suggest that applicativisation in Indonesian can be considered to be a constructional template with some prototypical realisations and some realisations which lack some prototypical properties.

A number of our examples are drawn from corpus data and we believe that working with such data is an important way forward to better understanding some of the issues we have raised in this chapter. These include the possible similarities or differences between *-kan* and *-i* dependent on voice morphology of the applicative verb, and the patterns of co-occurrence of applicative *-kan* with a retained oblique argument. However, such research is challenging because there is no way to separate the different functions of the applicative morphemes, particularly *-kan*, using simple searches. Future research on applicatives in Indonesian should be part of more extensive research on the complex interface of morphosyntax and pragmatics. The discussion in this chapter has been mainly focused on the morphosyntactic properties of *-kan/-i* applicatives, with some discussion on the pragmatic-syntactic motivation in relation to the passivisation responsible for the tenacity of the applicative *-kan* (Example [30b]). The discourse pragmatics of applicatives is an understudied area in Indonesian linguistics. An in-depth study of the pragmatics of applicatives must be ideally based on a corpus of natural language use, which covers different text types (written and spoken) and registers (standard/formal and colloquial). Challenges to such a study include critical issues in producing a large corpus, properly annotated with rich tags allowing us to retrieve information, have breakthroughs in delineating complex variables, and answer questions regarding the complex interface of the morphosyntax-discourse-pragmatics of Indonesian applicatives.

Abbreviations

A	Actor
APPL	applicative
AV	Actor Voice
CAUS	causative
COLL	collective
CONT	continuous aspect
EMPH	emphasis
FUT	future

INCL	inclusive
INTR	intransitive
LIKE	having some quality of
LOC	locative
NEG	negation
NP	noun phrase
NSP	non-specific
NSUBJ	non-subject
OBL	oblique
PASS	passive
PP	prepositional phrase
PL	plural
REL	relativiser
SG	singular
SUBJ	subject
TR	transitive
U	Undergoer
UV	Undergoer Voice

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Areal overviews

Rik van Gijn

11 Contact-induced diffusion of applicatives in northwestern Amazonia?

Abstract: This paper surveys applicative constructions in the northwest Amazon and adjacent Andean slopes. Previous research suggests that this area may feature contact-induced diffusion of valency markers, specifically applicatives, across family boundaries. On closer scrutiny, however, there seems to be no firm basis for this conclusion. First of all, applicatives do not seem to be overly common in the area: many languages do not have applicatives, and those that do often have no more than one (with a few notable exceptions). Second, although some commonalities can be observed between the applicative constructions across the area, they involve common features of applicative constructions anywhere, like suffixed applicative markers, and a preponderance of benefactive or sometimes malefactive semantics. To a lesser extent, comitative-related semantics are found. There is some overlap in form, but these seem to be largely coincidental. A possible exception is a connection between Arabela (Zaparoan) and Yagua (Peba-Yaguan), which do show signs of non-accidental similarities. In addition, there are some intriguing but inconclusive functional similarities between Shiwilu (Kawapanan) and some of the Arawakan languages of central Peru, outside the northwest Amazon.

1 Introduction

South America, in particular in western Amazonia, displays dazzling linguistic diversity, especially in terms of the abundance of genealogical units. At the same time, grammatical traits are shared across genealogical boundaries (see e.g. Derbyshire 1987; Doris L. Payne 1990; David L. Payne 1990; Dixon and Aikhenvald 1999; Campbell 2012; Aikhenvald 2012 for overviews based on increasing amounts of information). Some of these lists of shared features include valency-changing morphology, including applicative morphology. For instance, Doris L. Payne (1990) discusses applicatives as one of the salient features in her chapter on widespread morphological characteristics of Amazonian languages. David L. Payne (1990), an overview of widespread forms in Amazonian languages, mentions valency-changing markers: causative affix *mV*, a causative verbal prefix *V-*, and a form *ka*, which is associated with different functions, among them valency-changing (mainly causative, also including denominal verbs in Arawa-

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kan). Aikhenvald (2012) also highlights that applicatives are common in Amazonia, and that the commonality of comitative and instrumental applicatives is a specifically Amazonian trait. She also mentions that applicatives and causatives are intertwined, and connected through the notion of togetherness, which links one common feature of Amazonia, sociative causatives (Guillaume and Rose 2010) and comitative applicatives. All of this suggests that valency-increasing constructions are prone to contact-induced diffusion in the Amazon, and that the distinction between applicatives and causatives may be weak.

These conclusions seem to be echoed in some of the literature on the languages of the north-west Amazon (henceforth NWA), a highly diverse area, with much evidence to suggest intense (historical) intercultural contact (see e.g. Sorensen 1967; Aikhenvald 2002; Epps and Stenzel 2013; Seifart 2015; Chacon 2017). Payne (1985b) discusses verbal markers in Pebá-Yaguan and Zaparoan languages, which indicate, among other functions, that the direct object should be interpreted as an instrument or accompanying object. The case for a connection between these families was made in Payne (1984), and assessed as possibly genetic in nature. Although Payne (1985b) does not commit fully to interpreting the nature of the shared *-ta* forms, she regards a shared retention as plausible. To date, there is no consensus for a genetic link between Pebá-Yaguan and Zaparoan, so contact-induced diffusion should still be considered a distinct possibility (especially in the light that it was only tentatively discarded by Payne). Wise (1999, 2002), discussing a number of northern Peruvian languages, mentions that valency-changing suffixes that include the consonant *t* are common, and that, in addition to Zaparoan and Pebá-Yaguan languages, similar markers are found in Cahuapanan and Witotoan languages, although these are less clearly applicative in nature, and more towards the causative end of the continuum. Wise (2002) also connects a causative marker present in some central Peruvian Arawakan languages of a similar form *-ta/-da* and a transitivizing and verbalizing suffix which includes *-t-*. She tentatively concludes that this is an areal feature, spread through contact. She does not commit to stating the extent of this areal feature, whether it is northwestern Amazonian, western Amazonian, or maybe even a more widespread distribution. Picking up the open questions with respect to the areal extent of *-ta* marked valency-increasing suffixes, Crevels and Voort (2020) identify two epicenters of valency markers with or including the form *-ta*, one in the southwestern Amazon and one in the northwestern Amazon. In the latter area, they identify applicative suffixes of the form *-tV* in Sikuani (Guahiban), Yagua, as well as in languages from the Chicham, Kawapanan, and Zaparoan families, and causative suffixes of similar forms in some Arawakan languages, as well as in Muniche (isolate), Kokama-Kokamilla (Tupí-Guaraní), and Witoto (Witotoan).

The spread of forms is somewhat unexpected for the area. Most of what we know about the NWA complies with the idea of function (pattern) borrowing, combined with low levels of form (in particular lexical) borrowing. In many cases, it is the functional or meaning component that is shared across languages rather than the form. This particular pattern, found in several areas across Amazonia (Epps and Michael 2017) is argued

by Epps (2020), based on earlier work by Londoño Sulkin (2012, 2017), to be related to a “the Amazonian package”—a loosely shared system in which identity preservation in the form of language maintenance and in some cases purism in a historical context of widespread bilingualism and inter-group dependency—and plays an important role in shaping the patterns of grammatical convergence in combination with relatively low degrees of formal diffusion we find today. Uncharacteristically for this area, then, it is the form that seems to have spread, while the functions of these *ta*-markers, although they center around the concept of valency increase (and sometimes decrease), seem somewhat diffuse.

As mentioned, several explanations for this distribution have been put forward: while Payne (1984, 1985a) tentatively favors inheritance as an explanatory principle for similar forms found in Zaparoan and Peba-Yaguan, Wise (2002) and Crevels and Voort (2020) seem to favor contact-induced diffusion by way of form borrowing. However, as discussed by Crevels and Voort (2020), a potential problem for the suggestion of areal spread is the minimal form of the marker, containing a very common CV sequence, which increases the likelihood that these similarities are due to chance. This then opens up a third possibility, which has not been pursued systematically, that these similar markers represent independent historical developments.

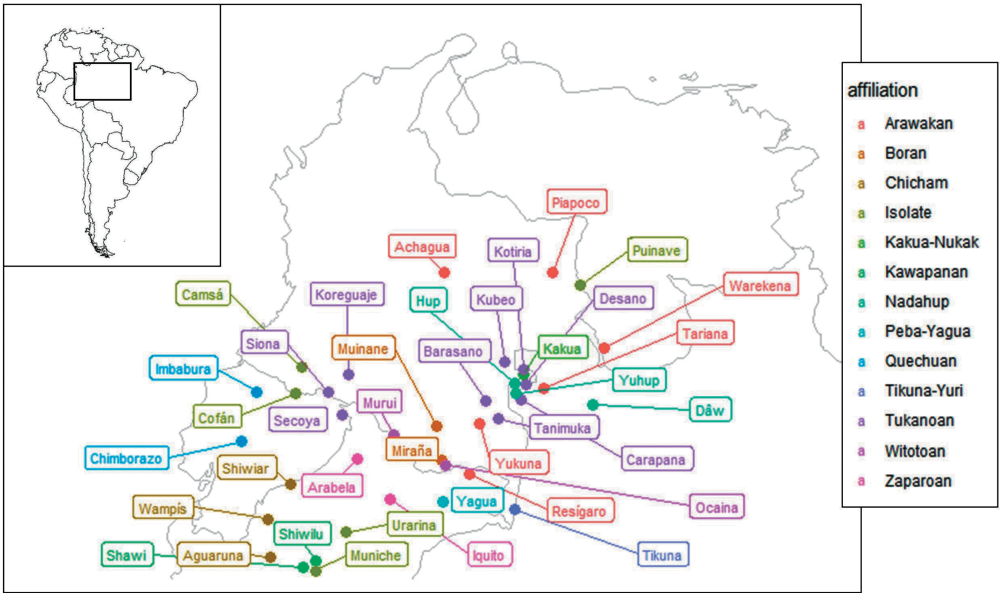
In this chapter, I will give an overview of the applicative constructions of the languages of the NWA, assessing to what extent the patterns found show functional and formal commonalities within and across language families. As far as possible, I will try to interpret whether these commonalities are best explained by common or independent historical developments in the different genealogical units. The paper is built up as follows: in Section 2, I briefly introduce the NWA and the sample for this paper. Section 3, which makes up the bulk of the paper, discusses the applicative patterns found in the languages of the area, first in terms of their presence or absence (§ 3.1), then in terms of their morphology (§ 3.2), syntax (§ 3.3), and semantics (§ 3.4). Section 4 provides a discussion of the patterns found in terms of historical processes that may be responsible for them.

2 The northwest Amazon

There are no clear natural geographical boundaries of the NWA, and so it is hard to avoid arbitrariness in defining this area. In this paper, I will consider the area roughly between the Upper Rio Negro and the Marañón River. This corresponds to the areas of present-day Ecuador, southern Colombia, northern Peru, and the westernmost adjacent strip of land in Brazil. The leading principle for the areal definition for the present paper has been to include a number of known or presumed contact situations. The most famous of these is probably the Vaupés, or more generally the Upper Rio Negro area in the northeastern corner of the NWA (see e.g. Aikhenvald 2002; Epps 2006; Epps

and Stenzel 2013), where in particular Arawakan and Tukanoan-speaking groups have been in intensive contact with each other. This is part of a larger pattern of long-term interactions between Tukano and Arawakan languages in this area (Chacon 2017), but it also includes smaller language families like the Kakua-Nukak and Nadahup families. Towards the south, there have been interactions between Arawakan, Boran, and Witotoan languages (Seifart 2015). Other contact scenarios have been proposed for the southern Marañón valley, which has been considered to be an exchange route (Rojas Berscia & Eloranta 2019), also with connections to Andean societies (see e.g. Valenzuela 2015). The western portion of the area has received less attention, but there are certainly suggestions of different kinds of contact situations, involving Chicham, Barbacoan, West-Tukanoan, northern Quechuan, and Kawapaman languages, as well as possibly languages further to the south along the Andes (Wise 2011; Valenzuela 2015; Kohlberger 2020; Muysken 2021).

These considerations have led to the following sample of languages to be discussed here, which maximizes the inclusion of these contact situations. Map 1 gives the approximate locations of the languages in the sample, Table 1 lists them with their affiliations.



Map 1: The sample languages and their approximate locations.

Table 1: The sample languages with their affiliations.

LANGUAGE	AFFILIATION	LANGUAGE	AFFILIATION
Desano	Tukanoan	Shiwiar	Chicham
Kotiria	Tukanoan	Wampis	Chicham
Tukano	Tukanoan	Aguaruna	Chicham
Barasano	Tukanoan	Shiwilu	Kawapanan
Carapana	Tukanoan	Shawi	Kawapanan
Tanimuka	Tukanoan	Ocaina	Witotoan
Kubeo	Tukanoan	Murui	Witotoan
Siona	Tukanoan	Miraña	Boran
Secoya	Tukanoan	Muinane	Boran
Koreguaje	Tukanoan	Arabela	Zaparoan
Achagua	Arawakan	Iquito	Zaparoan
Tariana	Arawakan	Dâw	Nadahup
Piapoco	Arawakan	Hup	Nadahup
Resígaro	Arawakan	Yuhup	Nadahup
Warekena	Arawakan	Kakua	Kakua-Nukak
Yukuna	Arawakan	Yagua	Peba-Yagua
Imbabura	Quechuan	Tikuna	Tikuna-Yuri
Chimborazo	Quechuan	Camsá	Isolate
Calderón	Quechuan	Puinave	Isolate
Salasaca	Quechuan	Urarina	Isolate
Cañar	Quechuan	Cofán	Isolate
Napo	Quechuan	Muniche	Isolate
Pastaza	Quechuan		
Tena	Quechuan		
Loja	Quechuan		

The Tukanoan language family is entirely spoken in the NWA as it is defined here. There is a major, high-level split between east and west Tukano (Chacon 2014), which, as the name suggests, has a clear geographical correlate as well. The Arawakan languages spoken in the NWA mostly belong to the Japura-Colombian (JC) branch of the family (the majority of Arawakan languages are spoken outside the NWA). Warekena is the only non JC language in the sample, as it is classified as Alto Orinoco (Hammarström et al. 2021). The Quechuan family is mostly found in the Andean mountain range (stretching from northern Chile and Argentina to southern Colombia), but in the NWA, the family extends deep into the lowlands. In this study I have considered both lowland and highland varieties, to achieve a more complete picture for Quechua. All of the languages in the sample belong to the northern Quechua IIC branch, probably a late (Colonial) arrival in the area, certainly in the lowlands (Muysken 2000; Ciucci and Muysken 2011). The Quechuan languages in the area likely came about through processes of language shift (Muysken 2021).

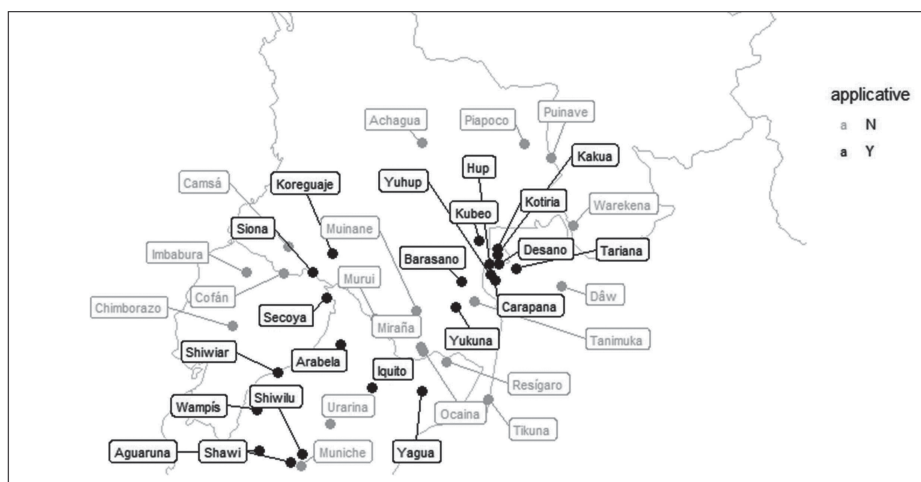
In addition, a number of smaller families and isolates are represented in the sample. The Chicham family is concentrated in the Peru-Ecuador border area, and has five known languages, of which three (Aguaruna, Wampis, and Shiwiar) are included in this study. The Zaparoan family (de Carvalho 2013) has 6 known members in Ecuador and northeast-

ern Peru, but three of these are extinct, and the others nearly extinct (Hammarström et al. 2021). Given the lack of data, only Iquitos and Arabela could be included in this study. The Kawapaman family of northeastern Peru has 2 known languages, Shiwilu and Shawi, both represented in the sample. Witotoan has 7 known languages, but most of these are poorly described, so that only Murui and Ocaina are included in the sample. Boran is a small, 2-member language family, for which the state of description allows for the inclusion of both Miraña and Muinane. Naduhup and nearby Kakua-Nukak are small families spoken in the Vaupés area, next to Arawakan and Tukanoan languages. Peba-Yaguan, and Ticuna-Yuri are small families found in the southeast of the NWA, which are represented by a single language in the sample for lack of sufficient data on the other. In addition, the sample has a few isolates: Camsá (also Kamsá) and Cofán (A'ingae) in the northeast, Puinave (Wänsohot) in the northeast, and Urarina and Muniche in the southeast.

3 Applicatives in the NWA

3.1 The distribution of applicative constructions in the sample

Before zooming in on the specific characteristics of the applicative constructions found in the area, I briefly consider the distribution of the languages that have and those that do not have an applicative construction.



Map 2: Presence versus absence of applicative constructions.

The first observation to make is that applicative constructions are not particularly widespread in the area, although the distribution may suggest some areal spread (see Map 2). As

we will see in more detail below, however, much of the observed patterns can be explained by making reference to the language family.

Some families, or branches of families, are characterized by the absence of applicative constructions. A case in point is Quechuan. Most Quechuan languages spoken further to the south have an applicative-like marker *-pu*, but the Ecuadorian and Colombian varieties of Quechua seem to have lost it. The grammars of Chimborazo (Beukema 1975) and Imbabura Quechua (Cole 1985) do not describe an applicative marker, nor does the dialectal overview study by Carpenter (1982), which includes data on most varieties of Ecuadorian Quechua. Quechuan languages belonging to the same branch (Quechua IIc) as the Ecuadorian Quechuan varieties surveyed here, but which are geographically disconnected have retained the applicative, as exemplified for Ayacucho Quechua in (1). Note that this is not an applicative construction in the strict sense, in that the verbal marker is not obligatory, and the benefactive is still marked with an oblique case, so that there is no actual promotion of oblique objects to direct object status.

- (1) Ayacucho Quechua (Quechua IIc; Sola and Parker 1964: 96)
ñuqa-paq rima-pu-wa-nqa
 I-BEN speak-BEN-1OBJ-3FUT
 ‘He will speak for me.’

Geographically nearby varieties from the northern Peruvian Upper Amazon (San Martín Quechua), that belong to a different branch have also retained *-pu*.

- (2) San Martín Quechua (Quechua IIb; Claassen 2018: 20)
pay wañu-chi-pu-n obeha-ta ñuka-pa
 he die-CAUS-BEN-3 sheep-ACC 1-BEN
 ‘He kills the sheep for me.’

In a comparative study of manuscripts, Muysken (2009: 98) concludes that the loss of the benefactive is part of a set of changes that can be dated around 1700 AD, some time after the arrival of Quechuan varieties in the area, and Muysken suggests (with some hesitation) that these later changes may be the result of substrate influences. Possibly, Barbacoan languages may have played a role, as they seem to lack morphological applicatives (see e.g. Curnow 1997 for Awa Pit, and Dickinson 2002 for Tsáfiki). For Ecuadorian Quechua, then, if anything, contact-induced changes led to the loss of applicative-like structures.

Although slightly less absolutely than Quechuan, the Arawakan languages of the sample can be characterized by a general absence of applicative constructions, with only one sample language, Yukuna, with an applicative. This lack of applicatives in the Arawakan languages of the Japura-Colombian branch is in contrast to Arawakan languages spoken to the south of the NWA, in south and central Peru, which tend to have several applicative morphemes. For instance, Michael (2008: 285–289) describes four

applicative suffixes in Nanti (instrumental *-aNt*, “presencial” *-imo* ‘in the presence of’, separative *-apitsa*, and indirective *-ako*). Mihas (2015: 275) also lists a number of different morphological applicative constructions for Asháninka Perené, including a sociative-causative *-aka* and three applicative morphemes that seem to be formally related: benefactive *-vint/-vent*, benefactive/recipient *-ront/-nont* and instrumental/reason *-ant*.

The Witotoan language family, of seven known members, is mostly scantily described, with the exception of Murui and Ocaina, which have full grammars devoted to them (Wojtylak 2017 and Fagua 2013, respectively). Wojtylak (2017: 380–390) describes two valency-increasing constructions, both causative. Addition of causative *-ta* to intransitives or transitives results in the demotion of the original subject to object (resulting in double object constructions for underlying transitives), and the introduction of a causer subject. It can also apply to non-verbal elements with a verbalizing effect. The second construction is a double causative, with the marker *-ta* applied twice, and introducing two causers. The grammar describes no applicative constructions. This seems to be true for sister language Ocaina as well. Fagua (2013: 273) reports three lexically determined causative allomorphs: *-(ʔ)ta*, *-ha*, and *-(ʔ)sa*, but no applicatives.

The Boran language family has two known members, of which Miraña is best described. The descriptions by Seifart (2005) and Thiesen and Weber (2012) discuss causation and reflexivity, but no applicative among the valency-changing operations. The causative morpheme is *-ts^ho*, which again is formally similar to some of the other markers of the area, as observed by Crevels and Voort (2020). Sister language Muinane has received less descriptive attention, but it does not seem to have an applicative construction either, and the causative suffix *-su* seems to be related to Miraña’s causative marker (see de Vengoechea 2012: 172–174 for a description).

Finally, some of the (near)-isolates also lack applicative constructions. Tikuna has three antipassive morphemes (*-ètà*, *-ē*, *-tàē*) as well as a causative suffix (*-’é’e*). There are also passive and factitive operations that are not associated to specific dedicated morphology (Bertet 2020: 365–385), but no applicatives. There does not seem to be any applicative construction in Camsá (isolate) either. Arguments (case marked) can simply be added to the core (O’Brien 2018: 206). There are also double-object constructions, but without any marking on the verb (ibid.: 207). Girón (2008: 360–363) discusses a morphological causative in Puinave (isolate) that can increase the valency by one, adding a causer participant, but sometimes it also just changes the role of the agent. In addition, there are valency-decreasing operations (ibid.: 363). There seem to be no applicatives, however. Urarina (isolate) has valency-decreasing possibilities (reflexive, passive, detransitivizer), and also a number of causative operations: *-erate* which attaches to either intransitive or transitive verbs, the less productive *-a* attaches to intransitives only. Additional causative strategies involve syntactic constructions with the verb *letoaa* ‘send’ (Olawsky 2006: 609–622), but again, there is no description of an applicative construction. Arguments beyond the core are marked with the oblique marker *-ke* (ibid.: 622). Although the description of Cofán (isolate) is patchy, an overview paper (Fischer and Hengeveld 2023) discusses several

causative morphemes or allomorphs (*-an*, *-en*, *-ña*) but no applicative constructions. Like Cofán, Muniche (isolate) is not very thoroughly described. Both Gibson (1996: 65) and Proyecto de documentación del idioma Muniche (2009: 20–21) describe only causative *-cha/-chi* in terms of valency-increasing operations.

3.2 The morphology of NWA applicatives

For the sample languages that *do* have applicative constructions, Table 2 lists the forms.

Table 2: The Tukanoan languages of the sample and their applicative markers.

Language	Form	Source
Desano (Tukanoan)	<i>-basa</i>	Miller (1999: 117–118)
Kotiria (Tukanoan)	<i>-bosa</i>	Stenzel (2013 344–345)
Tukano (Tukanoan)	<i>bosa</i>	Ramirez (1997: 178–180)
Barasano (Tukanoan)	<i>-bosa</i>	Jones and Jones (1991: 68)
Carapana (Tukanoan)	<i>-boja</i>	Metzger (1981: 81–82)
Kubeo (Tukanoan)	<i>-ka</i>	Morse and Maxwell (1999: 60–61)
Siona (Tukanoan)	<i>-ka</i>	Bruil (2014: 213, 251)
Secoya (Tukanoan)	<i>-cai</i>	Johnson and Levinsohn (1990: 64)
Koreguaje (Tukanoan)	<i>-kʰaj</i>	Cook and Criswell (1993: 72–73)
Yukuna (Arawakan)	<i>-ñaai/-ñai/-ña</i>	Lemus Serrano (2020: 75–76)
Aguaruna (Chicham)	<i>-hu/-tu</i>	Overall (2007: 306–307)
Wampis (Chicham)	<i>-hu/-tu</i>	Peña (2015: 584–594)
Shiwiar (Chicham)	<i>-hu/-tu</i>	Kohlberger (2020: 297–302)
Shiwilu (Kawapanan)	<i>ek-</i>	Valenzuela (2016: 516)
Shiwilu (Kawapanan)	<i>-lapi</i>	Valenzuela (2016: 516)
Shiwilu (Kawapanan)	<i>-pa</i>	Valenzuela (2016: 516)
Shiwilu (Kawapanan)	<i>-tu</i>	Valenzuela (2016: 516)
Shiwilu (Kawapanan)	<i>-i</i>	Valenzuela (2016: 516)
Shiwilu (Kawapanan)	<i>-wa</i>	Valenzuela (2016: 516)
Shiwilu (Kawapanan)	<i>-nan</i>	Valenzuela (2016: 516)
Shawi (Kawapanan)	<i>ichi-</i>	Rojas Berscia (2013: 92)
Shawi (Kawapanan)	<i>-tē</i>	Hart (1988: 269); Rojas Berscia, 2013: 50)
Arabela (Zaparoan)	<i>-t(i)a</i>	Rich (1999: 55–57)
Iquito (Zaparoan)	<i>-nii</i>	Lai (2009: 299, 301); Michael (2009: 155)
Hup (Naduhup)	<i>-ʔūh</i>	Epps (2008: 500)
Kakua (Kakua-Nukak)	<i>-āʔbuhú</i>	Bolaños (2016: 338)
Yagua (Peba-Yaguan)	<i>-ta</i>	Doris L. Payne (1985a: 271–278)

On the basis of Table 2, a number of generalizations can be made. All applicative markers in the sample languages appear to the right of the lexical verb, mostly in the form of a suffix, although in East Tukanoan languages the markers, which are clearly cognates, show different degrees of morphophonological integration with the stem. In the Colom-

bian East-Tukanoan language Tukano, *bosa* is regarded as a dependent verb in a serial verb construction. Although dependent verbs in this language are underlyingly toneless and thus prosodically dependent, they do not partake in nasal spread. In addition, many dependent verbs can also be used as independent verbs. They also appear closer to the root than *bona fide* suffixes, and they are bimoraic, unlike suffixes (Ramirez 1997: 173). A serial verb construction involving the root *bosa* is exemplified in (3).

- (3) Tukano (East Tukanoan; Ramirez 1997: 185)

Pédudu-de da'da bosa-bĩ
 Pedro-OBJ work BEN-PRES.VIS
 'He works for Pedro.'

Likewise, in Kotiria, *-bosa* is part of a set of noninitial verb roots, which appear contiguous to an initial verb root, and can be contrasted with nonroot stem morphemes, which appear further from the root, and represent a layer of verbal morphology that is more grammaticalized (Stenzel 2013: 244–245).

- (4) Kotiria (East Tukanoan; Stenzel 2013: 209)

yũ'ũ wa'ĩ-ré do'á-bósá-ĩ-tá mũ'ũ-ré
 1SG fish-OBJ cook-BEN-1/2.M-INT 2SG-OBJ
 'I'm going to cook the fish for you.'

In Barasano, *-bosa* is analyzed as a suffix, and elements can come in between it and the verb root (although the reverse order is also possible).

- (5) Barasano (East Tukanoan; Jones and Jones 1991: 68)

yũ karta yũ-re ābi-a-bosa-ya bĩ
 1SG letter 1SG-OBJ pick.up-MOT-BEN-PRES.IPFV 2SG
 'Take my letter for me.'

In Carapana, the benefactive marker *-boja* is regarded to be a second order suffix. The difference between second order and first order suffixes in Carapana is that the latter may occur on the initial member of a serial verb construction, the latter cannot (Metzger 1981: 60). The analysis furthermore suggests that the second order suffixes are further removed from the root than the first order suffixes if both types occur, but unfortunately, Metzger does not provide examples to corroborate this directly.¹ Example (6) gives an instance of the use of the suffix *-boja*.

¹ He does, however, give examples of the second order suffix *-nucũ*, which shares the same slot as *-boja*, in combination with first order suffixes, which indeed precede it.

(6) Carapana (East Tukanoan; Metzger 1981: 82)

yɪ áti-boja-ya

I do-BEN-IMP

'Please do (it) for me

Flexivity is relatively uncommon for the applicative markers in the sample, but it does occur. Yukuna (Lemus Serrano 2020), for instance, has a morpheme *-ñaa* with allomorphs *-ñai*, and *-ña*. The variant *-ñai* is morphologically conditioned by the presence of the past tense marker *-cha*; *-ñaa* and *-ña* are free variants.

In all three Chicham languages, there is lexically determined allomorphy, as well as homophony with the first person singular object marker, which shows the same allomorphy with the same distribution. The first person object in combination with the applicative, yields deviant, but systematic patterns, as shown for Aguaruna in Table 3.

Table 3: Morphological interaction of noun class, applicative marking, and first person object marking in Aguaruna (Overall 2007: 319).

class	applicative	1sg.obj	applicative+1sg.obj
1	<i>-hu</i>	<i>-hu</i>	<i>-hu-tu</i>
2	<i>-tu</i>	<i>-tu</i>	<i>-tu-hu</i>

Whereas the more abstract formal characteristics discussed above show a number of similarities across languages, with a tendency towards suffixation, or at least the order lexical verb – applicative marker, the forms themselves show considerable variation, which seems to be mainly constrained by genealogical units.

The Tukanoan languages in the sample feature two recurring forms to mark applicatives: *-ka* and *(-)bosa/basa*. These two markers follow an almost perfect East-West distinction, the former being mostly restricted to West Tukano, the latter to East Tukanoan languages. The only exceptions are the East Tukanoan language Kubeo, which follows a western pattern, and Tanimuka (also East Tukanoan), for which no applicative marker is described. As discussed above, the element *bosa* and related forms in the East Tukanoan languages seems to have its origin in a serial verb construction, and presently is in different stages of grammaticalization towards becoming an affix in the different languages. This suggests that the form *-k(h)a(j)* and its reflexes may represent an older form. That Kubeo, as the only East Tukanoan language has retained the probably older form is in line with the assessment that Kubeo has relatively more retentions and probably developed in relative isolation from the other East Tukanoan languages (Chacon 2013: 414–418).

The Chicham languages also show a clearly coherent pattern. The forms in the three languages are clearly cognate (*-hu/-tu* in Aguaruna, *-ru/-tu* in Wampis and Shiwiar), the allomorphy follows the same pattern, including the pattern given in Table 3, and, as we

will see below, the syntax (§ 3.3) and semantics (§ 3.4) are also very similar. All of these very specific commonalities strongly suggest that the applicative, with its idiosyncrasies, can be traced back to Proto-Chicham. This is relevant in the discussion of *ta*-like applicative markers, of which Chicham languages are hypothesized to be part (Crevels and Voort 2020: 189). If so, then areal influence must have taken place prior to the diversification of the family, or else the Chicham languages must be hypothesized to be among the donor languages for the areal spread of this form.

The remainder of the families in the sample show a less coherent picture, unless it is in terms of the absence of applicative constructions (see § 3.1 above). Of the Arawakan languages in the sample, only Yukuna² has an applicative construction, marked with *-ñaa*. Hanson (2010: 272–280) describes two applicative morphemes for Yine, an Arawakan language spoken outside the NWA region in southern Peru, one of which is *-ya*, marking a number of different roles, including source and malefactive, two meanings also found for the applicative construction in Yukuna. This marker may therefore be cognate with Yukuna *-ñaa*, but this requires further research. Lemus Serrano (2020) mentions that the lexical source for the applicative marker in Yukuna is probably the verb *ñáa/ñái* ‘escape from’.

Kawapanan Shiwilu and Shawi are the only languages in the sample with more than one applicative construction. Although they differ considerably from each other in their inventories, the prefixes *ek-* (Shiwilu) and *ichi-* (Shawi), as well as the suffixes *-tu*³ (Shiwilu) and Shawi *-të* (pronounced /ti/ or possibly /tu/, with allomorph *-ta* in combination with progressive verb semantics), can be considered cognates, but the remainder of Shiwilu applicatives do not seem to be present in Shawi. The two Kawapanan languages, then, show both stability and change regarding morphological applicative marking, as either Shawi has lost a number of applicative and applicative-like constructions, or Shiwilu has acquired them through contact. The functional overlap with some pre-Andine Peruvian Arawakan languages (presential, relinquitive) would suggest a potential connection with Shiwilu (see Section 4).

Zaparoan languages Iquito and Arabela also show disparity in their applicative markers. Iquito *-nii* is possibly related to one of the causative allomorphs of Arabela, although at this point this is only a conjecture. Arabela *-ta/-tia* introducing an accompanying person or thing for the patient of a transitive or the S of an intransitive verb, with a range of interpretations (Rich 1999). The allomorphy is also present in the form of the

2 Tariana has syntactic (labile verbs) and morphological lookalikes. The morpheme surfacing in the latter clearly has a different etymology than the marker in Yukuna.

3 Valenzuela (2016) distinguishes two markers *-tu* in Shiwilu, which are historically related. One is analyzed as an applicative (with locative semantics), the other, termed valency modifier, is not analyzed as an applicative, but its presence is required with some of the applicatives. In addition, *-ta* can appear on its own with differential effects on the valency of the base verb (decreasing or increasing). The Shawi marker *-të* is semantically closer to this latter use of Shiwilu *-tu*, suggesting that the locative applicative use was a later development in Shiwilu.

homophonous instrument marker *-ta/-tia*, as noted by Payne (1985a) and Rich (1999), who assumes that the applicative marker stems from the instrument postposition (p. 76).

Given that the instrument markers in Arabela and Iquito may well be related, and given that only Arabela seems to have extended its use to an applicative, it may well be that this grammaticalization process was influenced by Yagua, as suggested by Wise (2002). For Yagua, Payne (1985a: 271) discusses the marker *-ta*, which is most frequently used to license semantic comitatives or instruments.⁴ The same marker is also found with nouns, where it marks the comitative/instrument role. These facts seem to point at a shared history between Arabela and Yagua, although the nature of this shared history is subject to debate (see Section 1 above). Interestingly, Yagua has a lexically restricted causative morpheme *-niiy* which may be related to Arabela causative *-ni*. Although it is unclear what the distribution of *-ni* in Arabela is, the fact that it is presented as one of many causative morphemes leaves open the possibility that *-ni* in Arabela is also lexically restricted. In addition, Yagua has the productive causative marker *-taniiy*, possibly a combination of the *-ta* applicative and causative *-niiy*. In short, although all of this requires further research, there is a very likely connection between Yagua and Arabela *-ta*, as well as a possible connection between Yagua *-niiy*, Arabela *-ni* (both causative), and Iquito *-nii* (applicative).

The final languages to be discussed for this section are Hup and Kakua. The suffix *-ʔüh* in Hup adds an animate participant (Epps 2008: 500). This marker (in slightly different guises) has a number of seemingly unrelated functions. In preverbal or independent position, it marks reciprocal and a kin term (sibling of opposite sex). As a postverbal marker it can indicate applicative, jussive, and epistemic modality. The uses of preverbal and postverbal each seem to be related, and it may even be that all of these are historically related (see Epps 2008: 504–505 for discussion).

For the sister languages Yuhup and Dâw, no applicative construction is described, but Yuhup has a possibly related element *~jah*, which Ospina Bozzi (2002: 400) analyzes as a bleached and eroded verb root of the verb ‘let, allow’, which has among its functions (next to e.g. causative and permissive uses, but also reflexive, intensity and repetition) the ability to introduce an experiencer argument, affected by the situation, to an originally intransitive clause (ibid.: 402–407). The situation in Dâw is less clear, but Martins (2004: 266) mentions a grammaticalization path of the verb *dóʔ* from a movement verb to verb of causation or permission in verbal compounds. However, there seems to be no extension towards an applicative-like use. In addition, Dâw has a transitivity operation (marked by a descending tone). Although it is sometimes associated with partly unpredictable semantics, it mostly seems to have a causative effect (Martins 2004: 180). All in all, there seems to be a family-internal grammaticalization process, from serial verb construction to affix, which has led to an unusual set of functions of historically

⁴ Some of the examples discussed in Payne (1985a, e.g. p. 275) suggest that the marker *-ta* in Yagua also has an allomorph *-tya*.

related markers, including both valency-increasing and valency-decreasing uses in Hup and Yuhup.

Bolaños (2016) discusses no valency-increasing operations for Kakua (Kakua-Nukak).⁵ In fact, she mentions that the reflexive/reciprocal prefix *mĩk-* is the only valency-changing morpheme of the language (Bolaños 2016: 247). There is, however, a benefactive imperative, though, with the marker *-áʔbuhú*, which licenses a benefactive participant.

(7) Kakua (Kakua-Nukak; Bolaños 2016: 338)

kǎn=dĩʔ ʔibʔ-áʔbuhú

3SG.M=OBJ take.out-IMP.BEN

‘Take (it) out for him.’

Given the length of the morpheme, Bolaños assumes that it is diachronically complex. A possible element of the suffix is the directional enclitic *=buh*, which in turn comes from a verb root meaning ‘to perform an action from a distance’, which may be connected to performing an action on someone’s behalf (Bolaños 2016: 338–339).

In conclusion, although the very general formal aspects of the applicative markers coincide to some degree (they tend towards morphological, suffixal expression), the forms themselves suggest more family-internal developments.

3.3 The syntax of applicative constructions in the sample

In this section, I highlight the more syntactic aspects of the applicative constructions found in the area, focusing mainly on the expression and morphosyntactic marking of arguments, particularly in relation to clauses with underived transitive and ditransitive verbs. Unfortunately, the available information in the grammars does not allow for a systematic treatment of the potential of applicative constructions to form input for further valency-changing operations, or for relative clauses. I will therefore have less to say about how applicative constructions relate to other constructions, and restrict myself to making occasional remarks where information was available. Given that the languages of the area employ a range of techniques to mark grammatical relations, and that these techniques tend to be relatively homogeneous within language families, the discussion in this section will be organized around families.

Tukanoan languages are nominative-accusative in that S and A arguments are treated the same in terms of case marking and indexing, and differently from P arguments. Most

⁵ There is some debate with respect to the genealogical affiliation of Kakua and Nukak, as Martins (2005) proposes they are part of the Nadahup family. Jolkesky (2016) also includes Puinave in this genealogical unit. Epps and Bolaños (2017) consider a distant connection between Nadahup, Kakua-Nukak, and Puinave plausible, but at this point inconclusive. In this paper I follow the most conservative classification of Epps and Bolaños (2017).

Tukanoan languages have a system of differential object marking, where the presence of the object marker interacts with definiteness and specificity. The same marker is also used to code a wider range of roles, but without the differential aspect. In terms of indexing on the verb, Tukanoan languages mark the subject (S/A) but not the object.

The presence of the applicative marker in Tukanoan languages licenses an argument that is marked with the case marker *-re*. The construction does not promote an otherwise oblique participant in that there seems to be no alternative way to express beneficiaries (on the interpretation of the applied object in Tukanoan languages, see Section 3.4). With respect to the flagging behavior (there is no object indexing in Tukanoan languages, so the discussion will be restricted to flagging), the applied object does not always behave entirely similar to direct objects, however. This can be illustrated with data from Kotiria. Kotiria objects can be marked with the suffix *-re*. However, as mentioned above for Tukanoan more broadly, direct objects are not always flagged in Kotiria: non-flagged direct objects are less specific and definite than flagged objects. Zero-marked direct objects in Kotiria are only possible in immediately preverbal position.

(8) Kotiria (East Tukanoan; Stenzel 2013: 331)

- a. *hí-phiti-ro chù adá-ta-ra*
 COP-COLL-SG food get-come-VIS.IPFV.2/3
 ‘Everyone brings a lot of food.’
- b. *tí-da dá-sá chúa-re chù yoá-ra*
 ANPH-PL get-MOT.inside food-OBJ eat do/make-VIS.IMPFV.2/3
 ‘They take the food inside and eat.’

The marker *-re* is also used for flagging R participants in ditransitive constructions, for temporal adjuncts, and spatial complements of motion predicates that have been established in the preceding discourse. Example (9) illustrates the inherently ditransitive verb *wa-* ‘give’, which takes two objects, both marked with *-re*.

(9) Kotiria (East Tukanoan; Stenzel 2013: 161)

- múʔu=yahírhoʔna-re yuʔu-re wa-ga*
 2SG.POSS=heart-OBJ 1SG-OBJ give-IMP
 ‘Give me your heart.’

The recipient in these constructions with inherently ditransitive verbs is always marked with *-re*. In other words: there is no pattern of differential case marking for indirect objects. The same pattern can be observed with applied objects. Applied objects therefore behave as R participants in ditransitive constructions. Inherently intransitive verbs with the applicative marker *-bosa* are not discussed in Stenzel (2013), whose description of *-bosa* as “increas[ing] the valency of the independent verb from one to two object arguments” suggests that *-bosa* only combines with transitive bases.

To the extent that I have been able to ascertain, this non-differential marking pattern of the applied object as well as indirect objects of underived ditransitives is found almost throughout the Tukanoan languages of the sample, independently of whether they follow the *-k(h)a(i)* pattern or the *-bosa/basa* pattern. Tukano marginally allows differential object marking for indirect objects. In Example (10), the morpheme *diki* ‘each’ makes the indirect object participant generic, according to Ramirez (1997: 227).

- (10) Tukano (Tukanoan; Ramirez 1997: 227)

dãâ-diki o’ô-ya teé-de
 they-each give-IMP those.things-OBJ
 ‘Give those things to each of them.’

In addition, Example (6) above suggests that in Carapana, differential case marking is also available for applied objects. It is not clear from the description in Metzger (1981) whether this is true more generally for R participants of monomorphemic ditransitives.

The Arawakan languages generally have no core case marking, but Yukuna marks R participants in ditransitive constructions with the oblique enclitic *=jló*, illustrated in (11).

- (11) Yukuna (Arawakan; Lemus Serrano 2020: 68)

na=a’-chá píño [ri=jló]_{OBL} [kujnú]_O.
 3PL=give-PST again 3SG.NF=to cassava
 ‘They gave cassava to him again.’

The applied objects pattern with direct objects in being unmarked. The applicative seems to combine with intransitives only, forming transitives, so in that sense, a regular transitive syntactic frame is associated with the applicative.

- (12) Yukuna (Arawakan; Lemus Serrano 2020: 68)

Chúwa tâ kája wa=i’jna-ñáa pi=ikhá.
 now EMPH already 1PL=go-APPL 2SG=PRO
 ‘We’re leaving you now.’

The Chicham languages are strictly nominative-accusative, and employ both case marking (including an accusative marking) and indexing (subject and object) to code grammatical relations. Object indexing is only available for speech act participants in all three Chicham languages investigated here, third person objects are unmarked. Shiwiari and Wampis have portmanteau markers for certain scenarios.⁶ Both direct and

⁶ Shiwiari uses portmanteau suffixes for all scenarios involving SAP objects except first person singular, Wampis has portmanteau markers for local scenarios involving a second person object.

indirect objects can control object indexing. With ditransitive verbs, the verb will mark an SAP object if available. This generally is the R participant.

- (13) Aguaruna (Chicham; Overall 2007: 316)

mi-na su-hu-sa-ta
 1SG-ACC give-1SG.OBJ-ATT-IMP
 ‘Give it to me!’

The presence of an applicative marker makes the object indexing slot available for the applied object, as can be seen in (14) from Shiwiar.

- (14) Shiwiar (Chicham; Kohlberger 2020: 298)

papá-r=ka hĩá=n naha-t-ru-á-mia-ji
 father-1SG.POSS=TOP house=ACC make-APPL-1SG.OBJ-PFV-REM.PST-3.DECL
 ‘My father made me a house.’

Example (15) illustrates that overtly expressed applicative participants are marked with the accusative.

- (15) Aguaruna (Chicham; Overall 2007: 306)

amitĩ mi-na atafu-na yu-hu-tu-a-ĩ
 fox 1SG-ACC chicken-ACC eat-APPL-1SG.OBJ-HIAF-3:PFV
 ‘A fox ate my chicken.’

On the other hand, Peña (2015) reports that the applied object optionally carries a benefactive marker in addition to the accusative marker:

- (16) Wampis (Chicham; Peña 2015: 591)

[*mama=na*] [*ui-nau=na*] *hii-tu-ma-ji*
 manioc=ACC 1SG-BEN=ACC pull.out.PFV-APPL-REC.PST-3.PST+DECL
 ‘He harvested manioc for me.’

There are also cases where the applicative does not trigger object marking on the verb. This is the case in semi-reflexive interpretations in Wampis, where the applicative participant is identical to the subject.

- (17) Wampis (Chicham; Peña 2015: 590)

napi=na karama-ru-u a-sa-nu fiitra-tfau
 boa=ACC dream.of-APPL-NMLZ COP-SUB-1SG.SS good-NEG.NMLZ
nikapi-a-ha-i
 feel-IPFV-1SG-DECL
 ‘Having dreamed of the boa (to my detriment), I feel bad.’

As can be seen, the applicative here does not license a 1SG object marker on the verb, and so it does not seem to increase the valency of the (already transitive) verb *karama* ‘dream of’. It is not clear to what extent this type of construction exists in the other Chicham languages. Kohlberger (2020: 299) discusses similar examples for Shiwiar (i.e. without object indexing), but they include a reflexive marker (a construction that also exists in Wampis, see e.g. Peña 2015: 890).

Like the Chicham languages, the Kawapanan languages of the sample display both person indexing on the verb and case marking on nominal arguments, although the families differ in the more detailed aspects of their systems. In Shiwilu, both arguments are obligatorily marked on the verb by means of a portmanteau indexing suffix, with the exception of scenarios with a third person object, which take the unipersonal subject markers also found on intransitive verbs. Ditransitive verbs take the portmanteau morphemes, which refer to the A and R arguments, leaving the T argument unmarked (Valenzuela 2016: 520). Shawi indexing follows a system of separable subject and object markers. Subject markers also differ according to tense and mood (Rojas Berscia 2019). The object index in transitive clauses seems to refer to the R argument.

- (18) Shawi (Kawapanan; Bourdeau 2015: 26)

kiya-ri-n-su *pei* *keta-ra-i-nkema*.
 1PL.EXCLM-ERG-?-DEF house give-IND-1.PL.EXCL-2.PL.O
 ‘We will offer you a house.’

In terms of case marking, the Kawapanan languages have an optional marker of A participants, =*ler* in Shiwilu, -*ri* in Shawi, whose appearance is conditioned by disambiguation requirements and pragmatic status (Valenzuela 2015: 42–45).

Applicative constructions in Shiwilu follow transitive or ditransitive patterns in that the applied object is indexed on the verb:

- (19) Shiwilu (Kawapanan; Valenzuela 2016: 528, 533)

- a. *ñiñi’wa=pen* ***ek-pekla-llun***. */*pekla-llun*
 dog=POSS.2SG SOC.CAUS-produce.noise-NFUT.3SG>1SG
 ‘Your dog barked at me.’
- b. *Papa=wek* *tek-susu-pa’-llun* *wila=wek*.
 father=POSS.1SG CAUS-grow-APPL-NFUT.3SG>1SG child-POSS.1SG
 ‘My father helped me raise my child.’

Applicatives that combine with ditransitive roots mark the applied (fourth) argument on the verb:

(20) Shiwilu (Kawapanan; Valenzuela 2016: 530)

Pidir uku'la-lapi-llun kusher=wek.

Fidel sell-APPL-NFUT.3SG>1SG pig=POSS.1SG

'Fidel sold my pig (to sb. else) and left leaving me behind.'

(for example, acted without my consent and left with the money)

At least some of the applicatives also allow for passivization, confirming the object status of the applicative:

(21) Shiwilu (Kawapanan; Valenzuela 2016: 528, 535)

a. *Kwa ek-pekla-pi=ku nuka'-ka*

1SG SOC.CAUS-produce.noise-NMLZ=PRED.1SG COP-1SG

(*ñini'wa=pen=lek*).

dog=POSS.2SG=INSTR

'I was barked at (by your dog).'

b. *Imicha anu'-tu-pi nuka'-a tunla=lek.*

Emérita fall-LOC-NMLZ COP-3SG worm=INSTR

'Emérita was fallen on by the worm.'

Some markers (*-i*, *-wa*, *-nan*, *-willi*) require the presence of the valency modifier *-tu*, a construction termed double applicative marking by Valenzuela (2016).⁷ The marker *-tu* can either increase or decrease valency, depending on the verbal⁸ host.

Example (22) illustrates such a double applicative construction with affective *-i*. One way to interpret this construction is that the applicative morpheme that precedes *-tu* functions as its specifier, not only forcing a valency increase interpretation, but guiding the interpretation of the role of the applied object.

(22) Shiwilu (Kawapanan; Valenzuela 2016: 536)

a. *wila=wek=sha ipa' wichi'-lli*

child=POSS.1SG=DIM already fall.asleep-NFUT.3SG

'My little grandson already fell asleep'.

b. *Wila=wek=sha ipa' wichi'-i-tu-llun. /*wichi'-i-llun*

child=POSS.1SG=DIM already fall.asleep-APPL-VM-NFUT.3SG>1SG

'My little grandson already fell asleep to my benefit.'

The situation for Shawi is less clear. Example (23) suggests that the sociative causative adds an object argument that can control person indexing on the verb. Semantically

⁷ Valenzuela regards the valency modifier *-tu* to be synchronically different from the locative marker *-tu*, although they are historically related,

⁸ The marker also attaches to adjectives or nouns to form verbs.

speaking, these sociative causatives can be argued to be either causatives or applicatives, depending on what is regarded as the underlying (in the sense of the event without the valency-increasing marker): ‘I work’ or ‘you work’ in Example (23) below.

- (23) Shawi (Kawapanan; Bourdeau 2015: 25)
Ka-ri=nke ichi-saka-te-ra-(w)-nke.
 1-ERG=2.OBJ SOC.CAUS-work-VAL-IND-1-2.OBJ
 ‘I make you work (and work with you).’

Barraza de García (2005), focusing on the Sillay variety of Shawi, shows that the multi-functional marker *-ti* in its applicative use licenses object indexing of the applied argument on the verb.

- (24) Shawi (Kawapanan; Barraza de García 2005: 175–176)
mašu-ri imu-ti-r-in-nkin
 old.man-ERG/TOP vomit-APPL-IND-3-2
 ‘The old man has vomited on you.’

Zaparoan languages Arabela and Iquito do not mark objects, either on the verb or on the noun, although Arabela has some different pronominal forms, depending on the function. For peripheral functions, postpositions or case suffixes are used, which form a large group. The lack of morphosyntactic marking of core arguments makes it harder to show the morphosyntactic effects of the applicative. The main characteristic of interest is that in applicative constructions, the applied object bears no case marker or adposition, suggesting it is part of the core, as can be seen for the applied objects *morejaca* ‘yuca’ in (25) and *nuú* ‘him’ in (26).

- (25) Arabela (Zaparoan; Rich 1999: 55–57)
cua morejaca tiurii-tia-ree-nijia.
 1SG yuca trip-APPL-PFV-1SG
 ‘I tripped with my load (yuca).’
- (26) Iquito (Zaparoan; Michael 2009: 155)
piyüini yahuüni=jina nu=árii-yaáriqui tií
 all day=LOC 3SG=pass.by-REM.PST.IPFV there
nu=puhuaajü-nii-yaáriqui=na nuú.
 3SG=whistle-APPL-REM.PST.IPFV=REP 3SG
 ‘Whenever he passed by there, it (a forest spirit) whistled at him.’

Yagua indexes the gender or person/number information of subject arguments on the verb when no subject NP is expressed, or if the subject NP is expressed post-verbally (and there are different sets for animate and inanimate subjects). Objects are generally

marked by enclitics,⁹ which immediately precede the object NP, but prosodically attach to any constituent that precedes them. When no object NP is expressed, the object clitics tend to be clause-final. Yagua does not have any core case markers. Payne (1985a: 271) discusses the marker *-ta*, which is most frequently used to license semantic comitatives or instruments. The same marker is also found with nouns, where it marks the comitative/instrument role. The following pair shows the uses of *-ta* as a postposition (27a) and as an applicative marker (27b).

(27) Yagua (Peba-Yaguan; Payne 1985: 273–274)

- a. *sa-jìchitìy jùmurutaa-ta-rà tîístaaasuuy*
 3SG-poke machete-COM/INSTR-INAN ball
 ‘He pokes the ball with a machete.’
- b. *sa-jìchitìy-ta-rà jùmurutaa-rà tîístaaasuuy*
 3SG-poke-APPL-INAN machete-INAN ball
 ‘He pokes the ball with a machete.’

As can be seen in this example, the presence of the applicative marker on the verb in (27b) licenses the presence of a non-case-marked instrumental NP, as well as the presence of the inanimate marker *-rà*, immediately preceding its referent *jùmurutaa*, effectively creating a double-object construction. This is the same type of construction as an underived ditransitive (Doris L. Payne, 1985a: 274).

Kakua indexes subjects on the verb by means of proclitics, and marks objects (both direct and indirect) on the NP by means of a case clitic *=dì?*. This case marker is compatible with a wide range of semantic interpretations, including patient, benefactive, malefactive. As is common in the area, Kakua marks objects differentially, although the exact parameters governing the presence or absence of the object case marker are not entirely clear (see Bolaños 2016: 191–205 for discussion). The applicative in Kakua, restricted to imperatives, does allow for marking of the applied object with the object marker, but since benefactive is part of the semantics of the object marker, and since there seems to be no alternative base construction, it is unclear to what extent this constitutes a *bona fide* applicative construction.

(28) Kakua (Kakua-Nukak; Bolaños 2016: 338)

- kān=dì? ?ib?-á?buhú*
 3SG.M=OBJ take.out-IMP.BEN
 ‘Take (it) out for him.’

⁹ It is not clear what exactly governs or licenses the absence of object enclitics. Doris L. Payne (1985a: 46–48) suggests that it may be determined by specificity and individuation of the object argument, but acknowledges that there are situations with specific, individuated object participants, which nevertheless do not trigger object clitics.

However, if we compare (28) to an imperative of a three-place verb like ‘give’, the recipient can also be marked with the object case, but no special imperative form is required, suggesting that *-á?buhú* does extend the valency of two-place verbs to three, which then behaves in the same way as an underived ditransitive.

- (29) Kakua (Kakua-Nukak; Bolaños 2016: 189)
Hāmu=di? ma=nim=di? ma=wĩ?-í
 Hamu=OBJ 2SG-daughter=OBJ 2SG=give-IMP
 ‘Give Hamu your daughter!’

Like Kakua and other languages of the area, Hup also has a system of differential object marking. The case marker for objects is *-ān*, which obligatorily marks human objects, while non-human animates are optionally marked, and inanimates remain unmarked. Case marker *-ān* is also used for beneficiaries and recipients, but in that role there is no differential marking (Epps 2008: 166).¹⁰ The suffix *-ʔūh* in Hup adds an animate participant. The added participant is most commonly a recipient, benefactive or malefactive (Epps 2008: 500). The participant introduced in this way is marked as an object if overtly expressed.

- (30) Hup (Nadahup; Epps 2008: 501)
hid (tth-ān) g’āʔ-ʔūh-ūy
 3PL 3SG-OBJ be.suspended-APPL-DYN
 ‘They’re lying in (someone’s) hammock.’ (i.e., without his knowledge or approval)

Summarizing the patterns discussed above, applied objects generally follow marking patterns that exist for direct and indirect objects of underived verbs, with a tendency for increased morphological markedness of applied objects in some languages, and decreased markedness in others:

- In systems with differential object marking, the applied objects tend to always be marked (Tukanoan, Hup, possibly Kakua).
- In languages with object indexing on the verb with a single slot available, the applied object gets preference over other potential controllers (Chicham, Kawap-anan).
- In languages without core case marking, applied objects are zero-marked, unlike oblique arguments (Yagua, Zaparoan, Yukuna).

¹⁰ There is also a historically related oblique marker *-an*, which marks several kinds of locational relations. This marker shows a close resemblance to the object marker, the only difference being the rising tonal pattern in the object marker. It is not always clear which formative is used (Epps 2008: 184).

There is some variation in terms of the transitivity of the host, which is summarized in Table 4—to the extent that this could be determined on the basis of the written sources (these are the same as the sources given in Table 2 above, of which Table 4 is an extension).

Table 4: Overview of applicatives in the sample in terms of form, possible hosts, and morphosyntactic marking.

Language	Form	host	morphosyntactic marking
Desano (Tukanoan)	<i>-basa</i>	transitives	object case
Kotiria (Tukanoan)	<i>-bosa</i>	transitives	object case
Tukano (Tukanoan)	<i>basa</i>	transitives	object case
Barasano (Tukanoan)	<i>-bosa</i>	transitives	object case
Carapana (Tukanoan)	<i>-boja</i>	transitives	object case
Kubeo (Tukanoan)	<i>-ka</i>	transitives	object case
Siona (Tukanoan)	<i>-ka</i>	transitives	object case
Secoya (Tukanoan)	<i>-cai</i>	transitives	object case
Koreguaje (Tukanoan)	<i>-k'aj</i>	transitives	object case
Yukuna (Arawakan)	<i>-ñaa/-ñai/-ña</i>	intransitives	zero
Aguaruna (Chicham)	<i>-hu/-tu</i>	transitives, intransitives	object case, object index
Wampis (Chicham)	<i>-hu/-tu</i>	transitives, intransitives	object case, object index
Shiwiari (Chicham)	<i>-hu/-tu</i>	transitives, intransitives	object case, object index
Shiwilu (Kawapanan)	<i>ek-</i>	transitives, intransitives	object index
Shiwilu (Kawapanan)	<i>-lapi</i>	intransitives	object index
Shiwilu (Kawapanan)	<i>-pa</i>	transitives	object index
Shiwilu (Kawapanan)	<i>-tu</i>	intransitives	object index
Shiwilu (Kawapanan)	<i>-tu</i> ¹¹	intransitives, transitives	object index
Shiwilu (Kawapanan)	<i>-i</i>	transitives	object index
Shiwilu (Kawapanan)	<i>-wa</i>	intransitives	object index
Shiwilu (Kawapanan)	<i>-nan</i>	transitives, intransitives	object index
Shawi (Kawapanan)	<i>ichi-</i>	transitives, intransitives	object index
Shawi (Kawapanan)	<i>-tē</i>	transitives, intransitives	object index
Arabela (Zaparoan)	<i>-t(i)a</i>	intransitives	zero
Iquito (Zaparoan)	<i>-nii</i>	intransitives	zero
Hup (Naduhup)	<i>-ʔúh</i>	transitives (intransitives)	object case
Kakua (Kakua-Nukak)	<i>-áʔbuhú</i>	transitives	object case
Yagua (Peba-Yaguan)	<i>-ta</i>	transitives, intransitives	zero

¹¹ There are two homophonous and diachronically connected markers *-tu* in Shiwilu. The second is classified as a valency modifier by (Valenzuela 2016), but this marker has, among its uses, applicative (see also Section 3.4).

3.4 The semantics of the applicative constructions in the sample

The most common semantic interpretation of the applicatives in the area is benefactive/recipient, which is also the most common semantic interpretation world-wide (Polinsky 2013), a further common interpretation is malefactive. Benefactive seems to be the only possible interpretation in most Tukanoan languages. An exception is West-Tukanoan Koreguaje, whose marker *-khaj* adds an argument role to the verb semantics that can be interpreted as beneficiary (31a) or maleficiary (31b).

- (31) Koreguaje (West Tukanoan; Cook and Criswell 1993: 72–73)

- a. *jĩĩ miĩi-re joʔo-k^ha-sa*
 I you-OBJ work-BEN-DES.SG
 ‘I will work for you.’
- b. *k^hani-sō-i-na hamu-ʔai-pi mio-ra’-ʔo-ri*
 sleep-INTS-SEQ.M.SG-DS armadillo-jaguar-SRC finger-DIM-CLF-DIM
āni-sō-k^hai-si-na-ⁱ-me jĩi-re
 eat-INTS-BEN-PFV-NMLZ.PL-VBLZ-PL 1SG-OBJ
 ‘While I was sleeping, the dogs ate my little finger (to my detriment).’

The situation as in Koreguaje, with both benefactive and malefactive as possible interpretations is common in the area. The applicative in Chicham languages, for instance, can have both readings, depending on the context, as can be seen in e.g. Examples (14) and (15) above, repeated here for convenience as (32) for benefactive, and (33) for malefactive.

- (32) Shiwiar (Chicham; Kohlberger 2020: 298)

- papá-r=ka hĩá=n naha-t-ru-á-mia-ji*
 father-1SG.POSS=TOP house=ACC make-APPL-1SG.OBJ-PFV-REM.PST-3.DECL
 ‘My father made me a house.’

- (33) Aguaruna (Chicham; Overall 2007: 306)

- amitfi mi-na atafu-na yu-hu-tu-a-ĩ*
 fox 1SG-ACC chicken-ACC eat-APPL-1SG.OBJ-HIAF-3:PFV
 ‘A fox ate my chicken.’

The Shiwilu applicative *-i*, in combination with *-tu*, yields a benefactive or malefactive interpretation:¹²

¹² These are considered separate morphemes because *-tu* also combines with other applicative morphemes.

(34) Shiwilu (Kawapanan; Valenzuela 2016: 536–537)

- a. *wila=wek=sha ipa' wichi'-i-tu-llun.*
 child=POSS.1SG=DIM already fall.asleep-APPL-VM-NFUT.3SG>1SG
 'My little grandson already fell asleep to my benefit.'
- b. *Idu chimin-i-tu-llun.*
 Eleuterio die-APPL-VM-NFUT.3SG>1SG
 'Eleuterio died to my detriment.'

The applicative marker *-lapi* has a default interpretation of a relinquitive (leaving behind), but can have benefactive or malefactive overtones. For some verbs, such as *lun*- 'speak', the only available interpretations of *-lapi* are malefactive or benefactive.

(35) Shiwilu (Kawapanan; Valenzuela 2016: 531)

- lun-lapi-llun.*
 speak-APPL-NFUT.3SG>1SG
 'S/he spoke for me (in my favor, instead of me).' / 'S/he accused me.'
 '*S/he spoke and left me behind.' / '*S/he spoke having left me behind.'

The imperative applicative in Kakua seems to have only a benefactive interpretation (28 above). A dative (benefactive/recipient) and/or malefactive interpretation is found for the only applicative marker in Hup. Compare (30) above with (36).

(36) Hup (Nadahup; Epps 2008: 501)

- hid-ăn hǝp tih nɔʔ-ʔũh-ũy*
 3PL-OBJ fish 3SG give-APPL-DYN
 'He's giving them fish (as a service to someone else, probably the owner of the fish).'

For Arawakan Yukuna, malefactive (and connected to that relinquitive) are the only possible interpretations.

(37) Yukuna (Arawakan; Lemus Serrano 2020: 76)

- ri=éjě kujnú anó'-ña-cha na=i'michá.*
 3SG.NF=toward cassava wet-APPL-PST 3PL=REM.PST
 'Then their cassava got wet on them (i.e. to their detriment).'

The applicative marker in Iquito can also possibly be connected to this group. Since there is no dedicated description of this applicative marker, the interpretation of its semantics must be based on example sentences, of which there are few. The semantic interpretation seems to hinge around the notion of benefactive/goal (see [26] above), but allows for some freedom of interpretation, as shown in (38), where the combination *carii* 'look' with *-nii* yields different (though relatable) interpretations.

(38) Iquito (Zaparoan; Lai 2009: 299, 301)

- a. *caniica pi-mayasiini carii-nii-rü?*
 who 1PL.INCL-play.INF look-APPL-MOM.PFV
 'Who will direct our game?'
 b. *carii-nii nuu!*
 look-APPL 3S
 'Take care of him!'

A second, smaller group of markers hinge around (sociative) comitative semantics. For Arabela, Rich (1975: 2) describes a suffix *-ta*, which marks a sociative causative (but termed applicative in Rich 1999), introducing an accompanying person or thing for the patient of a transitive or the S of an intransitive verb, with a range of interpretations. Rich (1999: 55–57) lists three types of interpretation, which he terms passive accompaniment (39a), temporary condition for the subject participant (39b), and contents of subject or object participant (39c).

(39) Arabela (Zaparoan; Rich 1999: 55–57)

- a. *cua morejaca tiurii-tia-ree-nijia.*
 1SG yuca trip-APPL-PFV-1SG
 'I tripped with my load (yuca).'
 b. *Najaaca cuso-ta-a-nijia.*
 flu be.sick-APPL-CNT-1SG
 'I am ill with the flu.'
 c. *Cana-qui-ti-jia canaa*
 who-EXCLM-INTER-EXCLM 1PL.EXCL
caashoque ti-ni-jio-ta-ree-jaj?
 bag fall-CAUS-VPL-APPL-PFV-EMPH
 'Who knocked over our bags (with content)?'

This is semantically rather close to some of the readings of *-ta* in Yagua:

(40) Yagua (Peba-Yaguan; Doris L. Payne 1985^a: 272)

- a. *sa-ya-ta jüta-nü juvqda*
 3SG-go-APPL DISC.PRT-3SG kill[noun]
 'He goes with his kill.'
 b. *sa-tiryóó-ta-rà*
 3SG-lie:down-APPL-INAN
 'He lies down with it (e.g. a book).'

Shawi has a sociative causative construction, marked with the prefix *ichi-*, which serves a similar function as Shiwilu *ek-*:

- (41) Shawi (Kawapanan; Rojas Berscia 2013: 92)
ka ichi-nansa-r-awe ina
 I SOC.CAUS-dance-ASSIST-1SG him
 'I make him dance (but I also participate in the dancing).'

- (42) Shiwilu (Kawapanan; Valenzuela 2016: 527)
Rubisha ek-lansa'-llun (kwa)
 Robertina SOC.CAUS-dance-NFUT.3SG>1SG 1SG
 'Robertina asked me to dance and we both danced.'

A more idiosyncratic interpretation of *ek-* in Shiwilu can be translated as 'wearing', the applied object being a piece of clothing associated with one of the participants of the action. This is reminiscent of the examples in Arabela (39) and Yagua (40) above.

- (43) Shiwilu (Kawapanan; Valenzuela 2016: 528)
 a. *Atushupi chimin-lli*
 Augusto die-NFUT.3SG
 'Augusto died.'
 b. *Atushupi ek-chimin-lli kutun=nen.*
 Augusto SOC.CAUS-die-NFUT.3SG>3SG clothes=POSS.3SG
 'Augusto died in his clothes (i.e., in the clothes that he is wearing).'

A further applicative marker of Shiwilu, *-pa*, which can be used to indicate a participant next to whom an action is performed, can also take on more comitative and assistive meanings, as shown in (44).

- (44) Shiwilu (Kawapanan; Valenzuela 2016: 533)
 a. *Malallina nerku'-lli nun=kekla.*
 Magdalena row-NFUT.3SG canoe=ABL
 'Magdalena rowed from the canoe.'
 b. *Malallina nerku'-pa'-llun.*
 Magdalena row-APPL-NFUT.3SG>1SG
 'Magdalena helped me row (i.e., we both rowed).'

Semantic extensions of Shiwilu *ek-* and Yagua *-ta* are closer to a dative-like interpretation, akin to the semantics of Iquito *-nii*.

- (45) Shiwilu (Kawapanan; Valenzuela 2016: 528)
ñiñi'wa=pen ek-pekla-llun
 dog=POSS.2SG SOC.CAUS-produce.noise-NFUT.3SG>1SG
 'Your dog barked at me.'

- (46) Yagua (Peba-Yaguan; Doris L. Payne 1985a: 278)

sa-júnúúy-ta-níí *dee-un*
 3SG-look-APPL-3SG DIM-CLF:ANIM:SG
 ‘She watches/takes care of the boy.’

The Yagua marker in addition can yield instrument interpretations, as illustrated by (27) above.

A third group that occurs in more than one family are locatives. Shiwilu has an applicative marker *-tu*, which promotes a locative argument to core argument status:

- (47) Shiwilu (Kawapanan; Valenzuela 2016: 534)

- a. *Peksek wichi’-lli*.
 peksa’=ek wichi’-lli
 bed=LOC sleep-NFUT.3SG
 ‘He slept in the bed.’
- b. *Peksa’ wichi’-tu-lli*.
 bed sleep-APPL-NFUT.3SG>3SG
 ‘He slept in the bed.’

A further applicative marker in Shiwilu, *-wa*, in combination with *-tu*, marks the goal of a movement:

- (48) Shiwilu (Kawapanan; Valenzuela 2016: 540)

napi’=ima ala’=sa’ shaya’ Kukama’-lun=ima
 long.ago=REP one=just man’s.older.sister Cocama-F=REP
Tandek=k ñi-apa-sik=ima
 Marañón.river=LOC exist-CNT-DUR.3SG=REP
pa’-wa-tu-lli ala’=sa’ wapur=ler
 go-APPL-VM-NFUT.3SG>3SG one=LIM boat=ERG
 ‘Long ago a boat came towards a woman, a Cocama woman, who was living on the (banks of the) Marañón (river).’

A locative interpretation is also possible in Chicham languages, although this particular instance of the applicative marker is best classified as a lookalike. In Shiwiar, with verbs of motion, the applicative marker can introduce a locative argument, as exemplified in (49).

- (49) Shiwiar (Chicham; Kohlberger 2020: 299)

ukú-r-ki-ár-mia-ji
 leave-APPL-PFV-PL-REM.PST-3.DECL
 ‘They left her there.’

The verb root *ukú* ‘leave’ in (49) is transitive; the applicative shifts the focus to a location. Kohlberger stresses that it is unclear that the applicative increases valency in these cases, since there is never an explicit NP referring to the location, and third person objects are not formally marked on the verb.

This is reminiscent of the situation in the Arawakan language Tariana. Strictly speaking, Tariana does not have an applicative construction, but certain uses of the causative *-ita* can be classified as applicative lookalikes. When applied to transitive verbs (except a small subset), the marker combination *-ita* indicates that a peripheral participant must be present in the clause (although it does not seem to be treated as a core argument morphosyntactically). The precise interpretation of this peripheral participant depends on the verb semantics, but one of the possible interpretations is a locative (50), other interpretations are dative (addressee/benefactive), instrument, or purpose.

(50) Tariana (Arawakan; Aikhenvald 2000: 166)

- a. *diwhida na-pisa na-pala-pidana*
 3SG.NF+head 3PL-cut 3PL-put-REM.PST.INF
 ‘They cut his head and put (it) somewhere.’
- b. *ita-whya hi-nuku pi-pale-ta*
 canoe-CLF DEM:AN-TOP.NON.A/S 2SG-put:CAUS-CAUS
 ‘Put the canoe here.’

In Example (50a), the verb stem *pala-* without the causative means ‘to get’ or ‘to put’; with the causative marker¹³ the stem means to put something in a particular location (50b).

Shiwilu has a number of further applicatives or further readings of the applicative markers discussed above. The first marker (*-tu*, homophonous with the locative applicative) to be discussed is not classified as an applicative marker by Valenzuela (2016), because it clearly has uses that are not applicative. Depending on the verb¹⁴ it attaches to, it may have valency-decreasing or -increasing effects. The latter can be interpreted as applicative constructions that add a (direct or indirect) object. Example (51a) shows the valency-increasing effect of *-tu*, adding an addressee to the verb *lamapu* ‘scream’, changing the interpretation to ‘scream at’. In (51b), the same marker decreases the valency of the transitive verb *apu-* ‘abandon’, to derive an intransitive interpretation ‘disappear, go away’, where the former direct object is expressed as an oblique.

¹³ The causative marker *i-ta* is bimorphemic, with the *-i* (here merged with the stem) representing the causation, and *-ta* an increased affectedness of the P participant (Aikhenvald 2000: 158–159)

¹⁴ The marker also attaches to adjectives or nouns to form verbs.

(51) Shiwilu (Kawapanan; Valenzuela 2016: 524–525)

- a. *nana shaya' sudinen lamapu'-tu-lli.*
 that man's.sister husband:POSS.3SG scream-VM-NFUT.3SG>3SG
 'The woman screamed at her husband.'
- b. *Iñika apu'-tu-lli pidek=ñiklan.*
 Inés abandon-VM-NFUT.3SG house=POSS.3SG:ABL
sudin apu'-lli.
 husband:POSS.3SG abandon-NFUT.3SG>3SG
 'Inés disappeared from her house. She abandoned her husband.'

Shawi has a cognate marker *-të* (pronounced /ti/ or possibly /tu/, with allomorph *-ta* in combination with progressive verb semantics). Hart (1988) describes three functions of the suffix *-të*: valency-increasing (52a–b), deriving a personal from an impersonal verb (52c), and valency-decreasing (52d). Example (52b) can be classified as an applicative use of *-të*.

(52) Shawi (Kawapanan; Hart 1988: 269)

- a. *amarin* 'He bathes.' vs. *amatërin* 'He bathes someone.'
- b. *a'parin* 'He sends it.' vs. *a'patërin* 'He sends it to someone.'
- c. *të'narin* 'It gets cold.' vs. *të'natërin* 'He gets cold.'
- d. *nohuirin* 'He is angry with someone.' vs. *nohuitërin* 'He is angry.'

Interestingly, Rojas Berscia (2013: 50) indicates that, for the Balsapuerto dialect he was studying, most of the examples mentioned by Hart (1988) could not be corroborated. Instead, he found that the suffixes of the same form were used as tense markers.

The relinquitive applicative marker *-lapi* in Shiwilu is also found in constructions that are interpreted as comparative (surpassing) or prioritive (beating someone to it), which are possibly semantic extensions of the relinquitive. There is a further applicative marker *-nan*, which marks applied objects in the presence of whom an action was performed, sometimes with malefactive overtones. The same marker can also be interpreted as referring to a participant who is spared, in contrast to other participants, who are affected by the action. Valenzuela (2016: 542) notes that this applicative interpretation is unique.

Summarizing, there are a number of recurring semantic roles assigned to the applied object in the area. The most common ones are benefactive and malefactive, with comitative-like interpretations and locations as two further recurring, but clearly less common groups.

4 The areality of applicative constructions in the northwest Amazon

After having reviewed the morphology, syntax, and semantics of the applicative constructions found in the NWA, we can return to the question to what extent the distributions found can be explained by making reference to contact.

A first point to be made here is that the area, in some ways, seems to be the opposite of an “applicative area”. Only about half of the languages in the sample under investigation in this paper have applicative constructions. In addition, of the languages that do have applicatives, the most common situation is that there is only one applicative marker, Shiwilu being the exception. The Quechuan and Arawakan languages of the area, moreover, mostly or entirely lack applicatives, unlike other languages belonging to the same family, but spoken in other areas. For Quechuan languages, as mentioned, this may be a contact effect (substrate, possibly from Barbacoan), for Arawakan this is less clear. Two Arawakan languages in the area do have applicative or applicative-like markers, Tariana and Yukuna.

In terms of their morphology, the applicative markers in the NWA are overwhelmingly suffixal, with a few exceptions (prefixes in Kawapaman); with respect to the specific forms, the most conspicuous commonalities are family-internal, in particular for Tukanoan and Chicham, suggesting established patterns prior to diversification. There are a few other similar forms, which may be discussed in the light of the idea that a marker *-ta* spread through the area (Crevels and Voort 2020). A few markers discussed above expressing applicative or applicative-like constructions have a form that can broadly be connected to the form [ta].

Table 5: Forms similar to [ta] in the sample.

form	language	meaning
<i>-tu</i>	Aguaruna	benefactive, malefactive, locative
<i>-tu</i>	Wampis	benefactive, malefactive, locative
<i>-tu</i>	Shiwiar	benefactive, malefactive, locative
<i>-tu</i>	Shiwilu	locative
<i>-(i)a</i>	Arabela	comitative
<i>-ta</i>	Yagua	comitative, instrument
<i>-ita</i>	Tariana	benefactive, malefactive, locative, instrument, purpose (lookalike)

At first sight, the form-meaning pairs in Table 5 look promising: there is certainly formal similarity, and this seems to be coupled to some degree of functional overlap as well. However, although there certainly may be contact-induced aspects to be discerned, the formal similarities seem to be mostly accidental. The Chicham form *-tu* is an allomorph

of *-hu* (Aguaruna) or *-ru* (Wampis, Shiwiar). This is the same allomorphy as the first person singular object, lexically determined by the same group of verbs. Although the diachrony of this allomorphy is unclear (Overall 2007: 322–324), it is obvious that there is a diachronic connection, which points to an internal development of the form *-tu*, at least since the time of diversification. Of course, it is possible that the allomorphy (an uncommon feature in Chicham languages) is contact-induced, caused by the borrowing of a form at a stage before the diversification of the Chicham languages, which, given the similarities between the Chicham languages, does not lie too far back in the past.

The locative applicative *-tu* in Shiwilu has a diachronic connection to the valency-adjusting suffix *-tu* (*-tē* in Shawi). This suffix can manipulate the valency of a verbal root, with either decreasing or increasing effects. The interpretation of the marker depends on the verb root it attaches to, and it is therefore difficult to ascribe any specific semantics to it. The presence of a cognate in Shawi suggests the presence of the marker in a stage before the split between Shawi and Shiwilu.

Given its form, it is enticing to regard the Tariana applicative in the light of the spread of *-ta* forms, discussed in Crevels and Voort (2020). It must be said, however, that the applicative reading is only one of the functions of *-ita*, and probably a secondary one, as its main function is causative. As a causative marker, forms related to *-ita* are found throughout the Arawakan family, and seems to be inherited from proto-Arawakan, see Aikhenvald 1999: 90). For the forms in the sample of this paper, see Table 6.

Table 6: Causative morphology in northwestern Arawakan languages.

Language	Causative morpheme	Source
Achagua	<i>-da</i>	Wilson and Levinsohn (1992)
Tariana	<i>-ita</i>	Aikhenvald (2003)
Piapoco	<i>-ida</i>	Klumpp (2019), Reinoso Galindo (2002)
Resígaro	<i>-tú</i>	Allin (1976)
Warekena	<i>-ta</i>	Aikhenvald (1998)
Yukuna	<i>-ta/-chi</i>	Lemus Serrano (2020)

That leaves us, as far as formal borrowing is concerned, with the case of Yagua and Arabela, which was discussed in Section 3.2, based on the observations made in Payne (1985b) and Wise (2002).

It is, however, possible that some of the language-internal developments were influenced by language contact, and that formal similarities may have helped these processes along. For instance, the development of a locative interpretation of the valency modifier in Shiwilu may have happened under the influence of the presence of a homophonic applicative suffix in the Chicham languages, and the extension of the causative in Tariana may have been influenced by the presence of similar sounding applicative markers in neighboring languages. Likewise, the extension of the Koreguaje applicative to include malefactive may have been contact-induced (with perhaps the Chicham lan-

guages as the most likely source). This is, however, hard to prove or disprove. We know that Tariana was influenced particularly by East Tukanoan languages, which have no applicative marker that is formally similar. A connection between Kawapaman and Chicham has been suggested (Valenzuela 2015) and therefore seems more promising.

The Kawapaman-Chicham connection also surfaces when looking at the syntactic patterns, where both languages have a system in which applicative arguments have prioritized access to the object indexing slot on the verb over direct objects. The other shared syntactic pattern worth mentioning here is the fact that in both Hup (and possibly Kakua) and Tukanoan languages, the applicative argument is in most cases not subject to differential argument marking, unlike direct objects. Given the known shared history between Hup and Eastern Tukanoan languages (Epps 2006) both the system of differential object marking, and the exception to this of applied objects, may be contact-induced influence of Tukanoan on Hup.

The Yagua-Arabela connection is reinforced by semantics, both languages having readings that include the extension of the effects of the event on objects in the possession of, or physically associated with the S or P participant. This may be extended to some of the uses of Shiwilu *ek-*, which can promote clothing worn by the S or P participant. A further interesting venue to look into on the basis of semantic correspondences (but outside the scope of this paper) is historical connections between Shiwilu and the languages of central and southern Peru. The Arawakan language Nanti, for instance, has a presential (53a) and relinquitive (53b) applicative, semantically similar to the corresponding Shiwilu applicatives:

(53) Nanti (Arawakan; Michael 2008: 286–287)

- a. *Birari tog-imo-ak-i=npi*
 Birari fell.tree-APPL-PFV-REAL=2OBJ
 ‘Birari felled (it) in your presence.’
- b. *i=shig-apitsa-ak-i=ri*
 3MS=run-APPL-PFV-REAL=3M.OBJ
 ‘He ran away from him.’

In sum, there seems to be little (and at best tentative) evidence for contact-induced diffusion of forms in the applicative systems of the NWA languages of the sample beyond the already recognized connection between Yagua and Arabela *-ta*, which is also supported by overlapping semantics. There are some indications of contact-induced influence concerning Kawapaman and Chicham languages, as well as between Hup and Tukanoan languages, but these—with the possible exception of Kawapaman and Chicham—involve semantics or syntax rather than form. An interesting avenue for further research is the connection between Shiwilu and Nanti (as well as perhaps further languages of central and southern Peru).

5 Conclusions

The use of applicatives in the NWA is limited. Many languages of the area have no applicative construction, even if related languages spoken elsewhere do. The languages that do have an applicative construction, mostly have only one. The exceptions are Kawapaman languages Shawi, and in particular Shiwilu, which have a richer inventory of applicative constructions.

Beyond this, a few generalizations can be made about applicatives in the area on the basis of the overview given above:

- Almost all applicative markers are prosodically dependent, postposed markers, mostly suffixes (exceptions are prefixed markers in the Kawapaman languages which occupy a middle ground between causatives and applicatives).
- There is some overlap in form, but on closer inspection, these overlaps are largely coincidental (the main exception seems to be the applicative marker *-ta* in Yagua and Arabela).
- In terms of morphosyntactic marking of the applied object, languages tend to follow the internal logic of marking direct or indirect objects of non-derived verbs. Two patterns are worth highlighting:
 - In Hup and the Tukanoan languages, applied objects are generally not subject to differential case marking, unlike direct objects (but like indirect objects).
 - In Chicham and Kawapaman languages, applied objects are given priority access to the object indexing slot on the verb over direct objects.
- In terms of semantics, affective (benefactive-malefactive) is clearly the most common interpretation of the role of the applicative object, followed by a group of interpretations that can be loosely connected to the notion of comitativity, and finally locations.

Abbreviations

ABL	ablative
ACC	accusative
AN	animate
ANPH	anaphor
APPL	applicative
ASSIST	assistance
ATT	attenuative
BEN	benefactive
CAUS	causative
CLF	classifier
CNT	continuative
COLL	collective
COM	comitative

COP	copula
DECL	declarative
DEF	definite
DEM	demonstrative
DES	desiderative
DIM	diminutive
DISC	discourse
DS	different subject
DUR	durative
DYN	dynamic
EMPH	emphasis
ERG	ergative
EXCL	exclusive
EXCLM	exclamative
F	feminine
FUT	future
HIAF	high affectedness
IMP	imperative
INAN	inanimate
INCL	inclusive
IND	indicative
INF	inference
INSTR	instrument
INT	intentional
INTER	interrogative
INTS	intensifier
IPFV	imperfective
LIM	limitative
LOC	locative
M	masculine
MOM	momentary
MOT	motion
NEG	negation
NF	non-feminine
NFUT	non-future
NMLZ	nominalizer
NON.A/S	non-subject (A/S) argument
OBJ	object
PFV	perfective
PL	plural
POSS	possessive
PRED	predicative
PRES	present
PRO	pronominal
PRT	particle
PST	past
REAL	realis
REC	recent
REL	relativizer

REM	remote
REP	reportative
SEQ	sequential
SG	singular
SOC	sociative
SRC	source (of action)
SS	same subject
SUB	subordinator
TOP	topic
VAL	valenciator
VLZ	verbalizer
VIS	visual
VM	valency modifier
VPL	verbal plural
x>y	x acts on y

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William A. Foley

12 Applicatives in Papuan languages

Abstract: The term Papuan languages is a purely negative characterization, covering the languages of more than thirty language families plus over a dozen isolates, spoken on and around the island of New Guinea. In spite of their enormous genetic and structural diversity, Papuan languages can on the whole be categorized as head marking and, commensurate with that classification, as possessing applicative constructions. The number of applicative constructions in Papuan languages ranges from one (in typical Trans New Guinea languages of the central highlands like Fore) to thirteen (in the Macro-Sko language Barupu), but in all cases identified they historically have arisen from reanalysis of verb roots in verb compounds or serial verb constructions. The crosslinguistically most widespread applicative construction marks beneficiary participants, but languages with richer inventories go well beyond that to indicate a very wide range of erstwhile peripheral semantic roles like locations, goals, and comitatives.

1 The nature of Papuan languages

Unlike most other chapters in this volume which treat single languages or language families, this chapter necessarily has a very large purview, essentially a geographical area centered around the island of New Guinea and adjacent smaller islands, within which are spoken some 700–800 languages belonging to between 30 and 60 distinct languages families, excluding the languages of the Austronesian family in this region, which number a few hundred themselves. Papuan languages are defined purely negatively, that is, they are the languages of the New Guinea region which do not belong to the Austronesian language family, a fact made clear in their alternative name, Non-Austronesian languages: the name does not denote a coherent genetic grouping. Hence Papuan language is a cover term to cover all the many distinct language families of this region which are not Austronesian, and the exact number of these is still rather undetermined (see Palmer 2018), but clearly cannot be less than thirty, and in addition to these there are some two dozen linguistic isolates.

Papuan languages are not only highly genetically diverse, they are also very structurally diverse. They range from analytical isolating languages similar to those of Southeast Asia, like Kimaghama (Kolopom sub-family, Trans New Guinea family; Drabbe 1949) to mildly inflecting languages like Watam (Lower Ramu sub-family, Lower Sepik-Ramu family) or Moskona (East Bird's Head family; Gravelle 2011) to the richly inflecting often fusional languages of the many sub-families of the vast Trans New Guinea family like Coastal Marind (Anim sub-family; Olsson 2021) and finally to the agglutinative incorporating polysynthetic languages of the Sepik region like Yimas (Lower

Sepik sub-family, Lower Sepik-Ramu family). Syntactically most Papuan languages are of an OV left branching typology with postpositions, with the morphologically richer languages commonly allowing flexibility in clausal constituent order, but not all are; in particular the languages of the Torricelli and West and East Bird's Head families are VO right branching in structure, with prepositions instead of postpositions. For the latter two families this is probably an innovation due to influence from neighboring Austronesian languages, which share this typology, but this is unlikely in the case of Torricelli family languages. The morphologically richer languages are also head marking languages (Nichols 1986), often extremely so like Coastal Marind, Yimas and Central Asmat (Asmat-Kamoro sub-family, Trans New Guinea family), expressing all grammatical relations simply by bound pronominal affixes with no nominal case marking, as in this Yimas example (Roman numerals indicate noun classes throughout this chapter):

(1) Yimas

ŋaykum makaw wa-mpu-ŋa-r-akn panmal
 woman.II.PL fish.sp.X.SG X.SG.NOM-3PL.ERG-give-PFV-3SG.DAT man.I.SG
 'the women gave *makaw* to the man'

though some of the Trans New Guinea languages are double marking, having both bound pronominal affixes and some case marking for nominal arguments, like Fore (Gorokan sub-family, Trans New Guinea family):

(2) Fore (Scott 1978)

mási wá-má a-ka-i-e
 boy man-NOM 3SG.OBJ-see-3SG.SUBJ-DECL
 'the man sees the boy'

Dependent marking languages are largely restricted to more morphologically depauperate languages such as those of the Lower Ramu, Lakes Plain or East Cenderawasih Bay families. Some Sepik family languages like Abau (Locke 2011) are particularly interesting and typologically rare in combining a polysynthetic incorporating typological profile with dependent marking.

2 Verbal sources of applicative morphemes in Papuan languages

Applicative constructions in which an erstwhile oblique argument has been promoted to a core object grammatical relation and hence indicated as such by an applicative morpheme in the verb are mostly restricted in Papuan languages to the morphologically richer, head marking languages in which grammatical relations are indicated by bound pronom-

inal affixes. Languages which lack these constructions typically perform similar functions through the use of serial verb constructions, and indeed there is clear evidence that applicative constructions in Papuan languages in many cases have evolved from re-analysis of prior serial verb constructions and in some cases synchronically alternate with them. Consider these examples from Teiwa (Alor-Pantar sub-family, Trans New Guinea family), in which various serial verb constructions perform the functions of applicative morphemes of verbal origin in other Papuan languages to be discussed in detail below:

(3) Teiwa (Klamer 2010)

- a. *iman gon quan **pin** te*
3PL gong drum hold walk
'they walk away with the gong and drum'
- b. *ped **mat** ma man taxar*
machete take come grass cut
'cut the grass with a machete'
- c. *Sangubal **ma** bir-an daa*
PN come run-R go_up
'running up from Sangubal'
- d. *in nuk yivar ga-taax **wan** hor*
thing one dog 3SG-throat be_at hang
'something hangs around the dog's throat'
- e. *uy ga'an u sen **ma** n-oma' g-an*
person 3SG DIST money come 1SG-father 3SG-give
'that person gave money to my father'

Note the roles of the arguments of the bolded verbs in series in the above examples: comitative in (a) with *pin* 'hold', instrument in (b) with *mat* 'take', source in (c) with *ma* 'come', location in (d) with *wan* 'be at, exist', and exchanged theme in (e) again with *ma* 'come'. In a morphologically rich Papuan language like Barupu (Piore River sub-family, Macro-Sko family) some of these semantic roles would be expressed by applicative affixes on verbs, albeit ones quite transparently derived from verbs grammaticalized as affixes from prior serial verb constructions:

(4) Barupu (Corris 2005)

- a. -ĕ FROM
k-en-úte-n-ĕ-mú
R-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{FROM}-2SG.F.OBJ
'I walked away from you (SG)'
- b. -ô CAUSE
k-en-ké<n>í-n-ô-wa
R-1SG.F.SUBJ-sit<1SG.SUBJ>-1SG.SUBJ-APPL_{CAUSE}-3SG.M.OBJ
'I'm staying behind because of him'

- c. -o FOR
k-en-úte-n-o-mu
 R-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{FOR}-2SG.F.OBJ
 'I walked for you (SG)'
- d. -î WITH
n-en-úte-n-î-mu
 IRR-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{WITH}-2SG.F.OBJ
 'I will walk to be with you (SG)'

Barupu verbs are always inflected for the person, number and gender of their subjects by prefixes (and occasionally by infixes), and, if transitive, also for the person, number and gender of their objects by suffixes. Both verb roots in the examples of (4), *úte*- and *kéi*- 'sit' are intransitive, and as such occur with subject marking *en*- 1SG.F.SUBJ, but they also take direct object suffixes here, *-mu* 2SG.F.OBJ or *-wa* 3SG.M.OBJ, because they have been transitivized by applicative suffixes. But note that each of the applicative suffixes also takes subject marking *n*- 1SG.SUBJ, agreeing with the subject marking of the verb root. This is because each of these originally goes back to a separate verb with its own verbal inflection in a serial verb construction which has now been reanalyzed as a bound affix functioning as an applicative morpheme, but one which still bears its older inflectional patterns. Only *-o* 'to, for' is synchronically a verb root in Barupu, specifically the verb root for 'give'; the others now only function as bound applicative affixes with no link to current verb roots. As we shall see in what follows, re-analysis of verb roots in verb compounds or serial verb constructions is a very common diachronic source for applicative morphemes in Papuan languages, often transparently so in that the form still functions as a verb root elsewhere in the language.

But it is not universally the case in Papuan languages that applicative morphemes arise from re-analyzed serial verb constructions; it seems restricted to those with an OV left branching typological profile. The minority of Papuan languages which have a VO right branching profile sometimes grammaticalize applicative morphemes by incorporating a preposition. Consider the case of Mountain Arapesh (Arapeshan sub-family, Torricelli family) which has a preposition *umu*:

- (5) Mountain Arapesh (Conrad and Wogiga 1991)
- a. *u-a-salik* *stoakipa* *umu* *mabeguh*
 1SG.SUBJ-R-ask clerk PREP marbles
 'I asked the store clerk for marbles'
- b. *h-a-dúk-ech* *umu* *katres*
 3PL.M.SUBJ-R-kill-3PL.OBJ PREP bullet
 'they (PL) killed them with bullets'

There is a general applicative suffix in Mountain Arapesh which is clearly an incorporated and phonologically reduced form of this preposition):

(6) Mountain Arapesh (Conrad and Wogiga 1991)

- a. *m-u-bani-m-ech* *bi-ech* *yawihās*
 1PL.SUBJ-IRR-plant-APPL-3PL.OBJ two-3PL garden.PL
 ‘we will plant two gardens for them (PL)’
- b. *i-tal-um-ona-li* *yeguh*
 1SG.SUBJ-IRR-buy-APPL-3.SG.M.OBJ-TOWARD fish
 ‘I will buy the fish for him and bring it’
- c. *ch-a-na-mu* *bulguh*
 3PL.SUBJ-R-go-APPL pigs.PL
 ‘they (PL) went for pigs’
- d. *yék* *i-na-m-enyú*
 1SG 1SG.SUBJ-IRR-go-APPL-2SG.OBJ
 ‘I will go with you (SG)’ or ‘I will go for you (SG)’
- e. *élgei-no-mu* *nobat*
 fear-3SG.M.OBJ-APPL dog
 ‘he is afraid of the dog’
- f. *i-chu-sah-um-ona-li*
 1SG.SUBJ-IRR-VIII.PL.OBJ-carry-APPL-3SG.M.OBJ-TOWARD
 ‘I will carry the things on my shoulder for him and come’
- g. *ch-a-núk-as-um-ech-i*
 3PL.SUBJ-R-pull-IX.PL.OBJ-APPL-3PL.OBJ-TOWARD
 ‘they (PL) pulled them (slit drums) for them (PL) toward (speaker)’

Note that the initial and final vowels of the incorporated preposition *umu* delete following (6a, c, d, e) and preceding (6a, b, d, f, g) a vowel respectively. Note also, as (6f, g) demonstrate, that the introduced applied participant does not usurp the function of the original direct object of the verb, which can still be marked by a bound pronominal affix (prefix [6f] or suffix [6g] depending on verb class). The applicative suffix along with any bound pronominal suffix for the introduced applied participant then simply follows.

3 Benefactive marking in Papuan languages

By far the most widespread applicative constructions in Papuan languages are those which express the beneficiaries of an action. This usually involves use of the verb roots meaning ‘give’ in a verb compounding or serial verb construction, though in some cases

the etymological source of the benefactive applicative is no longer recoverable. Consider these examples from Central Asmat and Imonda:

- (7) a. Central Asmat (Voorhoeve 1965)
enám nes jimin akat jik-tam-por-m-í-n
 fish flesh sago.stick good bind-APPL_{BEN}-try-PRES-1SG.SUBJ-2.OBJ
 ‘I make tasty sticks of sago and fish for you’
- b. Imonda (Seiler 1985)
ka-m fi-n-fin
 1-DAT do.PL-APPL_{BEN}-NSG-PFV
 ‘they did it for us’

The verb root for ‘give’ in Central Asmat is *tetam-*, clearly related to the benefactive applicative suffix and diachronically derived from it (the Proto-Asmat-Kamoro verb root for ‘give’ is **tam-* [Usher and Suter 2020]), but no longer transparently equivalent to it, while the root for ‘give’ in Imonda is *ai-*, with no relationship whatsoever to the benefactive applicative suffix.

In the vast Trans New Guinea family across numerous sub-families, benefactive applicative constructions are formed by compounding with the main verb an auxiliary verb, usually etymologically ‘give’ or ‘put’, though not necessarily (Telefol, example [8e]), which commonly takes person and number inflection as direct object for the beneficiary. Hence these like most Papuan languages, are secundative marking languages for ditransitive verbs in Dryer’s (1986) typology. Often, this is the only way to express a beneficiary. For some languages there is no basic construction in which the beneficiary can be realized as an oblique and the verb lacks the benefactive marker, while for others like Telefol and Hua there are basic construction alternatives (see Hua examples in [18]). Consider these examples drawn from a number of sub-families:

- (8) a. Fore (Scott 1978)
pu-na-?ta-i-e
 do-1SG.OBJ-APPL_{BEN}/put-3SG.SUBJ-DECL
 ‘he did it for me’

The benefactive suffix and agreement is obligatory in Fore, though it does allow an overt noun phrase functioning as the beneficiary to be case marked as an oblique with the allative case suffix *-ti*:

- (8) b. Fore (Scott 1978)
nae-ti mae-wae-na-?ta-i-e
 1SG-ALL get-all-1SG.OBJ-APPL_{BEN}/put-3SG.SUBJ-DECL
 ‘he gets it all for me’

- c. Tairora (Vincent 1973)
rumpa-ti-mi-te-ro
 tie-1SG.OBJ-APPL_{BEN}/give-PFV-3SG.SUBJ
 'he tied it for me'
- d. Amele (Roberts 1987)
uqa ahul gel-i-te-i-a
 3SG coconut scrape-APPL_{BEN}/give-1SG.OBJ-3SG.SUBJ-NR.PAST
 'she scraped a coconut for me'
- e. Telefol (Healey 1965)
am dine-ʔk-ee-m-antém-ib
 house build-2SG.OBJ-APPL_{BEN}-DUR-FUT-3PL.SUBJ
 'they will build a house for you (SG)'
- f. Lower Grand Valley Dani (Bromley 1981)
wam pa-n-et-h-e
 pig cut-1SG.OBJ-APPL_{BEN}/give-R-3SG.SUBJ
 'he selected a pig for me'
- g. Lower Grand Valley Dani (Bromley 1981)
hakki pa-n-akeik-h-e
 banana cut-1SG.OBJ-APPL_{BEN}/put-R-3SG.SUBJ
 'he cut (and put aside) some bananas for me'

Note that the beneficiary is marked for person and number by prefixes to the benefactive applicative suffix in all the languages except Amele. These are the bound pronominal markers for direct objects, which would occur as prefixes to normal transitive verbs, Fore *na-ka-i-e* 1SG.OBJ-see-3SG.SUBJ-DECL 'he sees me' (Scott 1978), but here are prefixed to the benefactive suffix instead, again demonstrating its erstwhile status as a verb. In Amele, direct object markers are suffixed for simple transitive verbs, *jab-ade-i-a* chase-3PL.OBJ-3SG.SUBJ-PAST 'he chased them', as is the benefactive agreement marker in (8d), so the same pattern still holds, but here via suffixation. Only in the Telefol example (8e) is the benefactive affix not identical to a synchronic verb root meaning 'give' or 'put', though the verbal structure is identical to that of Fore, Tairora and Lower Grand Valley Dani and almost certainly goes back to Proto-Trans New Guinea. Interestingly, in Lower Grand Valley Dani, there are two benefactive suffixes, each equivalent to a different verb root in the language, 'give' (8f) versus 'put' (8g), with a corresponding difference in meaning as captured in the translations of (8e, f): the benefactive with 'put' denotes that objects are deposited for the beneficiary who will then claim them, but this is not entailed for benefactives with 'give'.

Multiple benefactive affixes similar to those of Lower Grand Valley Dani are not uncommon in Papuan languages. Consider these examples from Alambalak (Sepik Hill sub-family, Sepik family) and Yimas (Lower Sepik sub-family, Lower Sepik-Ramu family):

(9) Alamblak (Bruce 1984)

- a. *kun-t hingna-nho-më-m-r*
 house-F work-APPL_{BEN}-REM.PAST-3PL.SUBJ-3SG.M.OBJ
 ‘they (PL) helped him build a house’
- b. *këfra-t tu-hay-më-r-r*
 spear-F throw-APPL_{BEN}/give-REM.PAST-3SG.M.SUBJ-3SG.M.SUBJ
 ‘he threw a spear (to him) for his benefit or to his detriment’

The second benefactive marker, the serial verb construction with *hay*- ‘give’ in (9b) is labeled by Bruce as the indirect benefactive and simply means “something good happens to the actor or he does something which has a good or bad effect on the beneficiary” (Bruce 1984:159). But the form in (9a) with *-nho*, called by Bruce the “direct benefactive”, is much more restricted: 1. the event and the benefactive effect must happen at the same time and in the same place; 2. the same event is experienced by both the benefactor and the beneficiary; 3. the benefactor acts intentionally; and 4. the effect can only be benefactive, never malefactive. None of these conditions needs to hold for the serial verb benefactive construction with *-hay* ‘give’. Now consider these examples from Yimas:

(10) Yimas (Foley 1991)

- a. *Mitchell kat ya-ka-taŋ-wayk-r-akn*
 PN card.V.PL V.PL.NOM-1SG.ERG-APPL-buy-PFV-3SG.DAT
 ‘I bought cards for Mitchell’
- b. *wampunŋ k-mpu-kra-taŋ-mntk-ntut*
 sago.flour.VI.SG VI.SG.NOM-3PL.ERG-1PL.DAT-APPL-finish-REM.PAST
 ‘they (PL) used up the sago flour on us (PL)’
- c. *awt ŋa-kra-yawra-mpi-waraca-ŋa-n*
 fire IMP-1PL.DAT-gather-SEQ-return-APPLBEN/give-IMP
 ‘bring back fire for us (PL)’

The simple benefactive applicative prefix *taŋ*- in (10a, b), also used as a comitative and external possessor applicative (see Section 4.2), can have either a benefactive (10a) or malefactive (10b) meaning, but crucial to its usage like Alamblak *-nho* BEN is the requirement that the actor and the beneficiary or harmed participant be physically present together during the event. The use of *ŋa*- ‘give’ in (10c) has no such requirement and in fact typically denotes the converse. This is brought into sharp relief in the following two examples:

(11) Yimas (Foley 1991)

- a. *narm p-ka-taŋ-warapak-r-akn*
 skin.VII.SG VII.SG.NOM-1SG.ERG-APPL-cut-PFV-3SG.DAT
 ‘I cut his skin for him’ (as in a male initiation)

- b. *narm* *p-ka-kan-ŋa-r-akn*
 skin.VIII.SG VII.SG.NOM-1SG.ERG-pierce-APPL_{BEN}/give-PFV-3SG.DAT
 'I pierce the skin for him' (skin of some other creature, likely an animal)

(11a) with *taŋ-* expresses physical and temporal proximity between the actor and the beneficiary during the act of skin cutting. It is the skin of the beneficiary which is being cut as part of a formal ritual of male initiations. Example (9b) with *ŋa-* 'give' does not require the beneficiary to be present at the time of the piercing, merely that he benefit from the act; hence the entailment that the skin being pierced must belong to some other being, probably an animal.

Mian (Ok sub-family, Trans New Guinea family) has a further fascinating twist on this theme of two benefactive applicative affixes, but here the split is determined by aspect. Rather like Slavic languages, Ok languages typically have a division of many of their verb stems according to aspect, imperfective versus perfective, and Mian is typical:

- (12) Mian (Fedden 2011)
- | | | |
|---------------|--------------|-------------|
| PFV | IPFV | |
| <i>fa-</i> | <i>faka-</i> | 'make fire' |
| <i>têm-</i> | <i>temê-</i> | 'see' |
| <i>ngele-</i> | <i>ngen-</i> | 'beg' |
| <i>ge-</i> | <i>ga-</i> | 'say' |

The verb 'give' exhibits suppletion for aspect:

- (13) Mian (Fedden 2011)
- a. *nē naka=e éil=o*
 1SG man=M.SG pig=F.SG
om-ub'-a-Ø-i-bio=be
 3SG.F.OBJ-give.PFV-3SG.M.DAT-R-1SG.SUBJ-PAST=DECL
 'I gave the sow to the man'
- b. *ī blatik=o*
 3PL.AN plastic_bag=N.PL
do-ka-ye-bina-b-io=be
 3PL.OBJ-give.IPFV-PL.AN.DAT-HAB-IPFV-2/3.PL.AN.SUBJ=DECL
 'they usually give a few (vomit) bags to us'

Interestingly the verb stem for 'give' in the imperfective is clearly the homophonous transitive stem *ka-* meaning 'put'. So, what we find in Mian is a recapitulation of the contrast in Lower Grand Valley Dani (8f, g), but here semantically bleached and determined by an aspectual contrast. Like other Trans New Guinea languages as exemplified in (8), Mian forms benefactive applicative constructions by compounding 'give' with the

main verb in the perfective, but not in the imperfective, which simply uses a benefactive applicative suffix cognate with that in the Telefol example of (8e), hence preserving the aspectual contrast:

(14) Mian (Fedden 2011)

- a. *as=e* *fe-ˈbʰ-o-n-e=be*
 fire=M.SG make_fire.PFV-APPL_{BEN}/give.PFV-3SG.F.DAT-R-3SG.M.SUBJ=DECL
 ‘he made a fire for her’
- b. *imen=o* *fu-k-e-be-i=be*
 taro=N.PL cook-2SG.DAT-APPL-IPFV-1SG.SUBJ=DECL
 ‘I’m cooking taro for you (SG)’

As seen with examples from Alamblak and Yimas, the benefactive suffix is often extended to cover a range of related roles like maleficiary, recipient, etc.; Amele exemplifies well these extended uses of the benefactive affix:

(15) Amele (Roberts 1987)

- a. maleficiary
age ege na mala j-i-g-eig-a
 3PL 1PL POSS chicken eat-APPL/give-1PL.OBJ-3PL.SUBJ-NR.PAST
 ‘they ate our chicken on us’
- b. recipient
ija cabi ihac-i-h-ig-en
 1SG work show-APPL/give-2SG.OBJ-1SG.SUBJ-FUT
 ‘I will show the work to you (SG)’
- c. allative
h-u-t-ag-a
 come-APPL/give-1SG.OBJ-2SG.SUBJ-IMP
 ‘come to me’
- d. ablative
uqa sigin ebe-ni na dec hu-i-te-i-a
 3SG knife hand-SG.POSS of from grab-APPL/give-1SG.OBJ-3SG.SUBJ-NR.PAST
 ‘he grabbed the knife out of my hand’

Interestingly, like the Fore example (8b), the ablative participant is marked as an oblique phrase with the postposition *dec* ‘from’, yet an applicative construction is employed here nonetheless. Further, the meaning of ‘give’ as the source of the applicative suffix is semantically bleached here, as the action denoted is one of removal, a fact indicating complete grammaticalization of ‘give’ as an applicative in Amele.

As mentioned above, the applicative construction is commonly the obligatory construction in the Papuan languages to express beneficiaries, there being no basic construction alternative in which beneficiaries can be expressed solely as obliques. But

there are languages which do have such alternatives. Consider Urim (Urim-Kombio sub-family, Torricelli family) and Hua (Gorokan sub-family, Trans New Guinea family). Urim has a single applicative suffix *-(e)n* that covers a range of meanings like beneficiary, recipient, and cause, but the applicative construction always alternates with a basic construction in which the erstwhile applied object is realized as an oblique noun phrase headed by a preposition:

(16) Urim (Wood 2012)

- a. *men kark ekng tu tungkoren*
 1PL afraid PREP 3PL white
 'we (PL) were afraid of the white people'
- b. *kupm ti pike kark-en tungkoren yat*
 1SG here before afraid-APPL white also
 'I too was afraid of the white people before'

(17) Urim (Wood 2012)

- a. *mentekng kor kha ekng kitn*
 1DL seek grasshopper PREP 2SG
 'we (DL) seek grasshoppers for you (SG)'
- b. *mentekng kor-n=teitn kha*
 1DL seek-APPL=2SG.OBJ grasshopper
 'we (DL) seek grasshoppers for you (SG)'

The examples in (16) involve an intransitive verb *kark* 'be afraid'. The cause of that fear can be realized either as an oblique constituent marked with the preposition *ekng* (16a) or as the direct object of the verb immediately following the verb without the preposition and with the verb suffixed with the applicative suffix *-n* (16b). In the examples of (17) we have the transitive verb *kor* 'seek'. A beneficiary again can be realized as an oblique constituent (17a) or as the direct object of a verb suffixed with the applicative marker (17b); pronominal direct objects are realized as enclitics to the verb, here *=(t) eitn* 2SG.OBJ.

Hua, although in the same Gorokan sub-family as Fore in (8a, b), behaves like Urim in exhibiting an alternation between a basic construction in which a beneficiary is realized as a case marked oblique constituent and an applicative construction where it functions as the direct object:

(18) Hua (Haiman 1980)

- a. *dgai-su? zu ki-e*
 1SG-BEN house build.3SG.SUBJ-DECL
 'he built a house for me'

- b. *zu ki-na d-t-e*
 house build-3SG 1SG.OBJ-APPL_{BEN}/put.3SG-DECL
 'he built a house for me'

ki-na build-3SG in (18b) is a same subject dependent form of the verb with third person singular anticipatory subject marking. Example (18b) is a biclausal chaining construction, so less fusional than the single word structure found in Fore.

Yimas is particularly interesting in this regard. As a strongly head marking polysynthetic language, all core grammatical relations of a verb are indicated by pronominal affixes on the verb; there is no case marking on core argument nominals. When a beneficiary occurs with either an intransitive or transitive verb, it must be expressed with either of the applicative affixes illustrated in (10) and (11) above. However, ditransitive verbs present a problem: all argument positions are saturated, as Yimas does not permit verbs to have more than three core arguments. Hence when a beneficiary is added to a clause with a ditransitive verb, applicative constructions like those of (10) and (11) are prohibited and instead the benefactive is expressed with the postposition *nampan* 'toward':

- (19) Yimas
anti i-ka-pul-c-akn mpu-nampan
 ground.VIII.SG VIII.NOM-1SG.ERG-rub-PFV-3SG.DAT 3PL-toward
 'I rubbed dirt on him for them (PL)'

4 Papuan languages with multiple applicative constructions

A number of Papuan languages have multiple applicative constructions; I present three brief case studies here.

4.1 Coastal Marind (Anim sub-family, Trans New Guinea family; Olsson 2021)

Coastal Marind has a rich system of applicative constructions, but an unusual fact about it is that, unlike the languages discussed in Section 3, it does not use an applicative construction to express benefaction. It uses the same basic ditransitive construction for beneficiaries (and maleficiaries) as it does for recipients, namely a set of bound dative pronominals:

(20) Coastal Marind (Olsson 2021)

- a. recipient
surat mak-o-ikalen Simon
 letter FUT.1.A-3SG.DAT-send:III.U PN
 'I'm going to send a letter to Simon'
- b. beneficiary
mesiwag mak-o-kahos-e
 old.woman FUT.1.A-3SG.DAT-chew_betel-IPFV
 'I will chew betelnut for grandma' (she has no teeth)
- c. maleficiary
nggat tamuy mak-a-na-yi
 dog food NAFUT-3SG.A-1.DAT-eat
 'the dog might eat the food on me'

Coastal Marind does have four distinct applicative constructions: 1. a comitative-instrumental marked by *k-* ~ *ka-*; 2. an accompaniment marked by *e-*, expressing a co-participant in a motion event, brought along or being chased by the actor; 3. an allative 'toward' indicated by *ind-*; and 4. a separative 'away from', denoted by *is-*. Examples follow:

(21) Coastal Marind (Olsson 2021)

- a. comitative
kak Wobi da menda-b-Ø-ka-man
 aunt PN sago PFV-A-3SG.A-APPL_{COM}-come
 'Aunt Wobi already brought sago'
- b. instrumental
alib Ø-no-d-ka-w-as
 arrow_type NVO-1.A-DUR-APPL_{INSTR}-3SG.U-shoot
 'I was shooting with *alib* arrows'
- c. accompaniment
mayay anem Poce Ø-Ø-e-umuh
 first man PN NVO-3SG.A-APPL_{ACCOMP}-go:3SG.U
 'at first it was that man Poce who brought him'
- d. allative
yap m-a-n-ind-a-y-lolaw-em
 night OVO-3SG.A-1.DAT-APPL_{ALL}-1.DAT-1PL-crawl:3SG.U-TOWARD
 'at night he came sneaking toward us'
- e. separative
eham m-Ø-is-ihon
 husband:3SG OVO-3SG.A-APPL_{SEP}-run:3SG.U
 'she ran away from her husband'

4.2 Yimas (Lower Sepik sub-family, Lower Sepik-Ramu family; Foley 1991, 1997)

Yimas has six contrasting applicative constructions, two of which, *taŋ-* and *ŋa-*, were illustrated in (10) and (11) above. There I illustrated the benefactive applicative use of the prefix *taŋ-*. However, this is not its only usage; rather it commonly functions as an applicative for comitative participants. When marking beneficiaries, applicative constructions with *taŋ-* are obligatory, there being no alternative basic construction with the beneficiary as an oblique phrase, except in the situation of a ditransitive verb with argument positions already saturated, as mentioned in Section 3. But with comitative participants, there is an alternative between a basic construction with an oblique phrase and an applicative with *taŋ-*:

(22) Yimas

- a. *ama kantk na-mpu-tar-kwalca-t*
1SG with 3SG.NOM-3PL.ERG-CAUS-rise-PFV
'they (PL) woke him up along with me'
- b. *na-mpu-ŋa-taŋ-tar-kwalca-t*
3SG.NOM-3PL.ERG-1SG.DAT-APPL_{COM}-CAUS-rise-PFV
'they (PL) woke him up along with me'

Both constructions are possible, though (22b) is definitely preferred with pronominal comitative participants. Possession is also indicated with the comitative postposition *kantk* 'with', though in this usage it is suffixed to mark the number of the possessor. Again, these alternate with an applicative construction with *taŋ-*, in this usage colloated with the verb root *taw-* sit, be at':

(23) Yimas

- a. *tawra kantk-mampan aymbak*
money.IX.SG with-DL COP.3DL
'they (DL) have money'
- b. *tawra impa-na-taŋ-taw-n*
money.IX.SG 3DL.NOM-PRES-APPL_{COM}-sit-PRES
'they (DL) have money'

Both of these constructions seem equally common.

Another applicative construction which exhibits alternations with a basic construction is that involving the prefix *ira-*. It typically marks allative, a place or person toward which someone moves and alternates with a basic construction involving the postposition *nampan* 'toward, for':

(24) Yimas

- a. *na-nampan na-way-mpi-ya-ntut*
 3SG-toward 3SG.NOM-turn-SEQ-come-REM.PAST
 'he turned around and came back to her'
- b. *na-n-way-mpi-ira-ya-ntut*
 3SG.NOM-3SG.ERG-turn-SEQ-APPL_{ALL}-come-REM.PAST
 'he turned around and came back to her'

There is also what might be termed a metaphorical use of *ira*-, generally in association with verbs of emotional or cognitive states, in which the applied object is not only the cause of the state, but also the person or thing toward which the state is directed:

(25) Yimas

- a. *na-n-pay-ira-wampuy-kra-ntut*
 3SG.NOM-3SG.ERG-now-APPL_{ALL}-heart-cut-REM.PAST
 'he worried about her now'
- b. *yanukuran k-mp-ira-aykapiŋa-k-nakn*
 thought.VI.SG VI.SG.NOM-3DL.ERG-APPL_{ALL}-know-IRR-3SG.DAT
 'they (DL) thought about her'

The remaining three applicatives in Yimas, like the benefactive usage of *tanŋ*- lack alternative basic constructions with oblique phrases marked by postpositions. The first is visual *tanŋkway*-, which indicates that the actor performs an action while carefully visually monitoring the applied, necessarily animate, participant. Consider the following contrastive examples:

(26) Yimas

- a. *na-n-ira-wampaki-kia-k-nakn*
 3SG.NOM-3SG.ERG-APPL_{ALL}-throw-NIGHT-IRR-3SG.DAT
 'he threw it toward him' (in his direction)
- b. *na-n-tanŋkway-wampaki-kia-k-nakn*
 3SG.NOM-3SG.ERG-APPL_{VIS}-throw-NIGHT-IRR-3SG.DAT
 'he threw it at him' (looking at him)

A couple of other examples of *tanŋkway*- VIS:

(27) Yimas

- a. *na-mpu-tanŋkway-iranta-irm-kia-ntut*
 3SG.NOM-3PL.ERG-APPL_{VIS}-dance-stand-NIGHT-REM.PAST
 'they (PL) danced for her' (in her honor, watching for responses)

- b. *na-n-taŋkway-iray-jcut*
 3SG.NOM-32SG.ERG-APPL_{vis}-CRY-REM.PAST
 ‘he cried over her’ (looking at her body lying in the canoe)

The next non-alternating applicative is the kinetic *pampay-*, derived from an irregular reduplication of the verb root *pay-* ‘carry, lie’. It is used whenever the core argument introduced by the applicative is involved as the passive partner in act of carrying; it parallels some of the usages of the Coastal Marind associative applicative. Compare again the following contrastive examples:

- (28) Yimas
- a. *na-mpu-taŋ-wapal-kia-k*
3SG.NOM-3PL.ERG-APPL_{COM}-climb-NIGHT-IRR
'they (PL) came up with her' (comitative: she walked along too)
- b. *na-mpu-pampay-wapal-kia-k*
3SG.NOM-3PL.ERG-APPL_{KIN}-climb-NIGHT-IRR
'they (PL) came up with her' (carrying her)

A couple of other examples of *pampay*-KIN:

- (29) Yimas
- a. *na-mp-pampay-arm-kia-k*
3SG.NOM-3DL.ERG-APPL_{KIN}-board-NIGHT-IRR
'they (DL) boarded with him' (carried him in the same canoe as them)
- b. *tpwi i-mp-awkura-pampay-wapal-kia-k*
sago.X.PL X.PL.NOM-3DL.ERG-gather-APPL_{KIN}-climb-NIGHT-IRR
'they (DL) were gathering sago and carrying it up'

Finally, the last Yimas applicative is a rare *tur-*, which again expresses an idea related to the Coastal Marind associative, namely that the actor participant is pursuing an animate applied argument driving it to a place; ‘chase’ is a good translation:

- (30) Yimas
pu-n-tur-awramuŋ-k *ma-nan*
 3PL.NOM-3SG.ERG-APPL_{CHASE}-enter-IRR male.cult.house-OBL
 ‘he drove them into the male cult house’

4.3 Barupu (Piore River sub-family, Macro-Sko family; Corris 2005; Donohue 2003)

Barupu has far and away the most complex inventory of applicatives known in any Papuan language and one of the richest of any language anywhere. It has no less than thirteen distinct applicative forms, which are divided into two large groups: those which take subject agreement prefixes or infixes like main verbs and hence clearly derive from earlier serial verb constructions, partially illustrated in the examples of (4) above, and those which lack such agreement. Those which lack agreement are further divided into two sub-groups: those which denote locational notions and those which do not.

The most basic and general non-locational applicative affix is *-nâ*. This suffix is reconstructable as an applicative in Proto-Macro Sko (Donohue 2004) and has a wide range of meanings, but generally clustered around a notion of desired object, as in these examples (I will simply gloss it as APPL):

(31) Barupu

- a. *rua k-a-ko k-a-rói-nâ kamo*
bow R-3SG.M.SUBJ-get R-3SG.M.SUBJ-stand-APPL door
'he got the bow and stood with it at the doorway'
- b. *k-en-tova-nâ-re bÿyó*
R-1SG.F.SUBJ-walk_around-APPL-3PL.F.OBJ cassowary
'I'm hunting cassowary'
- c. *era k-ama-yôyó-nâ-ni?*
Q R-2SG.M.SUBJ-dream-APPL-1SG.F.OBJ
'did you (SG) dream about me?'

The other two non-locational applicatives are more transparent semantically:

(32) Barupu

- a. *-kê* ADVERSATIVE (negative affect on applied participant)
kua Betty á k-u-ai-kê-u
D PN rain R-3SG.F.SUBJ-rain-APPL_{ADVS}-3SG.F.OBJ
'it's raining on Betty' (bad for her)
- b. *-bo* WITHOUT
mônrai n-opu-títí-bo-na
dance IRR-2PL.M.SUBJ-dance-APPL_{WITHOUT}-1SG.M.OBJ
'you (PL) keep dancing without me'

The locational applicatives number four. In Barupu only inherently locational nouns like *ôro* 'house' can be used as bare nouns without applicativization; using any other type of noun in a locational usage requires one of these locational applicative suffixes:

(33) Barupu

- a. *k-e-ké<m>í* *ôro*
 R-1PL.F.SUBJ-sit<1PL.F.SUBJ> house
 ‘we sit in the house’
- b. **k-e-ké<m>í* *aka*
 R-1PL.F.SUBJ-sit<1PL.F.SUBJ> father
 ‘we are sitting on father’
- c. *k-e-ké<m>í-tá-ka* *aka*
 R-1PL.F.SUBJ-sit<1PL.F.SUBJ>-APPL_{ON}-3SG.M.OBJ father
 ‘we are sitting on father’

Here are examples of the four locative applicatives:

(34) Barupu

- a. *-tâ ON*
k-a-kéi-tá *âi niau*
 R-3SG.M.SUBJ-sit-APPL_{ON} tree log
 ‘he is sitting on a log’
- b. *-para UNDER*
k-rói-para-i *anania ku*
 R-stand-APPL_{UNDER}-3PL.M.OBJ tree.sp root
 ‘he stood under them at the roots of the *anania* tree’
- c. *-ya NEAR*
k-en-úte *k-en-no<n>i-ya-mu*
 R-1SG.F.SUBJ-walk R-1SG.F.SUBJ-go_along<1SG.F.SUBJ>-APPL_{NEAR}-2SG.F.OBJ
 ‘I walked past you (SG)’
- d. *-rômó AMID*
n-e-ké<n>i-romó-ré
 IRR-1SG.F.SUBJ-sit<1SG.F.SUBJ>-APPL_{AMID}-3PL.F.OBJ
 ‘I would sit among them (PL)’

Interestingly when these locative applicatives are used with transitive verbs which already have overt pronominal object suffixes, the applicative suffix follows the object suffix and any object suffix for the introduced applied participant then follows that. Hence, like in Mountain Arapesh (6f, g), the applicative suffix adds a core participant but otherwise does not affect the argument structure nor the basic inflectional pattern of the main verb:

(35) Barupu

- n-en-ere-ma-tá-ka*
 IRR-1SG.F.SUBJ-put-2SG.M.OBJ-APPL_{ON}-3SG.M.OBJ
 ‘I will put you (SG) on him’

This pattern of the applicative suffix after object inflection suggests that they were originally independent words, possibly verbs, like the next set of applicative suffixes. (they are unlikely to have been prepositions, as the language has none and is of OV, left branching typology). Their current lack of subject inflection probably is due to phonological factors (Corris 2005: 255).

There are six subject-agreeing applicatives in Barupu. Four of them were exemplified in (4), repeated here as (36) to which a fifth is added:

(36) Barupu

- a. *-ě* FROM
k-en-úte-n-ě-mú
 R-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{FROM}-2SG.F.OBJ
 'I walked away from you (SG)'
- b. *-ô* CAUSE
k-en-ké<n>í-n-ô-wa
 R-1SG.F.SUBJ-sit<1SG.SUBJ>-1SG.SUBJ-APPL_{CAUSE}-3SG.M.OBJ
 'I'm staying behind because of him'
- c. *-o* FOR
k-en-úte-n-o-mu
 R-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{FOR}-2SG.F.OBJ
 'I walked for you (SG)'
- d. *-î* WITH
n-en-úte-n-î-mu
 IRR-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{WITH}-2SG.F.OBJ
 'I will walk to be with you (SG)'
- e. *-ái* SURROUND
á k-u-ai-r-a<r>í-ni
 rain R-3SG.F.SUBJ-rain-3SG.SUBJ-APPL_{SUR}<3SG.SUBJ>-1SG.F.OBJ
 'the rain is blocking me' (surrounding me so I can't go out)

Although these applicative suffixes very much look like verbs due to their inflections, and undoubtedly their use as applicatives derives from earlier serial verb constructions, only one of them, *-o* FOR, is synchronically a verb root, not surprisingly, our familiar verb in this benefactive usage *-o* 'give'. Note that it is possible for multiple applicative suffixes to appear on the same verb, including multiple subject agreeing applicative suffixes (37c):

(37) Barupu

- a. *aro n-en-râivi-tá-u-n-o-a*
 greens IRR-1SG.F.SUBJ-cook-APPL_{ON}-3SG.F.OBJ-1SG.SUBJ-APPL_{FOR}-3SG.M.OBJ
ám něni
 husband 1SG.F.POSS
 'I'll cook greens on it for my husband'

- b. *k-en-úte-nâ-ka-n-i-mu*
 R-1SG.F.SUBJ-walk-APPL-3SG.M.OBJ-1SG.SUBJ-APPL_{WITH}-2SG.F.OBJ
 'I'm bringing him back to you'
- c. *k-e-ké<n>i-n-ě-*
 R-1SG.F.SUBJ-sit<1SG.F.SUBJ>-1SG.SUBJ-APPL_{FROM}
-mú-n-i-ya
 -2SG.F.OBJ-1SG.SUBJ-APPL_{WITH}-3SG.M.OBJ
 'I stayed away from you (SG), I stayed with him'

There is one further subject-agreeing applicative: the benefactive. Unlike all the others, it takes a prefix, not a suffix. Like Alamblak (9) and Yimas (10, 11), Barupu has two applicatives which cover the semantic range of benefactive, *-o* FOR in (36c) and (37a) above and the benefactive prefix *e-*. Consider the following contrastive examples:

- (38) Barupu
- a. *n-an-aro-n-o-ma*
 IRR-1SG.M.SUBJ-bring_down-1SG.SUBJ-APPL_{FOR}-2SG.M.OBJ
 'I will bring it down to you (SG)'
- b. *n-em-e-na-kô<m>e*
 IRR-2SG.M.SUBJ-APPL_{BEN}-1SG.M.OBJ-bring_up<2SG.M.SUBJ>
 'bring it up for me'

The difference between these is subtle, but seems to revolve around prior possession of the object being transferred to the beneficiary. The benefactive prefix entails that the actor already has possession of the object that he will give to the beneficiary, while *-o* FOR suggests that the actor will have to go and acquire the object beforehand. This would also explain the usage of *-o* FOR in (37a), although the semantics of (36c) seems entirely different. In light of its anomalous character, here are a few more examples of the benefactive applicative prefix in Barupu:

- (39) Barupu
- a. *n-em-e-nă-m-á*
 IRR-2SG.M.SUBJ-APPL_{BEN}-1SG.M.OBJ-2SG.M.SUBJ-eat
 'eat (it) for me'
- b. *k-er-e-a-r-ere-tá* *âi*
 R-3SG.F.SUBJ-APPL_{BEN}-3SG.M.OBJ-3SG.F.SUBJ-put-APPL_{ON} tree
 'she put (them) for him on the tree'

5 Polysemy, homophony and extensions of applicative morphemes

5.1 Adverbial uses

As we have seen thus far, applicative morphemes in Papuan languages commonly derive from older compound or serial verb constructions which have undergone grammaticalization and re-analysis to a greater or lesser extent. Adverbials also commonly arise from the same source, for example in Yimas:

(40) Yimas

- a. source verb root: *makɲc-* ‘move quietly/stealthily’
wurmpl pla-mpu-makc-mpi-wuntampwi-k
 flute.VI.DL VI.DL.NOM-3PL.ERG-quietly-ADV-blow_on-IRR
 ‘they (PL) quietly played the flutes’
- b. source verb root: *pramuɲ-* ‘sleep’
impa-n-taɲ-praŋka-mpi-aypu-kia-k
 3DL.NOM-3SG.ERG-COM-sleeping-ADV-recline-NIGHT-IRR
 ‘he slept with them (DL)’

Given these facts, it is not surprising that some of the applicative affixes in Yimas have adverbial uses in which their basic meaning holds, but they do not add arguments:

(41) Yimas

- a. *ya-n-taɲkway-wampaki-pra-k*
 V.PL.NOM-3SG.ERG-APPL_{VIS}-throw-TOWARD-IRR
 ‘he threw them down carefully’
- b. *aympanuɲ ku-mp-ira-yawra-k*
 pestle.X.SG X.SG.NOM-3DL.ERG-APPL_{ALL}-pick.up-IRR
 ‘they (DL) fetched a stick’

The prefix *taɲkway-* preserves its meaning of visually monitoring an event in (41a), but here fails to introduce a recipient participant who is watched during the performance of the event, so simply best translates as ‘carefully’ doing the action. Similarly, the allative meaning of *ira-* still obtains in (41b), but again in the absence of a goal participant being introduced, the intended goal meaning is taken to refer to the actor, so that ‘pick up’ becomes ‘fetch’, i.e. what is collected is intended to be in the possession of the actor.

5.2 Applicative/causative homophony

The homophony of applicative and causative morphemes has been noted in a number of other languages, perhaps the best known case being Indonesian (Musgrave, Arka and Rajeg, this volume), and this is true also of some Papuan languages. We have already seen above (9b) that Alamblak has two benefactive applicative suffixes, one of which is homophonous with the verb root *hay*- ‘give’. Alamblak has no less than four causative prefixes, contrasting direct versus indirect causation and spatiotemporal contiguity, but one of these is none other than *hay*-:

- (42) Alamblak (Bruce 1984)

hinu-t doh-t hay-ni-mě-t-t
 high.water-F canoe-F CAUS-go-REM.PAST-3SG.F.SUBJ-3SG.F.OBJ
 ‘the high water took the canoe away’

Note that when *hay* functions as a benefactive applicative marker it occurs as a suffix, but when a causative, it is a prefix. Also note that *hay*- is clearly a causative prefix in (42); the semantics of ‘give’ is completely bleached out, unlike in the corresponding usage of the benefactive suffix. Still (42) is clearly the result of a re-analysis of an earlier serial verb construction involving the verb ‘give’ in causative relationship with a following verb as in (43):

- (43) Alamblak

yima-r hay-noh-mě-r-a
 person-M give-unconscious-REM.PAST-3SG.M.SUBJ-1SG.OBJ
 ‘a man gave me (something) (causing) me (to become) unconscious’

Kopar (Lower Sepik sub-family, Lower Sepik-Ramu family) is another language in which the causative and applicative morphemes are homophonous. The causative prefix in this language is *t*-, possibly derived historically from a verb *tu*- ‘hit, kill’, now lost in Kopar but preserved in its sister Yimas:

- (44) Kopar

- a. *akən nanɡun ma-na pet t-mbu-t-kam-a*
 sun skin 1SG-POSS dark PFV-3.ERG-CAUS-become-PFV
 ‘the sun darkened my skin’
- b. *indan mbu-t-riker-ana-k*
 house 3.ERG-CAUS-get_up-3SG.DAT-REM.PAST
 ‘she erected a house for her’
- c. *ku-t-rərəja-bi-duku paret ngari*
 TR.IMP-CAUS-shake-IM.FUT-2PC outside DAT
 ‘you (PC) shake (it) until (it comes) out!’

A prefix of the same form functions as a comitative applicative:

(45) Kopar

- a. *ŋga-t-ra-(a)r-ang-naya*
INV-APPL_{COM}-stay-PROG-PRES-1SG
'she looks after me' (literally 'stays with me')
- b. *mayndəpak mbu-t-ra-(a)r-oro-k-ududu*
husband.PL 3.ERG-APPL_{COM}-stay-PROG-EXT-REM.PAST-3PL
'they (PC) remained with the husbands for a while'
- c. *Wak yo mbu-t-kar-ar-oro-k-ondu*
PN D 3.ERG-APPL_{COM}-walk-PROG-EXT-REM.PAST-3PL
'they (PL) walked around with Wak for a while'

The connection between the causative and comitative uses of this prefix can be gleaned from examples like the following:

(46) Kopar

- kingep mbu-t-rapo~rapo-sa-(a)r-oro-k-ondu*
ladder 3.ERG-APPL_{COM}/CAUS-run~ITER-in-PROG-EXT-REM.PAST-3PL
'they (PL) kept running around in with a ladder'

Obviously, a ladder, being inanimate, cannot run around under its own power; it needs to be caused to run. At the same time, it cannot be run around without someone or some people holding it while they run around with it; hence the ladder accompanies them while they are running with it. It appears likely that it was this use of the causative prefix with such motion verbs that is the source of the comitative meaning of this prefix.

5.3 Applicative/detransitivizer homophony

A few languages of the southern border region between Papua New Guinea and the Indonesian province of South Papua exhibit a quite striking and unexpected homophony between an applicative affix and a detransitivizing affix, treated here simply as a valence marker and glossed VAL. This is a feature of the languages of the Tonda sub-family of the Yam family such as Ngkolmpu (Carroll 2017) and Komnzo (Döhler 2018). Consider these examples from Ngkolmpu:

(47) Ngkolmpu (Carroll 2017)

- a. *Markus-w pr pi s-wance-y*
PN-SG.ERG tree 3.ABS 3.U-fall-SG.A.NR.PAST
'Markus felled the tree'

- b. *Markus t-a-wance-y*
 PN MID.PFV-VAL-fall-SG.A.NR.PAST
 ‘Markus fell’
- c. *Markus-w pr pi nson b-a-wance-y*
 PN-SG.ERG tree 3.ABS 1SG.DAT 1SG.U-VAL-fall-SG.A.NR.PAST
 ‘Markus felled the tree for me’

(47a) is a clause with a transitive verb: the subject is case marked with the ergative suffix and the object with the absolutive postposition. In addition, the verb is inflected transitively, with a prefix agreeing in person with the absolutive object and a suffix agreeing in number with the ergative subject. This clause can be detransitivized into an intransitive middle construction by the prefix *a-* in (47b), indicating that the action affects the actor, not the direct object, as in the transitive clause of (47a). The now intransitive verb only has subject agreement for number by a suffix and in addition takes an intransitive middle prefix for perfective aspect *t-*. Finally, (47c) takes a prefix *a-* of exactly the same form and distribution, but now functioning as an applicative prefix in order to add a beneficiary as a core argument. This participant appears as the dative case marked pronominal for first person singular, but also as a prefix to the verb as its direct object, exactly as did the absolutive case marked direct object in (47a), although both person and number are now indicated instead of just person as in (47a).

This is a very strange pattern: the same form both reduces and increases transitivity in Ngkolmpu. But an explanation may be forthcoming from the languages of another sub-family of the Yam family, those of the Nambu sub-family like Nen. In this language there is a reflexive-reciprocal prefix which detransitivizes verbs and has several allomorphs, but one of these is *a-*:

- (48) Nen (Evans 2015)
bm k-a-waka-ta-Ø
 2.ABS MID-REFL-look.at-NDL.IPFV-2SG.IMP
 ‘look at yourself’

And a prefix of the form (*w*)*a-*, which functions as an applicative to promote beneficiaries to core argument and direct object status:

- (49) Nen (Evans 2015)
ynd nu n-a-w-az-na-n be-gta
 1SG.ERG water 2SG.U-BEN-CAUS-pour-IPFV.NPAST-1SG.A 2SG-DAT
 ‘I’m pouring water for you (SG)’

A quite plausible scenario for the origin of the strange homophony in Ngkolmpu is leveling of the allomorphs of the two prefixes we find in Nen, resulting in homophony for what were earlier two distinct prefixes.

5.4 External Possession

In a number of Papuan languages, the benefactive applicative marker is also used to indicate external possession. External possession constructions occur when a human possessor of a nominal argument occurs as a pronominal agreement affix on the verb or otherwise as its core argument, instead of being realized as a possessor constituent internally in a noun phrase. Externalization of possessors crosslinguistically occurs most commonly from direct objects, but some languages extend this to subjects of intransitive unaccusative verbs, and sometimes even beyond, as Kopar, for instance, allows externalization of possessors from oblique nominals. The types of nouns from which possessors can be externalized is also commonly restricted to those which are inalienably possessed, typically those which denote body parts, but again not always. Barupu is a language which uses the benefactive applicative affix to mark external possession and then expresses the externalized possessor through pronominal agreement for direct object:

(50) Barupu (Corris 2005)

- a. *bo k-en-e-ma-yǎrá*
 bum R-1SG.M.SUBJ-APPL_{BEN}-2SG.M.OBJ-see
 ‘I can see your (SG) bum’
- b. *tó mú n-ep-e-n-tón*
 breast milk IRR-3PL.M.SUBJ-APPL_{BEN}-1SG.F.OBJ-drink
 ‘they will drink my breast milk’
- c. *anoku k-er-e-nâ-irai-r-o-re*
 story R-3SG.M.SUBJ-APPL_{BEN}-1SG.M.OBJ-say-3SG.M.SUBJ-APPL_{FOR}-3PL.F.OBJ
 ‘he told my stories to them’

Yimas has an interesting twist in its external possession constructions. Externalized possessors of inalienably possessed nouns like body parts are expressed in basic transitive or ditransitive constructions, with a bound pronominal from the dative series to express the possessor:

(51) Yimas

- a. *ŋarwa wa-ŋa-kwalca-t*
 penis.IX.SG IX.SG.NOM-1SG.DAT-get_up-PFV
 ‘I have an erection’
- b. *yampaŋ k-mpu-ŋa-kra-t*
 head.VI.SG VI.SG.NOM-3PL.ERG-1SG.DAT-cut-PFV
 ‘they (PL) cut my hair’

But when the possessed nouns are alienably possessed, the applicative prefix *taŋ-*, normally beneficiary/comitative, is used, again with a bound pronominal for the external-

ized possessor from the dative series; however, the meaning here is typically malefactive for the externalized possessor:

(52) Yimas

- a. *impram* *p-ŋa-na-taŋ-tat-n*
 basket.VII.SG VII.SG.NOM-1SG.DAT-PRES-APPL-hold-PRES
 ‘(they) seize my basket’
- b. *manpa* *na-kay-taŋ-awkura-kr-mpun*
 crocodile.SG 3SG.NOM-1PL.ERG-APPL-get-REM.FUT-3PL.DAT
 ‘we (PL) will steal their (PL) crocodile’

6 Lookalike constructions

6.1 Promiscuous promotion to core from oblique without applicative marking

Languages sometimes permit promotion of an oblique participant to core argument status without any overt morphological marking, especially when that participant is a beneficiary. English, for example, is one such language: *John baked a cake for Mary*, *John baked Mary a cake*. Such promotion of beneficiaries to core without any applicative marking does not appear to be common among Papuan languages, but Coastal Marind is one such language, as in (20a). Yeri (West Palei sub-family, Torricelli family) is another, but permits this construction to extend far beyond beneficiaries to oblique participants with a range of semantic roles. Like Torricelli family languages generally, Yeri inflects verbs with bound pronominals for both subjects and objects. In Torricelli languages bound subject pronominals are prefixed, but bound object pronominals can be prefixes or suffixes. In some Torricelli languages like Urim, bound object pronominals are always suffixes or enclitics (see [17]), but in others like Mountain Arapesh, they can be either prefixes or suffixes depending on verb class (see [6f, g]). Yeri is particularly interesting in that the split between prefix or suffix for bound object pronominals is determined by person; first and second person bound object pronominals are always prefixed:

(53) Yeri (Wilson 2017)

- a. *y-b-ogera*
 2PL.SUBJ-1SG.OBJ-chase.R
 ‘you (PL) chased me’
- b. *wo* *n-w-osia*
 sun 3SG.M.SUBJ-1PL.OBJ-heat.R
 ‘the sun heats us’

- c. *lawiaki m-y-asikera*
 long_ago 1SG.SUBJ-2.OBJ-carry_on_hip.R
 'long ago I carried you'

Like English pronouns, bound object pronominals in Yeri distinguish number in first person, but not in second. Third person bound pronominals are suffixes (sometimes infixes for a minority of the most common verb roots, just over 10%). When suffixed, they cannot be directly added to the verb root. Rather before suffixation of the bound object pronominal, the verb root must first be augmented by another suffix with a number of allomorphs morphologically determined by the verb, here simply glossed as AUG:

- (54) Yeri (Wilson 2017)
 a. *y-ogera-we-i*
 2PL.SUBJ-chase.R-AUG-3PL.OBJ
 'you (PL) chased them' (compare [53a])
 b. *w-okī hīlian w-gare-wa-n*
 3SG.F.SUBJ-use.R sand 3SG.F.SUBJ-dig.R-AUG-3SG.M.OBJ
 'she took the sand and dug it'

These bound object pronominals can be used to denote participants functioning as direct objects for a number of semantic roles that are typically realized as oblique constituents in other languages, but with no other morphological marking:

- (55) Yeri (Wilson 2017)
 a. recipient
te-n ta n-b-nobia hem
 3-M.SG FUT 3SG.M.SUBJ-1SG.OBJ-tell.R 1SG
 'he will tell me'
 b. beneficiary
ye ta n-w-a<ne>guti nanu-la hebi
 2SG FUT 2SG.SUBJ-1PL.OBJ-burn.R<3SG.M.OBJ> fish-SG 1PL
 'you (SG) will cook a fish for us'

Note the triple agreement in this example. Promotion of the beneficiary to core with this transitive verb *aguti*- 'burn, cook' derives a ditransitive verb. The original direct object *nanu-la* fish-SG continues to agree via a bound object pronominal as it would in an underived verb, i.e. by infixation, while the new added object agrees via the normal prefix for first person direct objects. There is no demotion of the original direct object when the oblique role is promoted to object function. With a third person benefactive, suffixation with augmentation occurs, again along with infixation for the original direct object:

(55) Yeri (Wilson 2017)

c. beneficiary

hem m-a<ne>guti-da-n nanu-la te-n
 1SG 1SG.SUBJ-burn.R<3SG.M.OBJ>-AUG-3SG.M.OBJ fish-SG 3-M.SG
 ‘I cooked a fish for him’

d. external possessor

huba n-y-ilkial yewal
 hawk 3SG.M.SUBJ-2.OBJ-pull.IRR eye
 ‘may the hawk pull out your eyes’

e. cause

yem tomal y-ana y-w-arwal hebi
 2PL PROH 2PL.SUBJ-come 2PL.SUBJ-1PL.OBJ-cry.R 1PL
 ‘don’t cry because of us’

f. goal

ta n-gei-ka-n nebal yewal-ti
 FUT 2SG.SUBJ-leave.R-AUG-3SG.M.OBJ tree eye-SG
n-anor-e-n yot-ua-n
 3SG.M.SUBJ-descend-AUG-3SG.M.OBJ DEM.FR.DIST-M.SG
 ‘you (SG) will put the cocoa beans into it there’

g. location

hasieki-l Ø-awil-a-i woli woli
 fire-PL 3PL.SUBJ-hang.R-AUG-3PL.OBJ side side
 ‘they have many lights on them’

h. accompaniment

pueti yot-u-n n-b-giekir
 betelnut DEM-NR.DIST-M.SG 3SG.M.SUBJ-1SG.OBJ-bend.R
 ‘that betelnut palm would bend with me’

In addition to this morphologically unmarked promotion to object, Yeri also has a canonical applicative marked by the suffix *-ki*; this can occur with (56b, c) or without (56a, d, e) a bound pronominal suffix. Most commonly it introduces a benefactive core participant, but can indicate other roles as well (56c, d, e):

(56) Yeri (Wilson 2017)

a. beneficiary

la magil Ø-y-ati-ki hasieki-l yem
 PAST who 3PL.SUBJ-2PL.OBJ-blow_on-APPL fire-PL 2PL
 ‘who blew on the fires for you (PL)?’

b. beneficiary

te-n n-ga-<Ø>kua-ki-da-m moti
 3-M.SG 3SG.M.SUBJ-wash.R<3SG.F.OBJ>-APPL-AUG-PL.OBJ pot
 ‘he washed pots for them’

c. cause

Ø-*b-ie*<*m*>*kewa-ki-da*-Ø

3SG.F.SUBJ-1SG.OBJ-be-angry.R<IPFV>-APPL-AUG-3SG.F.OBJ

‘she got angry with me because of it’

d. cause

te-i la Ø-*ogera-we-i-ki* *mana*-Ø

3-PL PAST 3PL.SUBJ-chase-AUG-PL.OBJ-APPL what-F.SG

‘what did they chase them for?’

e. goal/purpose

hebi la Ø-*aro* *nanai-ki* *nanu-bia*

1PL PAST 1PL.SUBJ-go.R go_in.R-APPL fish-PL

‘we went in for the fish’

6.2 Re-analysis of applicative morphemes into transitivity markers

The languages of the Finisterre-Huon sub-family of the Trans New Guinea family have re-analyzed what were applicative markers into conjugation markers for verb classes. Consider again the kind of applicatives through verb compounding with ‘give’ or ‘put’ for marking benefactives in Trans New Guinea languages by exemplified in (8). Already in Lower Grand Valley Dani this pattern of verb compounding to express pronominal direct objects is extended beyond only marking benefactive to indicating nearly all pronominal direct objects with human referents. In this language, very few transitive verbs can be inflected underived with bound pronominal prefixes for direct objects with human referents; in fact, the only verbs that can are (*w*)*at*- ‘hit, kill’, *hei*- ‘put’ and *ha*- ‘see’, the latter two of which have complex irregular and sometimes suppletive conjugations:

(57) Lower Grand Valley Dani (Bromley 1981)

a. *n-at-h-e*

1SG.OBJ-hit-R-3SG.SUBJ

‘he hit me’

b. *h-akeik-h-e*

2SG.OBJ-put-R-3SG.SUBJ

‘they put you (SG)’

All other verbs require one of the four supporting verbs, *hei*- ‘put’, *ha*- ‘see’, *et*- ‘give’ or *ap*- ‘do for’, to be compounded with them in order to co-occur with a bound object pronominal, which are prefixed to the supporting verb:

(58) Lower Grand Valley Dani (Bromley 1981)

- a. *hetamoʔ-n-et-h-e*
scold-1SG.OBJ-give-R-3SG.SUBJ
'he scolded me'
- b. *woʔ-n-ap-h-e*
take-1SG.OBJ-do_for-R-3SG.SUBJ
'he received me'
- c. *wam woʔ-n-et-h-e*
pig take-1SG.OBJ-give-R-3SG.SUBJ
'he gave me a pig'

Note that *et-* 'give' and *ap-* 'do for' do not occur as independent verbs, only as supporting verbs which must be compounded with another main verb, as in (58). A given main verb can often be compounded with multiple supporting verbs, for example *pa-* 'cut, sever, divide':

(59) Lower Grand Valley Dani (Bromley 1981)

- a. *wvt pa-n-ap-he-e*
initiation cut-1SG.OBJ-do_for-R-3SG.SUBJ
'he initiated me'
- b. *wam pa-n-et-h-e*
pig cut-1SG.OBJ-give-R-3SG.SUBJ
'he selected a pig for me' (compare [58c])
- c. *n-esi pa-n-eeik-h-e*
1SG.POSS-hair cut-1SG.OBJ-see-R-3SG.SUBJ
'she cut my hair' (external possession)
- d. *hakki pa-n-akeik-h-e*
bananas cut-1SG.OBJ-put-R-3SG.SUBJ
'he cut some bananas and put them aside for me'

Languages of the Finisterre-Huon sub-group of the Trans New Guinea family also require supporting verbs to carry bound object prefixes for transitive verbs. However, in these languages the semantic contrasts we find between them in Lower Grand Valley Dani is lost, so that each transitive verb occurs with only one supporting verb. In Selepet, for example, the supporting verbs are *ek-* 'see', *oho-* 'hit' and *ihi-* 'give', but the semantic contrasts motivating their usage in Lower Grand Valley Dani no longer holds, so the selection of supporting verb by any main verb seems synchronically arbitrary:

(60) Selepet (McElhanon 1970)

- a. *gʷi-n-ek-sa-p*
cut-1SG.OBJ-see-IM.PAST-3SG.SUBJ
'he cut me'

- b. *pene-n-ihī-a-p*
join-1SG.OBJ-give-IM.PAST-3SG.SUBJ
'he joined me'
- c. *tɔn-n-oɦo-a-p*
help-1SG.OBJ-hit-IM.PAST-3SG.SUBJ
'he helped me'

With 1. the requirement that all transitive verbs save 'see', 'hit' and 'give' co-occur with a supporting verb, 2. the collapse of the semantic distinctions motivating the choice of supporting verb, and finally 3. the restriction of one and only one supporting verb specified for each main verb, the synchronic system of supporting verbs in Selepet simply reduces to transitivity marking morphology determined by verb class, fundamentally a set of conjugation classes. In some languages of the Madang sub-family of Trans New Guinea, the system collapses further to a single transitivity suffix, as in Tauya:

(61) Tauya (MacDonald 1990)

- a. *ʔumu-a-ʔa*
die-3.SG.SUBJ-IND
'he died'
- b. *ʔumu-fei-fe-a-ʔa*
die-3SG.OBJ-TR-3SG.SUBJ-IND
'he killed him'

With transitive verb roots, the transitivity suffix *-fe* derives ditransitive verbs, typically with beneficiaries, so here preserves something of its older applicative function so well attested elsewhere in Trans New Guinea languages:

(62) Tauya (MacDonald 1990)

- a. *wate eʔi-i-ʔa*
house make-3PL.SUBJ-IND
'they built a house'
- b. *wate eʔi-ya-fe-i-ʔa*
house make-1SG.OBJ-TR-3PL.SUBJ-IND
'they built me a house'

The language isolate Yale also exemplifies a system of verbal inflection that goes back to verb compounding with earlier supporting verbs now grammaticalized into conjugation markers. Verb roots in Yale belong to one of four conjugation classes. The primary distinction is between those verb roots which take prefixal and suffixal agreement for subjects and those which only take suffixes. The very few verb roots which take prefixal subject agreement belong to one class; all other verb roots take exclusively suffixal

agreement and in turn break down into three conjugation classes depending on the consonant that occurs between the subject and object bound pronominal suffixes:

(63) Yale (Aannestad, Campbell, and Campbell 2020)

- a. *hui-no-d-Ø-ë-o*
see-1SG.SUBJ-d-3SG.F.OBJ-1SG.SUBJ-DECL
'I see her'
- b. *swa-no-to-m-ë*
wash-1SG.SUBJ-t-3PL.OBJ-1SG.SUBJ
'I wash them'

The three consonantal conjugation markers are as follows:

- d the largest class, with no obvious semantic or syntactic grounds for the grouping; includes both transitive and intransitive verbs
- t found with transitive verbs whose subjects cause a change of state in their objects, e. g. 'slice', 'cut', 'sharpen', 'wash', 'cause something'
- b a small class of intransitive verbs denoting involuntary events, e. g. 'die', 'sleep'

Individual verb roots can shift between these conjugation classes with a corresponding change in semantics:

(64) Yale (Aannestad, Campbell, and Campbell 2020)

- a. *tëbo-dë-de*
be.ill-3SG.M.SUBJ-d
'he is ill'
- b. *tëbo-do-te-d-o*
be.ill-3SG.M.SUBJ-t-3SG.M.OBJ-DECL
'he made him ill'

This system is highly reminiscent of the patterns of conjugation by supporting verbs that we found in Trans New Guinea languages like Lower Grand Valley Dani and Selepet. These conjugation markers were originally verb roots in their own right, and in an earlier period of the language, all verbs took prefixes for subject agreement, though only three now preserve this older system. As in Selepet, over time the supporting verbs have become morphologically bound to the main verb resulting in the synchronic system of verb inflection:

(65) Yale (Aannestad, Campbell, and Campbell 2020)

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> *<i>hui no-d-Ø-ë</i> see 1SG.SUBJ-give-3SG.F.OBJ-1SG.SUBJ | > | <ul style="list-style-type: none"> <i>hui-no-d-Ø-ë</i> see-1SG.SUBJ-d-3SG.F.OBJ-1SG.SUBJ 'I see her' |
|--|---|---|

Indeed, it is obvious that the *-d* of the d-conjugation class is sourced in none other than the verb root ‘give’ (compare with the Selepet form in [60b]):

(66) Yale (Aannestad, Campbell, and Campbell 2020)

- a. *kide-ne-d-Ø-ë-o*
abandon-1SG.SUBJ-d-3SG.F.OBJ-1SG.SUBJ-DECL
‘I left it behind’
- b. *në-d-Ø-ë-o*
1SG.SUBJ-give-3SG.F.OBJ-1SG.SUBJ-DECL
‘I gave (it) to her’

This re-analysis of supporting verbs which originally functioned like applicatives into licensors for bound object pronominals for human referents, especially speech act participants like first and second person, and ultimately into morphologically determined transitivity markers is attested among Papuan languages of various families, but is especially widespread among sub-families of the vast Trans New Guinea family.

6.3 Re-analysis of applicatives into pronominals

Abui (Alor-Pantar sub-family, Trans New Guinea family) (Kratochvíl 2007, 2011) illustrates another pathway of re-analysis for applicative morphemes, but this one seems much less common outside of languages spoken on Alor Island. Abui and some other languages of Alor such as Adang (Robinson and Haan 2014) and Kamang (Schapper 2014) have multiple sets of bound pronominals, each associated with a different semantics. Here is the basic system in Abui:

Table 1: Abui pronominals (Kratochvíl 2011: 591).

		A		U			
			PAT	REC	LOC	GOAL	BEN
SG	1	<i>na</i>	<i>na-</i>	<i>no-</i>	<i>ne-</i>	<i>noo-</i>	<i>nee-</i>
	2	<i>a</i>	<i>a-</i>	<i>o-</i>	<i>e-</i>	<i>oo-</i>	<i>ee-</i>
PL	1EXCL	<i>ni</i>	<i>ni-</i>	<i>nu-</i>	<i>ni-</i>	<i>nuu-</i>	<i>nii-</i>
	1INCL	<i>pi</i>	<i>pi-</i>	<i>pu-/po-</i>	<i>pi-</i>	<i>puu-/poo-</i>	<i>pii-</i>
	2	<i>ri</i>	<i>ri-</i>	<i>ri-/ro-</i>	<i>ri-</i>	<i>ruu-roo-</i>	<i>rii-</i>
	3	Ø	<i>ha-</i>	<i>ho-</i>	<i>he-</i>	<i>hoo-</i>	<i>hii-</i>

The actor pronouns are free forms, but all five of the undergoer series of pronouns are bound prefixes. The basic opposition of actor versus undergoer is correct here, as Abui clausal structure is organized along rough semantic lines that contrast these notions, not subject and object: schematically, the actors of both transitive and unerga-

tive intransitive verbs occur with the actor set of pronouns, while undergoers of both transitive and unaccusative intransitive verbs select one of the undergoer pronominal prefixes. Formally it is clear that all of the undergoer prefixes except those for patients are derived from the patient form plus a vowel: REC *o*, LOC *e*, GOAL *oo* and BEN *ee*. These vowels look like applicative prefixes and certainly their syntactic behavior with transitive verbs suggests that:

(67) Abui

- a. *na a-ruidi*
1SG.A 2SG.PAT-wake_up.PFV
'I woke you (SG) up'
- b. *Fanmalei no-k yai*
PN 1SG.REC-throw laugh.PFV
'Fanmalei laughed at me'
- c. *a palootang ne-l bol*
2SG.A rattan 1SG.LOC-give hit
'you (SG) hit me with a stick'
- d. *a noo-dik*
2SG.A 1SG.GOAL-prick
'you (SG) are poking me'
- e. *ma na ee-bol*
be 1SG.A 2SG.BEN-hit
'let me hit (it) for you (SG)'

The same verb root can commonly occur with multiple undergoer prefixes with different meanings:

(68) Abui

- a. *wik ha-wik no-wik*
'carry' 3.PAT-carry 1SG.REC-carry
'carry him' 'carry for myself'
he-wik noo-wik nee-wik
3SG.LOC-carry 1SG.GOAL 1SG.BEN
'carry it' 'let me carry' 'carry for me'
- b. *rumai ha-rumai no-rumai*
'strong' 3SG.PAT-strong 1SG.REC-strong
'strengthen it' 'I feel strong'
he-rumai noo-rumai nee-rumai
3SG.LOC-strong 1SG.GOAL-strong 1SG.BEN-strong
'it is strong' 'rely on me' 'strong for me'

All of this is remarkably reminiscent of the different semantics for the choice of supporting verbs in Lower Grand Valley Dani exemplified in (59), and in fact Kratochvíl (2007: 2005) argues that the contrastive vowels, plausibly applicatives in the examples in (67), of at least some of the undergoer prefixes go back to older incorporated verb roots, **a* ‘be at’, **e* ‘add, continue’, **o* ‘point’:

(69) Abui (Kratochvíl 2007: 2005)

- a. **na-a* *fanga* > **n-a=fanga* > *na-fanga*
 1SG-be_at say 1SG-be_at=say 1SG.PAT-say
 ‘tell/order me’
- b. *ha-e* *fanga* > **h-e=fanga* > *he-fanga*
 3SG-add say 3-add=say 3.LOC-say
 ‘say it’
- c. **na-o* *fanga* > **n-o=fanga* > *no-fanga*
 1SG-point say 1SG-point=say 1SG.REC-say
 ‘scold me’

This scenario of re-analysis would suggest that Abui is just another example of the common process in Papuan languages of re-analyzing verbs in compound or serial verb constructions into applicative morphemes. Like the use of supporting verbs in other Trans New Guinea languages, the original lexical semantics of these verbs has been bleached, so that they essentially signal the typical semantic roles of oblique participants, like canonical applicative affixes crosslinguistically. But a purely applicative analysis of these forms simply cannot be synchronically correct for Abui, for whatever the plausible origin of these pronominal prefixes in verbs and whatever their apparent applicative functions in (67), this analysis is no longer tenable, since they can now be used to denote undergoers of unaccusative intransitive verbs. Appearing on single argument intransitive verbs, an applicative function is not possible:

(70) Abui

- a. *na-kaai*
 1SG.PAT-stumble
 ‘I stumbled’
- b. *no-bui*
 1SG.REC-short
 ‘I am short’
- c. *he-beeka*
 3SG.LOC-bad
 ‘it is bad’
- d. *noo-lila*
 1SG.GOAL-hot
 ‘I feel hot’

So, while the contrasting vowels of the sets of undergoer prefixes in Abui may have started out as verbs, which were then re-analyzed into applicative prefixes in the common pathway we have seen in Papuan languages, they can no longer be analyzed as such. Rather, they are synchronically simply semantically contrastive sets of bound pronominals. What seems to be responsible for this rare development in Abui is its thoroughgoing actor-undergoer split. Due to the basic actor-undergoer contrast that is pivotal to the clause level grammar of Abui and crosscuts transitivity, once undergoers of transitive verbs exhibited these semantic contrasts in pronominals, this would spread to undergoers of intransitive verbs, rendering any applicative function obsolete and any such analysis of these forms untenable.

6.4 Information structure markers from applicatives

Some languages of the Lower Ramu family illustrate yet another type of re-analysis of an earlier applicative, here into an information structure marker. Consider the case of Watam. In this language all oblique arguments are case marked by postpositions, while subjects and inanimate direct objects are unmarked (animate direct objects are usually, though not obligatorily, marked with the dative postposition *mo*). Word order of core arguments is free, but they must precede the verb; oblique arguments can follow the verb, but crucially they cannot immediately precede the verb:

(71) Watam

- a. *was nakan padon an mo panai-ri nimon mba*
wind big tree D do bend-PAST night LOC
'a big wind bent the tree at night'
- b. *nimon mba padon an was nakan mo panai-ri*
night LOC tree D wind big do bend-PAST
'a big wind bent the tree at night'
- c. **was nakan padon an nimon mba mo panai-ri*
wind big tree D night LOC do bend-PAST
- d. *namot an yak mo rung-ri endau nik*
man D 1SG DAT hit-PAST house inside
'the man hit me inside the house'
- e. *endau nik yak mo namot an rung-ri*
house inside 1SG DAT man D hit-PAST
'the man hit me inside the house'
- f. **namot an yak mo endau nik rung-ri*
man D 1SG DAT house inside hit-PAST

This permutability of constituents, however, is not the whole picture of Watam clausal constituency. With the addition of the prefix *nga-* with various allomorphs, oblique con-

stituents can immediately precede the verb and be stripped of their case marking postposition (72a), although semantically fuller postpositions remain (72b):

(72) Watam

- a. *was nakan padon an nimon nga-mo panai-ri*
 wind big tree D night NGA-do bend-PAST
 ‘a big wind bent the tree at night’
- b. *namot an yak mo endau nik nga-rung-ri*
 man D 1SG DAT house inside NGA-hit-PAST
 ‘the man hit me in the house’

The placement possibilities for oblique constituents with *nga-* marked verbs are exactly the opposite of those without *nga-*. They can only immediately precede the verb; any other order is ungrammatical:

(73) Watam

- a. **endau nik namot an yak mo nga-rung-ri*
 house inside man D 1SG DAT NGA-hit-PAST
 ‘the man hit me in the house’
- b. **namot an yak mo nga-rung-ri endau nik*
 house D 1SG DAT NGA-hit-PAST house inside
 ‘the man hit me in the house’

These data suggest that *nga-* is a type of applicative promoting an oblique constituent to core status, although the postposition remaining in examples like (72b) is problematic. While the origins of *nga-* were applicative in function, as indicated by Aruamu/Mikarew examples in (78)–(80) below, problematic for a such an analysis in Watam synchronically is the fact that core arguments also co-occur with *nga-* marked verbs and are subject to the same absorption of case postposition and restriction on movement as oblique arguments:

(74) Watam

- a. *namot an yak nga-rung-ri*
 man D 1SG NGA-hit-PAST
 ‘the man hit me’
- b. **yak namot an nga-rung-ri*
 1SG man D NGA-hit-PAST
 ‘the man hit me’ (compare [71e])

The verb root *rung-* ‘hit’ is transitive with two core arguments, a hitter and a hittee, so in no sense can *nga-* be claimed to be functioning as an applicative in (74a) because no argument is being added to this verb’s argument array and there is no promotion of

an oblique argument to core status. Nor does it function adverbially without adding arguments, as with the Yimas applicatives in (41); no such meaning is added in (74a) as opposed to (71d). Also, adverbs can co-occur with *nga*-marked verbs; adverbs are not arguments at all, so, again, there is no promotion of an oblique argument:

(75) Watam

- a. *ma ama nga-sang-ri*
3SG again η GA-go-PAST
'he went again'
- b. *namot an yaon ga-bop-ri*
man D good η GA-speak-PAST
'the man spoke well'

So, while *nga*- originated as an applicative morpheme and still often functions like one, in other cases like (74) and (75) it clearly does not. So, what is its function? It is a marker of information structure, indicating the constituent immediately preceding the *nga*-marked verb is focused. Consider these mini-dialogs:

(76) Watam

- a. Q: *u sumba?*
2SG to_where
'where are you going?'
A: a: *yak manar nga-san-ta*
1SG beach η GA-go-PRES
b: **yak manar san-ta*
1SG beach go-PRES
'I'm going to the beach'
- b. Q: *tai mo namot an rugu-r minik-ri?*
who DAT man D hit-R die-PAST
'who did the man kill?'
A: a: *namot an Matit nga-rugu-r minik-ri*
man D PN η GA-hit-R die-PAST
'the man killed Matit'
b: **Matit mo namot an nga-rugu-r minik-ri*
PN DAT man D η GA-hit-R die-PAST

Only the (a) answers in (76) are acceptable responses to the posed questions. The questions set up the place I am going to or the person killed by the man as focused information, highlighted as being sought by the questioner. When supplied in the answer, it must be in the focused position selected by a *nga*-marked verb. The following contrastive examples further demonstrate this usage:

(77) Watam

- a. *ma njinak an ore-r angi-ri*
 3SG knife D find-R take-PAST
 (looking for a knife) 'he found the knife'
- b. *ma njinak ŋg-ore-r angi-ri*
 3SG knife ŋGA-find-R take-PAST
 (looking for something else) 'he found a knife'

In (77a) *njinak* 'knife' is already activated in discourse; what is under discussion is the search for a particular knife. Consequently when found, the event is reported without the use of *ŋga*. In (77b) the topic under discussion is the search for some object; *njinak* 'knife' is unactivated. When it is reported that a knife is found, *njinak* 'knife' is now focused information, and as such must be presented in the focused immediately pre-verbal position in combination with a *ŋga*-marked verb. Clearly, *ŋga*- now mainly functions as a discourse based information structure marker for focused constituents. Whatever applicative function it now has is clearly secondary, though that is its ultimate origin, as the applicative function of its cognate prefix *g*- is more transparent in another Lower Ramu language, Aruamu/Mikarew (*g*- has an allomorph, *ba*- with verb roots with a following /o/ which then deletes if immediately following the /a/ of the prefix) (Relyea 1992a, 1992b):

(78) Aruamu/Mikarew

- a. *me ikerar-i*
 3PL play-PRES
 'they (PL) are playing'
- b. *me soka g-ikerar-i*
 3PL soccer APPL-play-PRES
 'they (PL) are playing soccer'

(79) Aruamu/Mikarew

- a. *Araka bogonaro-n ot-e*
 PN yesterday-OBL give_birth-PAST
 'Araka gave birth yesterday'
- b. *Araka bogonaro-n guivi-m ba-(o)t-e*
 PN yesterday-OBL daughter-SG APPL-give_birth-PAST
 'Araka gave birth to a daughter yesterday'

(80) Aruamu/Mikarew

- ko ofos-n John ba-to*
 1SG office-OBL PN APPL-arrive.PAST
 'I met John at the office' (lit. 'arrived with/at John')

7 Conclusion

In spite of the enormous genetic and typological diversity of Papuan languages, it is possible to make a few generalizations about their patterns of applicativization. The following broad claims hold true:

Morphology

- Applicative morphemes in Papuan languages usually arise historically from re-analysis and grammaticalization of incorporated verbs. This seems invariably true of those languages with an OV left branching typology. In languages with a VO right branching typology, applicative morphemes developing from incorporated prepositions is attested.
- The degree of lexicalization of applicative morphemes in Papuan languages is unknown, but in the languages in which applicative morphemes have been most studied it seems negligible.

Syntax

- Papuan languages do not normally allow verbs to have more than three core arguments, so applicative constructions are typically restricted to intransitive and transitive verb roots.
- Applicative morphemes in Papuan languages are valency increasing; exceptions are when they function as adverbial modifiers, a not surprising double function given their origin in verbs.
- Most commonly, the applied participant assumes the grammatical relation of direct object and usurps the bound pronominal of the original direct object when an applicative construction occurs with a transitive verb. However, some languages (Barupu, Coastal Marind, Mian, Mountain Arapesh, Yimas) are examples of the crosslinguistic rarity of triple agreement languages and allow the original direct object to preserve its pronominal position and either double up on bound pronominal direct object marking or express the applied participant in a dative marked pronominal.
- Applicative constructions are commonly obligatory for benefactive participants, there being no basic construction with the beneficiary as an oblique constituent. This constraint is less binding for other types of semantic roles, though some languages like Barupu do insist on applicative constructions in all such cases.
- Where available, applicative affixes freely combine with causative affixes, as long as their combination does not exceed a derived ditransitive verb; hence such dual derivation is restricted to intransitive verb roots. Papuan languages normally lack voice oppositions like passives, so applicative morphemes cannot interact with them.

Semantics

Applicative morphemes in Papuan languages range from a single morpheme semantically unspecified (Amele, Mountain Arapesh) to a large inventory of them with rich semantic specifications (Barupu, Yimas).

Lookalikes and others

Non-applicative functions of applicative markers include their use as transitivity markers, their use as pronominals, and as a focalization device for preverbal constituents.

Abbreviations

A	actor
ABS	absolutive
ACCOMP	accompaniment
ADV	adverbial
ADVS	adversative
ALL	allative
AN	animate
APPL	applicative
AUG	augment
BEN	benefactive
CAUS	causative
COM	comitative
COP	copula
D	determiner
DAT	dative
DECL	declarative
DEM	demonstrative
DIST	distal
DL	dual
DUR	durative
ERG	ergative
EXCL	exclusive
EXT	extended aspect
F	feminine
FR.PAST	far past
FUT	future
HAB	habitual
IMP	imperative
IM.PAST	immediate past
INCL	inclusive
IPFV	imperfective
IND	indicative

INSTR	instrumental
INV	inverse
IRR	irrealis
ITER	iterative
KIN	kinetic
LOC	locative
M	masculine
MID	middle
N	neuter
NAFUT	non-asserted future
NDL	non-dual
NOM	nominative
NPAST	non-past
NR.DIST	near distal
NR.PAST	near past
NSG	non-singular
NVO	neutral verb orientation
OBJ	object
OBL	oblique
OVO	object verb orientation
PAST	past
PAT	patient
PC	paucal
PFV	perfective
PL	plural
PN	proper name
POSS	possessive
PREP	preposition
PRES	present
PROG	progressive
PROH	prohibitive
Q	question
R	realis
REC	recipient
REFL	reflexive
REM.PAST	remote past
SG	singular
SEP	separative
SEQ	sequence
SUBJ	subject
SUR	surrounding
TR	transitive
U	undergoer
VAL	valence
VIS	visual
1, 2, 3	grammatical persons
I, II, . . .	noun classes

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13 Applicative constructions in Australian Aboriginal languages

Abstract: Applicative constructions are found in a number of the Indigenous languages spoken in Australia, though they do not exist in the majority of languages for which reliable morpho-syntactic data is available.¹ Several typological patterns can be found, suggesting a basic division between comitative-locative constructions, and benefactive-malefactive constructions. These are encoded morphologically by prefixation in some languages, and by suffixation in others. In a large number of languages with applicatives, there is a relationship with causative constructions; in some a single affix serves as both applicative and causative depending on the semantic nature of the verb to which it is affixed. In some languages, applicatives only occur with intransitive base verbs. For languages where applicatives occur to transitive base verbs there are two types: (a) in those with ditransitive base verbs, applicative constructions show the applied element as a direct argument of the applied verb; (b) in those without ditransitive base verbs, anti-passive constructions must be applied to the base verb before applicatives can be added, with an argument of the base transitive verb appearing in a non-argument role in the resulting applicative. Applicative lookalike constructions are found in a few languages.

1 Introduction

At the time of colonisation (beginning in the 18th century),² Australia was occupied by about 600 groups of Indigenous peoples;³ each group had their own territory, laws, socio-cultural characteristics, and distinctive ways of speaking. Linguistically, these can be grouped into up to 500 separate languages (Bower 2022, Horton 1996).⁴

¹ For an earlier survey see Austin (1997), which was written before most of the detailed research on northern Australian languages was completed and published. This paper supersedes the analysis presented there.

² Colonisation began in 1788 in Sydney, New South Wales, and gradually extended throughout the south-east and south-west of the continent, plus Tasmania. Central Australia and the north-east of the Northern Territory were settled in the 20th century.

³ Indigenous Australians are officially categorised as Aboriginal and Torres Strait Islanders (ATSI).

⁴ See <https://aiatsis.gov.au/explore/map-indigenous-australia> for an interactive version of the Horton map (accessed 2023-11-20).

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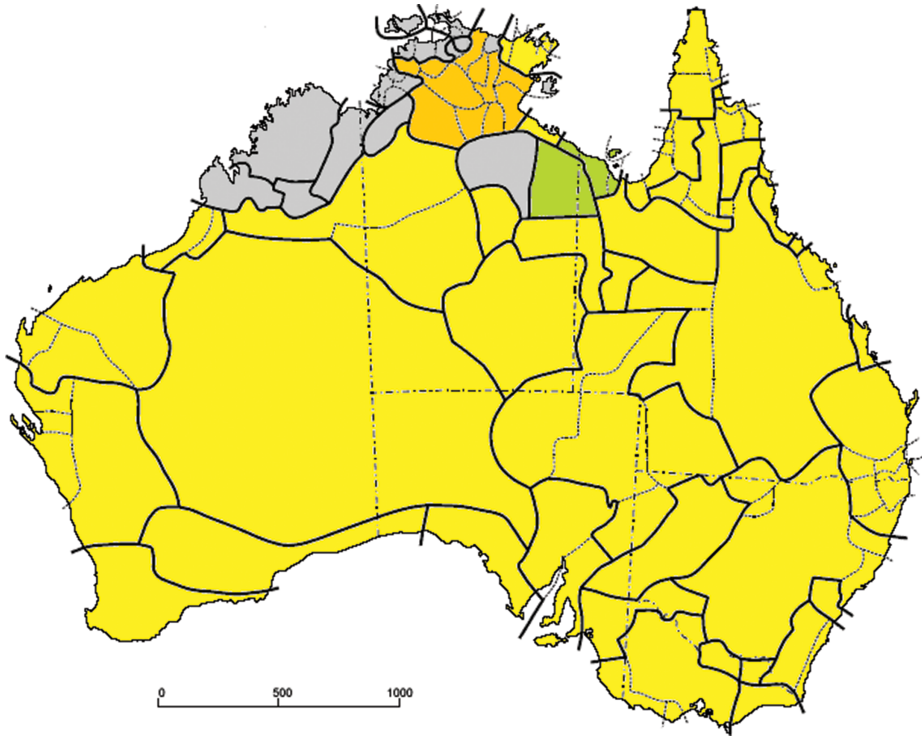
ATSI languages belong to four distinct groupings:

1. *Tasmanian*—the languages spoken in Tasmania are very poorly known, mostly from badly-transcribed wordlists. Almost nothing about the morpho-syntax of the languages can be gleaned from the existing sources (Crowley and Dixon 1981), so they will be excluded from this survey;
2. *Eastern Torres Strait*—the Meriam Mer language spoken on the eastern islands in the Torres Strait (between Australia and Papua New Guinea) is a Papuan language related to those of the Fly River delta (see Piper 1989). It will be excluded from this survey;
3. *Pama-Nyungan*—languages spoken across the southern two-thirds of the continent, from Western Torres Strait to the south-west of Western Australia, and including the Yolngu group of north-east Arnhemland, form a single genetic family (named for the word for ‘person’ in the far north-east, *pama*, and far south-west, *nyungar*). Low-level subgroupings of Pama-Nyungan are well established but the detailed higher-level classification of the family is ongoing and not yet finalised (see Bouckaert, Bownern, and Atkinson 2018; Miceli 2015); and
4. *non-Pama-Nyungan*—this is a cover term for around 25 other genetic families spoken in the far north (‘Top End’) of Australia through the Kimberley, Daly and Arnhemland regions of Western Australia and the Northern Territory. It is unclear whether there are deeper relationships between these families and/or with Pama-Nyungan (Evans 2003a).

Groups 3 and 4 will be henceforth referred to as Australian Aboriginal Languages (AALs) with data from them informing the typological, areal, and comparative survey in this paper. Map 1 shows the genetic classification picture as it is currently known.

Traditionally, Australian Indigenous people lived up in highly multi-lingual environments, with exogamous marriage systems promoting the use and learning of several AALs by individual community members (Rumsey 2018). A consequence of this is the existence of areal phenomena in phonology, morphology, and syntax that cut across the genetic groupings outlined above, such as switch-reference (Austin 1981b), pronominal agreement (Blake 1977), and nominative-accusative morpho-syntax (Dench 1982). We will show that applicatives are also areally distributed.

Currently, only about 10 languages remain in daily use with vibrant speaker communities and being learned by children as a home language. Of the remainder, around 150 are endangered to varying degrees, with small numbers of older speakers and not being passed on to children. The remaining languages are categorised as sleeping and have no-one who learned them as children, though some partial knowledge may remain. A large number of revitalisation projects are under way, especially in south-eastern Australia, some of which are recognised and supported by the State and Federal governments and employed in various ways in education (see Lee and Obata 2010; Marmion, Obata and Troy 2014)



Map 1: Pama-Nyungan (yellow) and non-Pama-Nyungan groups. (from Wikipedia)

2 Data sources

The available information about AALs varies widely, from detailed grammatical, lexical and textual analyses for a small number of languages, to sketch studies, mostly covering lexical and basic morphological material, for many others⁵. For very many languages spoken in the areas of first colonisation (New South Wales, southern Queensland, southern South Wales, and Victoria) very little is known about their morpho-syntax, with the available descriptions often coming from semi-speakers or rememberers recorded in the 1970s or 1980s. Researchers at that time also tended to pay more attention to phenomena such as case-marking and cross-clausal coreference, and ignored or were unaware of constructions impacting on argument coding such as causatives and applicatives. This means that a typological survey such as this one is necessarily limited by the available descriptions and must be far from exhaustive or conclusive.

⁵ For sources see <https://collection.aiatsis.gov.au/austlang/search> (accessed 2022-10-31)

3 Morpho-syntax

Most AALs make a fundamental distinction in their lexical categorisation between roots which are nominal (covering what would be nouns and adjectives in other more familiar languages) and those which are verbal (with a frequent distinction, particularly in Pama-Nyungan, between independent and dependent verb word forms). Most languages show fairly transparent agglutinative morphology (though fusional paradigms are often found for pronouns, and some verbs), with case typically encoded on nominals and tense-aspect-mood encoded on verbals. PN morphology is typically dependent-marking or double-marking (in the sense of Nichols 1986), while NPN languages are generally head-marking. Pama-Nyungan languages are entirely suffixing in their morphology, while non-Pama-Nyungan languages show both suffixing and prefixing, with prefixes on nominals often marking gender categorisation, and prefixes on verbals marking pronominal arguments (and hence being head-marking). Some non-Pama-Nyungan languages allow nominal incorporation of arguments into verbs (with or without the form of the incorporated nominal being different from its free-standing citation form) and are thus sometimes referred to as “polysynthetic”.

AALs typically make a strict distinction in verbal roots between those that are intransitive and take a single argument, and those that are transitive and take two arguments (Dixon 1980: 378; Blake 1987: 12). It is generally a simple matter to determine the transitivity of any lexical verbal. Typologists refer to the single argument of an intransitive verbal as S, the agent-like argument of a transitive verbal as A, and the non-agent second argument as P.

In most AALs that express nominal case, the morphological encoding operates on a split-ergative basis, with some nominals distinguishing nominative-accusative (S/A versus P) from ergative-absolutive (A versus S/P) and/or three-way (each of S, A, and P having separate forms), typically determined by the category (pronoun versus noun) and inherent lexical content of the inflected nominal (at least some pronouns being nominative-accusative, and some human or animate nominals being three-way or ergative-absolutive). Syntactically, cross-clausal coreference in both co-ordination and dependent clause constructions typically operates on an entirely nominative-accusative basis, with the S/A in one clause necessarily being understood as coreferential with the S/A in the linked clause (i.e. the cross-clausal pivot is S/A). In a very small number of syntactically ergative languages (Dyirbal, Yidiny, Kalkatungu, Bandjalang) cross-clausal coreference works in terms of an ergative-absolutive pivot (with sharing of S/P between the clauses).

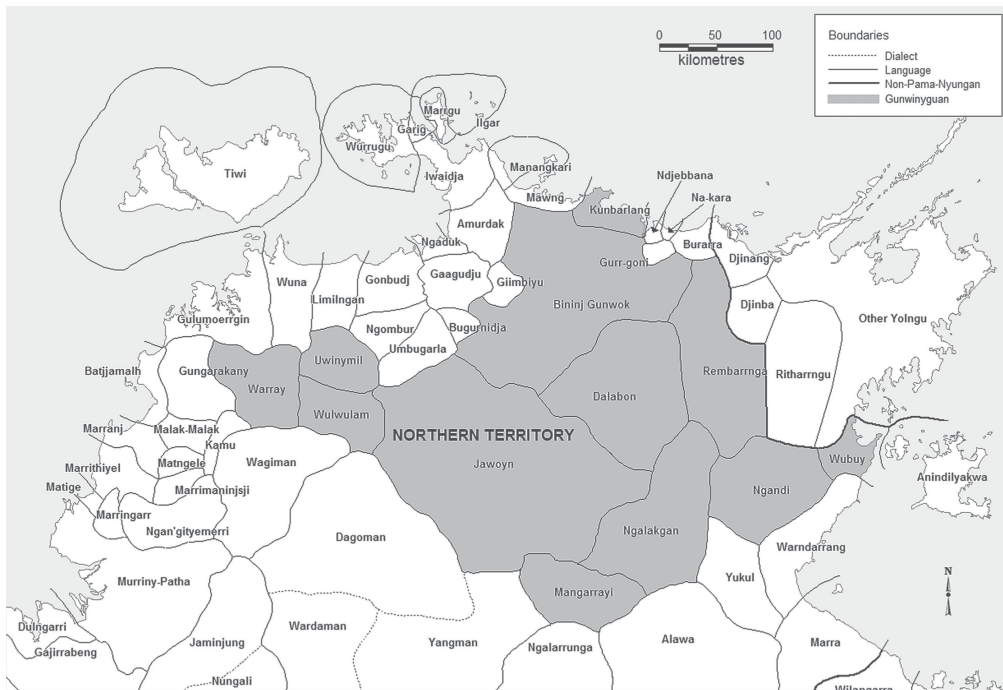
4 Non-Pama-Nyungan applicatives

Applicative constructions are found in some non-Pama-Nyungan languages, but are generally absent from most of the available descriptions:

- (i) languages without applicatives: Nakkara (Eather 1990), Mawng (Singer 2016: 28), Jaminjung-Ngaliwurru (Schultze-Bernd 2000: 84),⁶ Wardaman (Merlan 1994: 206), Alawa (Sharpe 1972), and Gaagudju (Harvey 2003);
- (ii) languages with applicatives: Gunwinyguan (§ 4.1), Bardi (§ 4.2), Daly (§ 4.3), and Wambaya (§ 4.4).

4.1 Gunwinyguan

The Gunwinyguan family is spoken in central Arnhemland and comprises 14 languages (some with local dialect variation). Map 2 (from Horrack 2018) shows their approximate locations.



Map 2: The Gunwinyguan family and neighbouring languages.

This family has the best descriptions of applicative constructions in Australia, with available details on Bininj Gun-wok (Evans 2003b), Dalabon (Ponsonnet 2021), Wubuy

⁶ But note that “verbs of different valency, combined with the same coverb, often fulfil the same function as applicative markers, causativisers, and other valency-changing morphology in other languages” (ibid.).

(Horrack 2018), Rembarnga (McKay 2011, Saulwick 2003), Ngalakgan (Merlan 1983; she calls the language Ngalakan), Ngandi (Heath 1978), and Mangarayi (Merlan 1982).

Gunwinyguan shows two types of applicatives, both marked by prefixes to the base verb, which may be either intransitive or transitive:

- (i) a benefactive-malefactive marked by *marne-* in Bininj Gunwok (Evans 2003b: 427–432), *marnu-* in Dalabon (Ponsonnet 2021: 122) and by *pak-* in Rembarnga (McKay 2011: 261–282; Saulwick 2003: 208–226), with cognates in Ngalakgan (Merlan 1983: 47) and Ngandi (Heath 1978: 81);
- (ii) a comitative-locative marked by *yi-* in Bininj Gunwok (Evans 2003b: 432–437), and *ye-* in Dalabon (Ponsonnet 2021: 129). There are two different comitative prefixes *yi-* and *re-* in Rembarnga (Saulwick 2003: 227–236; McKay 2011: 151–154).

Ponsonnet (2021: 128) explains that in Dalabon the benefactive-malefactive *marnu-* increases the base verb arguments by one, adding an animate P (with a base transitive P surfacing as a second object, not indexed on the verb):

VINTR	S		
VINTR+BEN.APPL	A	P [animate]	
VTR	A		P
VTR+BEN.APPL	A	P [animate]	P2

The applied P is understood as the recipient of benefactive transfer ('give to') as in (1), or the source of malefactive transfer ('remove from') as in (2). However, depending on the base verb, the applied argument "can also be an emotional stimuli (3), an addressee (4), a goal or location (5), or a possessor (6)" (Ponsonnet 2021: 129). Its person and number is encoded in the verb agreement prefix which references A and P in portmanteau.

- (1) *byunrul yila-h-marnu-yidinja-ninj-wurd*
 funeral 1PL.EXCL>3-REAL-APPL-have-PI-DIM
 'We had a small funeral for her.' (Ponsonnet 2021: ex 6)
- (2) *ngorr bula-h-marnu-ngu-yan*
 1PL.INCL 3PL>1-REAL-APPL-eat-FUT
 'They will eat (it) on us.' (Ponsonnet 2021: ex 7)
- (3) *kardu bula-h-marnu-djong-m-inj*
 maybe 3PL>3SG-REAL-APPL-fear-INCH-PP
 'Maybe they were afraid of them.' (Ponsonnet 2021: ex 8)

- (4) *bulu ka-h-marnu-yenjenjdju-ng*
 3PL 3SG>3-REAL-APPL-talk.RDP-PRS
 ‘He talks to them.’ (Ponsonnet 2021: ex 4)
- (5) *buka-h-marnu-bo-ninj darnkih*
 3SG>3SG-REAL-APPL-go-PI close
 ‘He was coming close to him.’ (Ponsonnet 2021: ex 9)
- (6) *dja-h-marnu-labbarl-n-iyen*
 1SG>2SG-REAL-APPL-pond-see-FUT
 ‘I will see your pond.’ (Ponsonnet 2021: ex 10)

For Wubuy, Horrack (2018: 7, 123) prefers to call the corresponding *aG-* ~ *waaG-* prefix an “affectee applicative” because of the wide range of semantics associated with it, namely “beneficiary, adverse beneficiary (i.e., who is hurt rather than helped), source (as in ‘take from’, usually associated with adverse beneficiary), addressee (‘to shout at’), owner or possessor (of implicit direct object), and object of emotion (‘be afraid of’, ‘be suspicious of’, etc.)” (Horrack 2018: 135, quoting Heath 1984: 380). These more-or-less overlap with the semantics of the applied argument for Dalabon *marnu-*. Unlike Dalabon, however, the introduced argument (which triggers P verb agreement) bears an overt case marker, typically allative-dative *-wuy* ~ *-guy* but also purposive *-yungguyung*, ablative *-wala*, or genitive *-yinyung*. Consider these examples:

- (7) *ngarra-mani-nyung nguna-a-jaalibu-mana na-doctor-wuy*
 F-woman-HUM.SG 3F.SG>3M.SG-APPL-cough-PRS M-doctor-DAT
 ‘The woman coughs for the doctor.’ (Horrack 2018: ex 1-8)
- (8) *anubani ngayawi-wuy ngambi-i-gawanggi-na*
 that.N.ANAPH 1SG.PRO-ALL 3PL>1SG-APPL-listen-PRS
 ‘They listen to me.’ (Horrack 2018: ex 4-28)
- (9) *nguna-a-gamaji na-walyi-nyung-gala*
 3F.SG>3M.SG-APPL-thieve.PC M-man-HUM.SG-ABL
 ‘She was thieving from the man (3M.SG)’ (Horrack 2018: ex 4-31)
- (10) *ngarrani-i-ngawii-yn ngagurra-yungguyung*
 3M.SG>1PL-APPL-die-PP 1INCL.PL.OBL-PURP
 ‘He died for us.’ (Horrack 2018: ex 4-36)

Note that the applied P “with transitive and ditransitive inputs appears to have an interpretation of alienable external possession where the affectedness of the introduced argument is being emphasised” (Horrack 2018: 143).

The comitative-locative applicative in Gunwinyguan introduces an animate or inanimate P expressing a person or thing with which an action is carried out (including movement). Ponsonnet (2021: 130) gives the following Dalabon examples, showing both intransitive and transitive base verbs:

- (11) *Yila-h-ye-dudj-mu wulk-no*
 1PL.EXCL>3-REAL-APPL-return-PRS fat-FILL
 ‘We bring back some fat.’ (Ponsonnet 2021: 130 ex 11)

- (12) *Nunda njel ka-h-ye-ba-ng*
 this 1PL.EXCL 3SG>1-REAL-APPL-bite-PRS
 ‘This is to bite us with.’ (Ponsonnet 2021: 130 ex 12)

For Wubuy, Horrack (2018: 216) shows that the *aynji-* comitative prefix requires contact between the S or A of the base verb and the introduced applied argument, as in:

- (13) *ngi-ynji-ngama-a ngarra-ngarrugali warra-mijburraayung*
 F-APPL-swim-PC F.TOP-dugong PL-children
 ‘The dugong was swimming with the children.’
 (i.e. the children were sitting on the dugong’s back) (Horrack 2018: ex 6-17)

Horrack (2018: 216) notes further that “instead of the subject [of the transitive] being interpreted as carrying the comitative referent, the comitative referent is realised as primary object and is itself interpreted as carrying the argument that would have been the primary object of the underived verb”, as in (14):

- (14) *wunguna-aynji-yarrbu-mana ngarra-manum-baa warra-gujuju*
 3F.DU>3M.SG-COMIT-wash-PRS F-woman-DU PL-baby
na-walyi-nyung
 M-man-HUM.SG
 ‘The two women wash the babies with the man.’
 (i.e. the man is holding the babies and the two women wash the babies)
 (Horrack 2018: ex 6-24)

4.2 Bardi

Bardi is spoken in the Kimberley region of Western Australia and has two applicatives (both encoded by the verb suffix *-na* ~ *-ng*), described by Bown (2012: 488–495). One applicative can be added to a restricted set of intransitive verbs to create transitive verbs with idiosyncratic semantic relationships to the base verb; Bown (2012: 190)

cites just five instances: ‘go’ → ‘touch’, ‘visit’ → ‘help’, ‘come’ → ‘come out’, ‘collect’ → ‘collect’, ‘say’ → ‘leave’.

The second Bardi applicative is more productive and may appear with either intransitive or transitive roots, and promotes an adjunct goal, accompaniment, or instrument to be a direct P argument of the applied verb. Examples with an intransitive base verb are, firstly a goal:

- (15) *Wirr i-ny-jarrmi-ni-ng Iila-nim*
 rise 3-PST-rise-REM.PST-APPL2 dog-ERG
 ‘The dog jumped on him.’ (Bown 2012: ex 12.66)

and, secondly, an accompaniment:⁷

- (16) *Ngayoo-nim bard roowil nga-n-nya-na-ng birrii*
 1MIN-ERG off walk 1-TRZ-catch-REM.PST-APPL2 mother.ABS
 ‘I walked with my mother.’ (Bown 2012: ex 12.67b)

Transitive examples of applied goals and accompaniments are:⁸

- (17) *I-na-ng-ga-na-nga=moord.*
 3-TRZ-PST-bring-REM.PST-APPL2=1AUG.DOBJ
 ‘He brought us it.’ (Bown 2012: ex 12.65b)
- (18) *I-n-jala-ng=jarrngay.*
 3-TRZ-see-APPL2=1MIN.DOBJ
 ‘He saw me with [it].’ / ‘He saw it with [me].’ (Bown 2012: ex 12.73)

The instrumental applicative appears only to occur with transitive base verbs and to result in a ditransitive with two P-marked direct arguments:

- (19) *I-na-m-boo-ng-gal ginyinggin irrol.*
 3-TRZ-PST-hit-APPL-REC.PST 3MIN-EXCL spear.ABS
 ‘He hit me with that very spear.’ (Bown 2012: ex 12.72)

⁷ Some Pama-Nyungan languages have a number contrast between MINimal and unit AUGmented where first person dual inclusive (1/2 person) is treated as minimal (even though numerically it is not singular). McKay (1979) originated this analysis for Australian languages.

⁸ Example (18) is ambiguous as to whether the first-person minimal agreement is with the base P, or with the applied (unexpressed third person) P.

Alternatively, the applied instrument can be marked with instrumental case and thus appear to be an adjunct, not a P, even though the verb carries an applicative suffix, as in (20):

- (20) *Baal-nga i-ng-orr-on-di-ni-ng=irr:*
 bark-INS 3-PST-AUG-TRZ-cover-REM.PST-APPL=3A.DOBJ
 ‘They covered them with bark.’ (Bowern 2012: ex 12.75)

This is thus an instance of an X-applicative construction.

4.3 Daly languages

The Murrinhpatha language spoken in the Daly region of the Northern Territory (see Map 2, west of Gunwinyguan) has an applicative construction coded by the verb prefix *-ma-*, that is highly unusual typologically in that it encodes a source or malefactive semantics (and never a benefactive, or the cross-linguistically more usual locative/comitative or instrument). Nordlinger (2019) gives the following examples of source semantics with an intransitive base verb:

- (21) *ngem-nhi-ma-nham*
 1SG.SBJ.POKE:RR(22).NFUT-2SG.OBJ-APPL-fear
 ‘I’m afraid of you.’ (Nordlinger 2019: ex 42c)

Nordlinger (2019: 416) notes that “the majority of applicative examples in the corpus involve base transitive verbs which entail transfer of possession or location of a theme argument, with the animate source represented as the applicative object”; examples are:

- (22) *nganam-nhi-ma-kut*
 1SG.SBJ.BE(4):NFUT-2SG.OBJ-APPL-collect
 ‘I collected (the money) from you.’ (Nordlinger 2019: ex 2)
- (23) *bim-pun-ma-yepup*
 1SG.SBJ.HEAR(16):NFUT-3PL.OBJ-APPL-listen
 ‘I heard (the story) from them.’ (Nordlinger 2019: ex 41d)

Note that the applied verb can take a reflexive-reciprocal derivation (marked by prefix *-nu*) which relates to the applied P, as in (cf. (21) above):

- (24) *them-nu-ma-nham*
 1INCL.SBJ.POKE:NFUT-RR-APPL-fear
 ‘We’re (INCL) frightened of each other.’ (Nordlinger 2019: ex 45)

Other Daly languages have applicatives, but with different semantics. According to Reid (1990, 2000) Ngan'gityemerri has a comitative applicative marked by the prefix *-mi-* that promotes an adjunct to a P role, as in (25):

- (25) *gaganiny-nyi-mi-wap*
 1SG.SBJ.GO.PFV-2SG.OBJ-APPL-sit
 'I sat down with you.' (quoted in Nordlinger 2019: ex 54b)

Marrithiyel (Green 1989) has an applicative marked by the prefix *-mu-* that is similar to Murrinhpatha in expressing an applied P with source semantics:

- (26) *wiyan ngurr-inj-mu-duk-wa*
 tobacco 1SG.SBJ.IRR.RR-2SG.OBJ-APPL-remove-FUT
 'I'll take your tobacco off you.' (Green 1989: ex 5-173b)

According to Nordlinger (2019), the Murrinhpatha prefix has arisen from grammaticisation of *ma* meaning 'hand', while Ngan'gityemerri *-mi-* derives diachronically from 'eye', and Marrithiyel *-mu-* comes from 'hand'. These are the only instances of applicatives apparently arising from body parts in Australia.

4.4 Wambaya

Spoken in the Barkly region of the Northern Territory, this language has an applicative suffix *-(ba)bu* which, according to Nordlinger (1998: 169), occurs with intransitive base verbs and promotes a NP of accompaniment to object, deriving a transitive verb. This suffix expresses an anti-benefactive sense, usually translated into English with 'away', as in:

- (27) *Dingbari-j-babu ngiy-a gayangga wardangarringa-ni.*
 fly.off-TH-APPL 3SG.NM.A-PST high.moon.husband-LOC
 'The moon flew off with (the sun's baby) up (into the sky).' (Nordlinger 1998: ex 6-50)
- (28) *Mawula-j-babu ngiy-a ganjimi.*
 play-TH-APPL 3SG.NM.A-PST finish.NFUT
 'She played all her money away.' (Nordlinger 1998: ex 6-51)
- (29) *Ngarri balamurru gin-a bard-babu.*
 1SG.POSS.I.ACC spear.IV.ACC 3M.SG.A-PST run-APPL
 'He ran off with my spear.' (Nordlinger 1998: ex 6-52)

5 Pama-Nyungan applicatives

A limited number of Pama-Nyungan languages spoken in central, northern, and eastern Australia have applicative constructions marked by a verb suffix, typically expressing comitative or locative semantics and typically only attached to a subset of intransitive base verbs. Only a handful have applicatives of transitive base verbs. A couple of instances of applicative lookalikes are found in this family.

5.1 Karnic

The Karnic group was traditionally spoken from northern South Australia and western New South Wales to western Queensland and comprises several subgroups (Bowern 2001). The Central Karnic subgroup comprises Diyari, Ngamini, Yaluyandi, Yandruwandha and Yawarrawarka. They all show applicatives coded by a suffix (Diyari *-lka-*, Ngamini *-ka-*, Yaluyandi *-kalka-*). In Diyari (Austin 1981a, 2021) intransitive motion and stance verbs can be transitivised by the addition of the suffix *-lka* to introduce a P which is held by or is located with the A argument (the S of the base verb), as in (30):

- (30) *Nhulu kanku-yali pirta thika-lka-yi*
 3NF.SG.ERG boy-ERG stick.ACC return-APPL-PRS
 ‘The boy is taking a stick back’ (Austin 2021: ex 368)

When the P is animate then the A is understood as causing and directing the motion or rest and is simultaneously moving or at rest, as in:

- (31) *Ngathu tyipi~tyipi thika-lka-rna wara-yi*
 1SG.ERG RDP~sheep.ACC return-APPL-PTCP AUX-PRS
 ‘I drove the sheep back’ (Austin 2021: ex 370)

- (32) *Nhulu kinthala tharka-lka-yi*
 3NF.SG.ERG dog.ACC stand-APPL-PRS
 ‘He is standing with (his) dog (holding it)’ (Austin 2021: ex 371)

The verb *ngama-lka-* ‘sit-APPL-’ has become conventionalised as a transitive verb of possession and can be used when there is no physical contact between the A possessor and the P possessee, as in:

- (33) *Yundru karna tharla ngama-lka-yi*
 2SG.ERG person name.ACC sit-APPL-PRS
 ‘Do you have an Aboriginal name?’ (Austin 2021: ex 327)

- (34) *Yundru kaku ngama-lka-yi*
 2SG.ERG older.sister.ACC sit-APPL-PRS
 ‘Do you have an older sister?’ (Austin 2021: ex 328)

With a limited number of base verbs that do not express motion or stance, *-lka-* derives a transitive verb with a more affective meaning, that is, the P is understood as affected by and undergoing the action denoted by the verb, as in:

- (35) *Thalara-li ngalinha kurda-lka-yi*
 rain-ERG 1DU.EXCL.ACC fall-APPL-PRS
 ‘The rain is pouring on us’ (Austin 2021: ex 373)

- (36) *Paya-li nhinha kuna-lka-rna wara-yi*
 bird-ERG 3NF.SG.ACC shit-APPL-PTCP AUX-PRS
 ‘The birds shat on him’ (Austin 2021: Text 1 line 50)

Note that verbs of communication or sensation cannot take the applicative (unlike in Gunwinyguan, discussed in § 4.1).

Central Karnic also has a D-applicative construction which is found with transitive base verbs to express action done for the benefit of someone other than the A of the base verb. This is encoded with the suffix *-pa-* (in Diyari,⁹ Ngamini, Yarluyandi) or *-na-* (in Yandruwandha, Yawarrawarka) which also occurs as a causativiser of some intransitive verbs. This is not a benefactive P-applicative, however, as the beneficiary is in the dative case and is not a direct argument of the resulting verb (we gloss it as ALTruistic). Some Diyari examples are:

- (37) *Ngathu kupa~kupa nhayi~nhayi-ipa-rna wanthi-yi walpala-ya*
 1SG.ERG RDP~child.ACC RDP~see-ALT-PTCP AUX-PRS white.man-DAT
 ‘I looked after the children for the white man.’ (Austin 2021: ex 58)

Note that *-pa-* can be used with an applicativised base verb, as in:

- (38) *Minha-nhi ngayani nyarnikuti thika-lka-ipa-rnanthu nhangkarni*
 what-LOC 1PL.EXCL.ERG goat.ACC return-APPL-ALT-IMPLDS 3F.SG.DAT
 ‘Why must we bring the goats back for her?’ (Austin 2021: ex 70)

Arabana-Wangkanguru belongs to another subgroup of Karnic and has been described by Hercus (1990: 149–152) as possessing an affix *-la-* which reveals a split within intrans-

⁹ In Diyari this affix neutralises the preceding base verb final vowel to *i*—in Austin (1981a) it is notated as *-ipa-*. There is an alternative synonymous affix *-iyirpa-* found in Diyari only.

sitive base verbs: for most it is a causativiser (where the P is inanimate or a non-controlling animate), while for five volitional intransitive verbs it has an applied pattern.

<i>thudni-</i>	'to cry'	<i>thudni-la-</i>	'to cry over, mourn'
<i>wiya-</i>	'to laugh'	<i>wiya-la-</i>	'to mock, deride, laugh at'
<i>pankipanki-</i>	'to be pleased'	<i>pankipanki-la-</i>	'to be pleased with'
<i>yanhi-</i>	'to talk'	<i>yanhi-la-</i>	'to tell'
<i>yirji-</i>	'to move'	<i>yirji-la-</i>	'to work for (someone)'

An example is:

- (39) *Arluwa-kari-ri wiya~wiya-la-thira*
 child-PL-ERG RDP~laugh-APPL-PUNC
 'The children laugh at (him).' (Hercus 1990: ex 351)

As we saw for Central Karnic, the same affix can be added to transitive verbs to indicate action done for the benefit of someone other than the A; it is a D-applicative and does not promote the beneficiary to direct argument status. An example is:

- (40) *Unkunha punga karra-l-ta.*
 2SG.DAT hut.ABS tie-APPL-PRS
 '(He) is fixing your hut for you.' (Hercus 1990: ex 358)

Notice that, if the base verb has a negative effect reading, the dative argument will be understood as malefactive, as in:

- (41) *Anthunha arluwa pirda-la-yirra*
 1SG.DAT child.ABS hit-APPL-PUNC
 'They are hitting my child on me.' (Hercus 1990: ex 359)

The Northern Karnic group comprises several languages, the best known of which is Pit-ta-Pitta, once spoken in western Queensland, and described by Blake (1979a). Here there is a *-la-* suffix which creates causatives of most intransitive verbs but has an applicative function with just four intransitives in the corpus that have volitional agent-like subjects.

Applied *-la-* (S = A)

<i>mirnti-</i>	'to play'	<i>mirnti-la-</i>	'to play with'
<i>tiwa-</i>	'to be jealous'	<i>tiwa-la-</i>	'to be jealous of'
<i>wapa-</i>	'to look for'	<i>wapa-la-</i>	'to look for'
<i>wiya-</i>	'to laugh'	<i>wiya-la-</i>	'to laugh at'

This *-la-* affix can be used with transitive verbs to signal the involvement of a benefactive (or malefactive if the predicate is aversive); the beneficiary NP is advanced to P and is case-marked like a regular transitive object (case-marking on the base transitive object is unaffected, resulting in a ditransitive construction). Thus, contrast the following pair:

- (42) *Nhan-pa-ka karnta-ka yanthurru-nha marri-linga nganyari-nha*
 3F.SG-NOM-here go-PST food-ACC get-PURP 1SG.DAT-ACC
 ‘She went to get food for me.’ (Blake 1979a: ex 60)

- (43) *Nhan-pa-ka karnta-ka yanthurru-nha marri-la-linga nganya*
 3F.SG-NOM-here go-PST food-ACC get-APPL-PURP 1SG.ACC
 ‘She went to get food for me.’ (Blake 1979a: ex 61)

A malefactive example is:

- (44) *Thithi-nha nganya pithi-la-ya*
 older.brother-ACC 1SG.ACC hit-APPL-PRS
 ‘(He) hit my older brother on me.’ (Blake 1979a: ex 64)

5.2 Kalkatungu and Yalarnnga

Kalkatungu, formerly spoken in Western Queensland north of Karnic had two applicative constructions, one encoded by the suffix *-(ny)tjama(yi)-* and one with the suffix *-nti-* (Blake 1979b). The first of these can be added to intransitive verbs or transitive verbs to indicate that a goal is a P argument of the resulting verb. Thus from *rlunga-* ‘to cry’ we derive *rlunga-nyjama-* ‘to cry for’ which can then be detransitivised by the reciprocal-reflexive suffix, as in:

- (45) *Rlunga-nthithi-tjama-ti malthanha*
 cry-PL-APPL-RR many
 ‘They are all crying for one another.’ (Blake 1979b: ex 5.44)

With transitive roots, *-(ny)tjama(yi)-* indicates a beneficiary that is encoded as a P argument of the resulting ditransitive verb, as in:

- (46) *Ngai-tji ngalhu-yu ngai karri-nyjamayi kunti*
 1SG-DAT daughter-ERG 1SG.ABS clean-APPL house.ABS
 ‘My daughter cleaned the house for me.’ (Blake 1979b: ex 5.47b)

When the base verb involves a negative effect then the applied P argument is understood in a malefactive sense, as in:

- (47) *Tjipa-yi ngai nhau-thu nhitha-nytjamayi maa nhungu*
 this-ERG 1SG.ABS child-ERG steal-APPL food.ABS hence
 'This child stole the food from here on me.' (Blake 1979b: ex 5.46)

The second applicative *-nti-* can be added to intransitive roots of stance or motion to derive a transitive verb where S corresponds to A and a locative/comitative P is added.

<i>kapani-</i>	'to go hunting'	<i>kananinti-</i>	'to go hunting (something)'
<i>rna-</i>	'to stand'	<i>rnanti-</i>	'to stand with/on (something)'
<i>rnu-</i>	'to lie'	<i>rnunti-</i>	'to lie with/on (something)'
<i>thuna-</i>	'to run'	<i>thunanti-</i>	'to run with (something)'
<i>wani-</i>	'to play'	<i>waninti-</i>	'to play with (something), play (a part in a corroborree'
<i>wanti-</i>	'to follow'	<i>wantinti-</i>	'to follow (something)'
<i>yu-</i>	'to go up, climb'	<i>yunti-</i>	'to climb (something), mount (a horse)'

Sentence examples where the P is a location are:

- (48) *Thuku-thu rnu-ntiyi kulapuru*
 dog-ERG lie-APPL blanket.ABS
 'The dog lay on the blanket.' (Blake 1979b: ex 5.35b)

- (49) *Nga-thu tjaa rnanya rntia nguu rna-nti*
 1SG-ERG here see.PST stone REL stand-APPL
 'I saw the stone he stood on.' (Blake 1979b: ex 5.38)

With transitive verbs, the applicative indicates that an oblique instrument or cause has been promoted to P function, creating a ditransitive construction. An instrumental applicative example is:

- (50) *Ntia nga-thu maa mani-ntiyi*
 money.ABS 1SG-ERG food.ABS get-APPL
 'I got food with the money.' (Blake 1979b: ex. 5.31b)

An example of a cause applicative is:

- (51) *Lhaji-manti tjaa marapai tjipa-yi iti-yi*
 hit-APPL here woman.ABS this-ERG man-ERG
 'This man hit (him) because of the woman here.' (Blake 1979b: ex 5.39)

Blake mentions the use of *-nti-* with transitive base verbs to add a locative argument as P, but gives no relevant examples.

The neighbouring, but apparently unrelated, Yalarnnga language also has an applicative *-nti-*, briefly mentioned in the sketch of Breen and Blake (2007: 47) that is added to intransitive motion and location verbs deriving a transitive stem whose P has a locative sense. An example is:

- (52) *Mangurru-yu tjala ngu-nti-ma tjala kulapurru*
 dog-ERG this lie-APPL-PRS this.ABS blanket.ABS
 ‘The dog is lying on the blanket.’ (Breen and Blake 2007: ex 3-191b)

The description does not mention whether this affix can be added to transitive base verbs.

5.3 Maric

East of Kalkatungu and Karnic we find the Maric group of languages, spoken throughout central and southern Queensland where there are a limited number of applicatives derived from intransitive bases with a volitional agent-like S subject (often verbs of motion or location). The P of the resulting transitive is understood as a location, comitative or goal. Breen (1981: 319) gives the following examples from Margany and Gungabula:

- | | | | |
|-----------------|-------------|--------------------|-----------------|
| <i>gambira-</i> | ‘to return’ | <i>gambiny-ma-</i> | ‘to bring back’ |
| <i>ngandhi-</i> | ‘to talk’ | <i>ngandhi-ma-</i> | ‘to talk to’ |
| <i>dharti-</i> | ‘to like’ | <i>dharti-ma-</i> | ‘to like’ |

Holmer (1983: 186-187) has a slightly longer list for the closely related Gunggari:

- | | | | |
|----------------|---------------------------|-------------------|-------------------------|
| <i>ngalga-</i> | ‘to speak’ | <i>ngalga-ma-</i> | ‘to speak to’ |
| <i>binda-</i> | ‘to sit’ | <i>binda-ma</i> | ‘to sit with, to nurse’ |
| <i>wari-</i> | ‘to think’ | <i>wari-l-ma-</i> | ‘to think about’ |
| <i>warda-</i> | ‘to go away’ | <i>warda-ma-</i> | ‘to go away from’ |
| <i>gadi-</i> | ‘to lie, tell falsehoods’ | <i>gadi-ma-</i> | ‘to lie to’ |
| <i>warra-</i> | ‘to play’ | <i>warra-ma-</i> | ‘to play with’ |

In the closely related Wiri and Biri the corresponding affix is *-ri-*, as in (items marked [H] are from Holmer 1983: 303, those marked [B] are from Beale 1974: 24–25):

<i>wadja-</i>	‘to go’	<i>wadja-ri-</i>	‘to go away with, take’ [B, H]
<i>yanhi-</i>	‘to go, come’	<i>yanhi-ri-</i>	‘to bring, send’ [B, H]
<i>dana-</i>	‘to sit’	<i>dana-ri-</i>	‘to sit with’ [H]
<i>wuna-</i>	‘to lie’	<i>wuna-ri-</i>	‘to sleep with’ [H]

A sentence example is:

- (53) *Gayurrba-nggu dana-ri-ngala yalu*
 woman-ERG sit-APPL-PRS baby.ABS
 ‘The woman is sitting with (nursing) the baby.’ (Holmer 1983: 304)

The related Gangulu has *-ni-* or *-yi-*, depending on dialect (Holmer 1983: 273) with the following instances recorded:

<i>burra-</i>	‘to get away’	<i>burra-ni-</i>	‘to get away with’
<i>yani-</i>	‘to go’	<i>yani-ni-</i>	‘to go with’
<i>wuba-</i>	‘to come’	<i>wuba-yi-</i>	‘to come with, to bring’
<i>gandi-</i>	‘to come’	<i>gandi-yi-</i>	‘to come with, to bring’
<i>duni-</i>	‘to say’	<i>duni-yi-</i>	‘to say to, to tell’

Maric languages lack applicatives of transitive verbs.

5.4 Paman

Several members of the Paman language group, spoken north of Maric in far north Queensland, have applicatives based on volitional intransitive verbs, mostly expressing stance and location but also including ‘laugh’ and ‘cry’, where the resulting P expresses a location or comitative semantic role. Descriptions illustrating this are Kuuk Thayore (Gaby 2006: 402–409), Wik-Mungkan (Kilham et al. 1986:407), and Yir-Yoront (Alpher 1991: 48). No Paman language has applicatives of transitive base verbs.

5.5 Waka-Waka and Goreng-Goreng

According to Holmer (1983: 8, 22, 94) languages of the Waka-Waka and Goreng-Goreng groups spoken on the south-east Queensland coast have an applicative *-ndi-* or *-ri-* added only to a sub-set of intransitive verb bases, as in the following Goreng-Goreng examples (sentence usage instances are missing):

<i>bi-</i>	'to go'	<i>bi-ndi-</i>	'to take'
<i>balba-</i>	'to stand'	<i>belbe-ndi-</i>	'to stand with'
<i>mai-</i>	'to run'	<i>mai-ndi-</i>	'to run after'
<i>ngina-</i>	'to sit'	<i>ngine-ndi-</i>	'to sit with'
<i>yunma-</i>	'to lie'	<i>yunme-ndi-</i>	'to sleep with, cohabit with'

From Holmer's fragmentary data, it seems that these affixes cannot be added to transitive base verbs.

5.6 Ngiyambaa

Ngiyambaa (Donaldson 1980: 163), once spoken in central New South Wales, south of Maric, also has two transitivity patterns: most intransitive verbs take the causative affix *-ma-l*, however there are just two verbs which take the affix *-ba-l*, namely *ginda-y* 'to laugh' and *yunga-y* 'to cry', which follow an applicative pattern, where the transitive P is understood as the goal of the action:

<i>ginda-y</i>	'to laugh'	<i>ginda-y-ba-l</i>	'to laugh at'
<i>yunga-y</i>	'to cry'	<i>yunga-y-ba-l</i>	'to cry at'

An example of such an applicative is:

- (54) *Burraa-dhu-nuu yunga-y-ba-ra*
 child-ERG-2SG.ACC cry-CM-APPL-PRS
 'The child is crying at you.' (Donaldson 1980: ex 6-19)

There is no applicative construction for transitive base verbs. Note that languages adjacent to Ngiyambaa—such as Baagandji to the west (Hercus 1982), Wangkumara to the north (Robertson 1985) and Yuwaalaraay-Gamilaraay to the north-east (Williams 1980)—show no sign of applicativisation and have just one transitivity pattern, namely the causative.

5.7 Yidiny

This language was spoken in northern Queensland north-east of Maric and has an affix *-nga-* which Dixon (1977: 304) labels "comitative". It subdivides intransitive verbs into those which it causativises and those which it applicativises, taking a P with a locative or comitative semantics. The reported sub-set of applicativising intransitives is:

<i>djana-</i>	'to stand'	<i>djana-nga-</i>	'to stand with'
<i>nyina-</i>	'to sit'	<i>nyina-nga-</i>	'to sit with'
<i>badi-</i>	'to cry'	<i>badi-nga-</i>	'to cry for'
<i>mangga-</i>	'to laugh'	<i>mangga-nga-</i>	'to laugh at'

Compare the following examples:

- (55) *Waguudja bunyaa-y gali-ng*
 man.ABS woman-COMIT go-PRS
 'The man is going with the woman.' (Dixon 1977: ex 502)

- (56) *Wagudja-nggu bunya galii-nga-l*
 man-ERG woman.ABS go-APPL-PRS
 'The man is taking the woman.' (Dixon 1977: ex 503)

Yidiny also has constructions where *-nga-* is added to a transitive verb root—here it introduces a locative or instrumental element as P. Importantly, however, the transitive verb base must first be intransitivised by occurring in the antipassive construction where the base verb P nominal is placed in dative or locative case, the A becomes an S, and the verb takes an affix *-dji-*. So, from the following transitive clause:

- (57) *Bamaa-l djugi galbaan-da gundaa-l*
 man-ERG tree.ABS axe-INS cut-PST
 'The man cut the tree with an axe.' (Dixon 1977: ex 509)

We have the corresponding antipassive intransitive clause:

- (58) *Bama galbaan-da gundaa-dji-nyu djugii-l*
 man.ABS axe-INS cut-ANTIP-PST tree-LOC
 'The man cut the tree with an axe.' (Dixon 1977: ex 510)

Only now may the applicative *-nga-* be added to express the instrument in P function:

- (59) *Bamaa-l galban gundaa-dji-ngaa-l djugii-l*
 man-ERG axe.ABS cut-ANTIP-APPL-PST tree-LOC
 'The man cut the tree with an axe.' (Dixon 1977: ex 511)

It is clear that transitive base verbs can take the applicative *-nga-* but only when they have been first detransitivised and made into volitional intransitives. A variant of this strategy is also found in Dyirbal and Warrgamay (see § 5.7).

The Djabugay language is spoken immediately north of Yidiny and is apparently quite closely related. Here we find a single transitivising affix *-rri-* (Patz 1991: 283–284,

297), with a split for intransitive verbs of the same type observed above, i.e., causative for most verbs but applicative with volitional predicates with an agent-like S argument. Patz's description mentions:

<i>jungga-</i>	'to run'	<i>djungga-rri-</i>	'to run with'
<i>burra-</i>	'to fly'	<i>burra-rri-</i>	'to fly with'
<i>mangga-</i>	'to laugh'	<i>mangga-rri-</i>	'to laugh at'
<i>yarrn.ga-</i>	'to be afraid, dislike'	<i>yarrn.ga-rri-</i>	'to hate'

Note that *-rri-* cannot be added to transitive verb roots.

5.8 Dyirbal and Warrgamay

Dyirbal was spoken in north Queensland adjacent to Yidiny and Djabugay (see § 5.7) and has a single transitivity affix *-m(b)a-* that creates applied transitive stems from intransitive stance roots (plus *miyanday-* 'to laugh', Dixon, p.c.), as in:

- (60) *Balan djugumbil banggul yara-nggu nyinay-ma-n*
 she.ABS woman.ABS he.ERG man-ERG sit-APPL-NFUT
 'The man is sitting with the woman', 'The man is married to the woman' (Dixon 1972: ex 258)

- (61) *Balay djana-nggu bayi miyanday-ma-n*
 there 3PL-ERG he.ABS laugh-APPL-NFUT
 'They are laughing at the man there' (Dixon p.c.)

Dyirbal is like Yidiny (§ 5.7) in having an antipassive construction which detransitivises regular transitive clauses, creating an intransitive whose S corresponds to the transitive base verb A and whose dative corresponds to the base verb P, as in the following contrast:

- (62) *Bayi bargan banggul yara-nggu djurga-nyu*
 he.ABS wallaby.ABS he.ERG man-ERG spear-NFUT
 'The man is spearing the wallaby.' (Dixon 1972: ex 64)

- (63) *Bayi yara bagul bargan-gu djurga-na-nyu*
 he.ABS man.ABS he.DAT wallaby-DAT spear-ANTIP-NFUT
 'The man is spearing the wallaby.' (Dixon 1972: ex 68)

For transitive base verbs, *-m(b)a-* may be added to create an applicative construction where an instrument or locative has P function, but the erstwhile P of the base transi-

tive root must be inflected for dative case. Thus, contrast the following transitive construction with an instrument:

- (64) *Balan djugumbil banggul yara-nggu banggu yugu-nggu balga-n*
 she.ABS woman.ABS he.ERG man-ERG it.INS stick-INS hit-NFUT
 ‘The man is hitting the woman with a stick.’ (Dixon 1972: ex 242)

with its applicative counterpart:

- (65) *Bala yugu banggul yara-nggu balga-lma-n*
 it.ABS stick.ABS he.ERG man-ERG hit-APPL-NFUT
bagun djugumbil-gu
 she.DAT woman-DAT
 ‘The man is hitting the woman with a stick.’ (Dixon 1972: ex 253)

In the Mamu dialect, the applicative verb form required here is *balga-nay-mba-n* (Dixon 1972: 97), containing the antipassive affix (as in Yidiny, cf. (59) above). Antipassivisation is covert in other dialects, except for locative/comitative applicatives where the antipassive affix is obligatory before the applicative, as in:

- (66) *Bayi nyalngga banggun djugumbi-ru nyuga-nay-mba-n*
 he.ABS boy.ABS she.ERG woman-ERG grind-ANTIP-APPL-NFUT
bagum djububala-gu.
 it.DAT flour-DAT
 ‘The woman is grinding the flour with a boy beside her.’ (Dixon 1972: ex 265)

Again, we see that the applied affix can only be added to transitive verbs which have first been detransitivised by the antipassive to create volitional active intransitive verbs.

Warrgamay, spoken south of Dyirbal and not closely related to it, has applicatives marked by *-ma-* for motion and stance intransitive verbs, plus ‘laugh’ and ‘cry’ (Dixon 1981). The *-ma-* suffix can be added to transitive base verbs to create applicatives whose P expresses an instrument, however the base P must be placed in dative case, as we saw for Dyirbal above. This suggests that this language also has a covert antipassive that applies to create a derived intransitive before the applicative can be added.

6 Conclusions

This chapter surveys various types of applicative constructions found in Australian Aboriginal languages of the Pama-Nyungan and non-Pama-Nyungan groups. Applicatives are found in a number of languages, but unfortunately the available data in descrip-

tions tends to be scanty, and many of the relevant languages are no longer spoken. Geographically, applicatives only occur in central and northern languages of South Australia, Northern Territory and Western Australia, plus the whole of Queensland. No language in Central or Western Australia below the Kimberley region (including those which are well described) has applicative constructions. Only one example is found in New South Wales (see § 5.6) and none in Victoria.¹⁰

The constructions observed can be characterized as follows:

Morphology

- Pama-Nyungan applicatives are encoded by word-building suffixes which occur between the verb base and tense/aspect/mood/dependent suffixes. Non-Pama-Nyungan applicatives can be suffixes or prefixes to the verb.
- A few languages have two applicative affixes, one for locative/comitative applicatives and a different one for benefactive/malefactive applicatives.
- No language allows double applicativisation with a single base verb, but some allow causative to be followed by applicative.
- Applicativised verbs have the same morphological properties as basic transitive or ditransitive verbs and can be further derived by, for example, reflexive-reciprocal constructions.
- There are no reported periphrastic or analytical applicatives in any Australian language.

Syntax

- Almost all the constructions surveyed are P-applicatives and involve an increase in valence.
- A few languages (Diyari, Arabana-Wangkanguru) have D-applicatives where the added participant carries a non-P case marker, such as dative or instrumental. Bardi has an X-applicative.
- All applicatives are optional in the sense that semantic roles like locative, comitative, instrumental, or benefactive can always be expressed as case-marked adjuncts in regular non-applicative constructions.
- Most languages only have applicatives of active intransitive verbs with a volitional S, typically ‘to laugh at’ and ‘to cry for’, plus, optionally verbs of stance or motion.
- In some languages the same affix that marks applicatives with such verbs also attaches to other intransitive verbs (e.g., change of state or location) to express a causative meaning. In some languages there is a separate causative morpheme (which does not attach to transitive verbs).

¹⁰ The available sources for Victoria and much of southern New South Wales are fragmentary, so the apparent geographical gap may rather be due to the lack of reliable descriptions.

- A limited number of languages have applicatives of transitive base verbs, and for some of those which do (such as Yidiny, Dyirbal, Warrgamay) the base verb must first be detransitivised by an antipassive construction before the applicative can be created (i.e. VTR → VINTR → VTR).

Semantics

- The applied phrase typically expresses locative or comitative semantic roles. Murinhpatha is exceptional in that only a source or malefactive role is associated with the applicative construction;
- Some languages also extend applicatives to expressing an instrument role as the P-applicative argument.
- In languages with two applicative constructions, the additional one typically expresses a beneficiary or maleficiary (depending on verb semantics) as the P argument.

Diachrony

The only potential historical sources for applicatives that have been identified are in Daly languages where the origin appears to be grammaticisation of incorporated body parts, such as ‘hand’ or ‘eye’ (see § 4.3).

Abbreviations

A	transitive subject
ABL	ablative
ABS	absolutive
ACC	accusative
ALL	allative
ALT	altruistic
ANAPH	anaphoric
ANTIP	antipassive
AUG	augmented
AUX	auxiliary
BEN	benefactive
CM	conjugation marker
COMIT	comitative
DAT	dative
DIM	diminutive
DOBJ	direct object
DU	dual
ERG	ergative
EXCL	exclusive

F	feminine
FILL	morphological filler
FUT	future
HUM	human
IMPLDS	implicated clause-different subject
INCL	inclusive
INCH	inchoative
INS	instrumental
IRR	irrealis
LOC	locative
M	masculine
MIN	minimal
N	neuter
NF	non-feminine
NFUT	non-future
NM	non-masculine
NOM	nominative
NPST	non-past
OBL	oblique
OBJ	object
P	transitive object
PC	past continuous
PFV	perfective
PI	past imperfective
PL	plural
POSS	possessive
PP	past perfective
PRS	present
PRO	pronoun
PST	past
PTCP	participial
PUNC	punctual
PURP	purposive
RDP	reduplication REAL realis
REC	recent
REL	relativiser
REM	remote
RR	reflexive-reciprocal
S	intransitive subject
SBJ	subject
SG	singular
TH	thematic consonant
TOP	topic
TRZ	transitiviser
x>y	x acts on y

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14 Applicativizing preverbs in selected European languages

Abstract: This chapter surveys the morphology, syntax, and semantics of applicativizing preverbs in English, German, Hungarian, and the Slavic and Baltic languages, with some comments on their non-applicativizing uses. Applicativizing preverbs may be particles or affixes, are transparently related to adverbs/adpositions with spatial and/or aspectual functions, and introduce a new participant to the clause (usually a direct object, occasionally an oblique argument, rarely an indirect object). The chapter pays special attention to English *out*-verbs and German *be*-verbs, which have semantics of a kind hitherto unattested outside Germanic; it also gives a detailed overview of the semantics of the relatively numerous Slavic and Baltic preverbs.

1 Introduction

The term **PREVERB** as used in Indo-European linguistics denotes a class of preverbal particles or prefixes that form a close semantic unit with their host verb and frequently appear as adverbs or adpositions as well (Booij and Van Kemenade 2003). Such preverbs often have spatial and/or aspectual semantics; this has been extensively explored in the literature on Romance, Germanic, and Slavic. (The authoritative sources on early Indo-European preverbs are Kuryłowicz 1964 and Watkins 1964; see Rousseau 1995, Booij and Van Marle 2003, and references therein for studies covering modern languages, also beyond Indo-European, and Arkadiev 2014, 2015 for a broader perspective.) What has attracted comparatively less attention is the fact that some preverbs have a syntactic effect, either in addition to or instead of the spatial-aspectual meaning: a number of preverbs can alter the verb's argument structure to introduce or promote non-subjects in the clause. (See Zúñiga and Creissels, this volume, for a discussion of the notion of applicativization and an explanation of the terms P-applicative, D-applicative, and X-applicative.) After this introduction, the present chapter surveys the morphology, syntax, and semantics of such applicativizing preverbs in selected languages of Europe, namely English (§ 2), German (§ 3), Slavic and Baltic languages (§ 4), and Hungarian (§ 5).¹ Section 6 closes the chapter summarizing the findings and tentatively

¹ Close parallels are found across Germanic. Specialized studies focusing on preverbs in languages other than the ones outlined here range from numerous (for Dutch; see, e.g., Van der Auwera 1999 and

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framing them in comparative terms, along the lines proposed in Zúñiga and Creissels (this volume).

The Dutch example in (1) illustrates the kind of phenomena at the center of attention here. The intransitive verb *werken* ‘work’ can occur with a direct object when applicativized by a preverb like the particle *uit*:

(1) Dutch²

- a. *Het systeem werk-t langzaam.*
the system work-3SG slow(ly)
‘The system works slowly.’
(<https://www.asus.com/be-nl/support/FAQ/1042398>, 31.12.21)
- b. *Hier kun je ongestoord nieuwe plannen uit-werk-en.*
here can you undisturbed new plans APPL-work-INF
‘Here, you can elaborate new plans undisturbed.’
(<https://www.beleefzaltbommel.nl/winkels/work-zaltbommel>, 29.04.22)

We find close semantic equivalents of Dutch *uitwerken* ‘elaborate, effect’ in the languages of our sample that are also close morphosyntactic equivalents: English *work out*, German *ausarbeiten*, Hungarian *kidolgoz*, and Czech *vypracovat*. (English is the exception here, featuring as it does a postverbal particle; all other languages have preverbal particles or prefixes). The pattern is definitely old: even the classical languages have equivalents (viz. Classical Greek *exergázomai* and Classical Latin *ēlabōrō*). Among the many related phenomena that fall outside the scope of this chapter are those addressed by Jackendoff (1997) in his study of English constructions like *Bill slept the afternoon away* and *Susan worked her head off last night*.

2 English

2.1 Morphology

English particles are postverbal rather than preverbal and characteristically have a spatial and/or aspectual meaning; the particles *out* and *off* occasionally applicativize as well (e.g., in *I worked the instructions out* and *he slept off the flu*). There are cases like

Van Kemenade and Los 2003) through few (for Scandinavian; see, e.g., Gronemeyer 1995) to non-existent (for Yiddish). Parallels are also found in Romance, for instance, French *le coureur est passé devant son concurrent* ‘the runner passed in front of his competitor’ vs. *le coureur a dépassé son concurrent* ‘the runner overtook his competitor’ (Denis Creissels, p.c.).

² Unless otherwise specified, numbered examples come from the authors’ personal knowledge (in case they speak the specific language) or personal documentation (in case they have worked on it but have not yet published the data).

outride, which means both ‘surpass in riding’ and ‘(tackle and) survive, ride out’, but they are infrequent; many *out*-verbs have only one of these kinds of meaning, namely either the one that clearly differs from the meaning of the [V *out*] complex or the one that is closer to it.³

The most productive applicative marker is the verbal prefix *out*-. It can also, albeit less productively, verbalize adjectives (*outsmart*) and nouns (*outnumber*). The few instances where deverbal *out*- is blocked include the verb *have* (e.g., *we have cars* vs. **we outhave them*), some change-of-state verbs (e.g., *the mugs dried* vs. **the mugs outdried the glassware*), and some idiomatic expressions (e.g., *we shot the breeze* vs. **we outshot them*) (Ahn 2022: 446). The prefix *be*- applicativizes some verbs but is no longer productive in present-day English; many *be*-verbs are also either archaic, formal, or informal in standard varieties of the language. This prefix can also occasionally verbalize adjectives (*bedumb*) and nouns (*befriend*).⁴ As in German, in some cases, non-finite forms are in use even where finite verbs are not (*beloved*, *benighted*). The prefix *out*- does not combine with the particle *out* or the prefix *be*-.⁵ Other prefixes, like *down*-, *over*-, and *under*- are quite productive in general but applicativize only occasionally (e.g., in *downplay*, *overcome*, *undergo*).

The prefix *out*- is a spatial or aspectual verbal marker in instances that are mostly archaic or poetic, as in *outburst* ‘burst out’ and *outgo* ‘go out’. More often, however, it functions as a dedicated applicativizer or verbalizer, much as *be*-.

The origin of *out*(-) is OE *ūt* ‘out’ / *ūte* ‘outside’ < PG **ūt* / **ūtai* < PIE **úd* ‘upwards, away’ (cf. its German cognate *aus* ‘out’ < OHG *ūz*, which can also applicativize in that language; see § 3.2). The English prefix *be*- is cognate with German *be*-; see Section 3.1.

2.2 Syntax

English applicatives are normally optional P-applicatives. *Out*-verbs are invariably transitive, irrespective of their base’s transitivity.⁶ Applicative *be*-verbs can be monotransitive or ditransitive.

The applied phrase (AppP) is a direct object in applicative constructions (ACs) with either *out*-verbs (2) or *be*-verbs (3):

3 See Dehé et al. (2002), Haiden (2006), Dehé (2015), and McIntyre (2015) for overviews of so-called particle/phrasal verbs in Germanic. See Thim (2012) for English preverb+verb constructions and their diachrony.

4 Not only *out*-, *be*-, and other prefixes but also several particles appear with nominal and adjectival bases that do not normally occur as verbs on their own, for instance, in *tone down*, *clock in*, *tail off*, *soldier on*, *pig out*, *ramp up* and *dumb down*, *single out*, *wise up*. See McIntyre (2016) for more details.

5 See Schröder (2011) for an overview of the productivity of verbal prefixes in English.

6 See Ahn (2022) for an analysis of this particular feature in the Chomskyan tradition.

- (2) English
 - a. *Stocks performed better than other investments.* (BC)
 - b. *Stocks **out**performed other investments.* (AC)
- (3) English (b: Peter Russell, *Nine*, 1954)
 - a. *Imagine Achilles barking at a plan of Agamemnon's!* (BC)
 - b. *Imagine Achilles **be**barking a plan of Agamemnon's!* (AC)

Passivized *out*-ACs grant their P's subject status; this is illustrated for *outdo* and *outrun* in (4):

- (4) English
 - a. *He himself was **out**done by Jocelyne.*
(J. Willis, *The Irish Nation*, 1875, p. 105)
 - b. *Not all of the Cops were **outrun**.*
(*Tampa Bay Times*, Florida, September 3, 2005)

Transitive applicative *be*-verbs in passive clauses behave like *out*-verbs: the new P is granted subject status, as in *the relative lack of female doctors was bemoaned*.⁷ Other verbs show some syntactically and lexically conditioned variation. Active ditransitive *begrudge*, for instance, can occur either with the double-object construction (e.g., *they begrudged him his wealth*) or, albeit under more restricted circumstances, with the *to*-construction (e.g. *they begrudged its facilities to a city that. . .*) (Wasow 1997: 84). Note in (5) that either non-Agent-like (i.e., non-Experiencer) participant can be a passive subject, but this is not a simple consequence of the corresponding active syntax; with the *to*-construction, the subject is—as expected—the Theme-like argument (5a); with the double-object construction, however, the subject can be either the Goal-like argument (5b) or the Theme-like argument (5c):

- (5) English
 - a. *They took satisfaction in abusing the advantages that were begrudged to them.*
(*Cumberland Evening Times*, Maryland, January 28, 1952)
 - b. *I was begrudged what I was paid.*
(*Archbold Buckeye*, Ohio, August 8, 2007)
 - c. *Even these precarious occupations were begrudged them.*
(Joseph Strauss, 'A modern Synhedrin', *Westminster Review*, 1914, p. 304)

The prefix *out*- is normally transitivity-increasing/valency-increasing, but it can also be re-directing/valency-neutral; (6) shows one example of each type. The marker transitivity-increases

⁷ Source: McKinstry, Brian. 2008. Are there too many female medical graduates? Yes. *The BMJ* 336(7647): 748.

either intransitive or ambitransitive verbs (*outstay*, *outsit*, *outdrink*) (6a); it also appears on monotransitives and ditransitives when construed with generic/implicit objects in the BC (*outkill*, *outgive*) (6b):

- (6) English (b: Pinker 2012: 119, *The better angels*. . ., Penguin ed.)
- a. *The dictator outstayed several of other leaders.*
 - b. *Southerners do not outkill northerners in homicides carried out during robberies. . .*

When occurring on (di)transitive base verbs, *out-* suppresses any base direct objects in the AC in order to accommodate the applied phrase (e.g., *she killed more people than you* → *she outkilled you*). By contrast, valency-neutral *be-*—found more often in earlier stages of the language—does not normally change clausal syntax (e.g., *he cursed the enemy* → archaic *he becursed the enemy*). The prefix *be-* can also be valency-increasing, as in the alternation illustrated in (3) above.

Out-verbs normally participate in straightforward BC-AC oppositions when they are not deadjectival or denominal; consider (7), for instance, where the relevant constituent is licensed by the expression *longer than* in the BC:

- (7) English
- a. *The guests stayed longer than their hosts.* (BC)
 - b. *The guests outstayed their hosts.* (AC)

By contrast, *be*-verbs seldom show alternations like the one in (8), where a PP in the BC corresponds to an object in the AC:

- (8) English
- a. *An unusual calm fell upon the wetlands.* (BC)
 - b. *An unusual calm befell the wetlands.* (AC)

Even with deverbal *be-*, frequently there is no BC-AC alternation; consider verbs like *behave* ‘act’, *become* ‘befit’, *begive* ‘endow’, for example.

Particles have a comparable effect when they applicativize; with *out*, for instance, the applied phrase is a direct object and the AC (9b) can undergo passivization (9c):

- (9) English
- a. *She is still working on those details.* (BC)
 - b. *She is still working out those details.* (AC)
 - c. *Those details haven’t been worked out yet.*

Note that the valency-increasing effect of spatial/aspectual particles is a special case of a broader phenomenon in Germanic (McIntyre 2007); intransitive *vote* (10a), for instance,

can accommodate a Figure object by adding *out* with a covert or overt Ground (10b), or by adding other particles, like *in* and *off* (and even *up* or *down*) (10c):⁸

(10) English

- a. *She is too young to vote.*
- b. *We voted her out (of office).*
- c. *New Boston voted the measure in as well during their meeting Thursday.*
(<https://kkyr.com/four-day-school-weeks-begin-this-fall-in-four-east-texas-districts>, 29.04.22)

Table 1 below summarizes the syntactic effects of *out-*, *be-*, and *out*.

Table 1: Syntactic effects of three English applicative markers.

		<i>out-</i>	<i>be-</i>	<i>out</i>
valency-increasing	(1/2 → 2)	✓	(✓)	(✓)
valency-neutral	(2 → 2)	✓	✓	×
valency-decreasing	(3 → 2)	(✓)	×	×

2.3 Semantics

Like many other English compound verbs, those of the *out-V* and [*V out*] types often show spatial and aspectual meaning components related to their prefix or particle and do not alter argument structure. When some prefixes or particles applicativize, however, not only do they introduce an argument to the clause, but they also have “a scalar or quantitative reading, rather than a purely locative one” (Bauer et al. 2013: 353).

More precisely, the semantics of ACs headed by *out*-verbs seems to be meaningfully captured by an interpretational cline ranging from two related but distinct poles (Kotowski 2020). With the “comparative” reading, the subject and the applied object engage in an event of the same kind, and the latter is a threshold exceeded by the former. With the “resultative” reading, the applied object is a participant of a sub-event caused by an event in which the subject participates; here, the notion of competition (and therefore of defeat) is prominent. Depending on semantic features of the participants and contextual clues, one of these readings is usually favored. In (11), for instance, the applicative clause *to outsit your neighbors* can be given a comparative interpretation, according to which the implicit subject simply surpasses the object in sitting (i.e., someone sits longer than their neighbors). Alternatively, the resultative interpretation

⁸ See McIntyre (2007) for a discussion of applied Ground objects, as well as for a general discussion of the argument structure of English and German verbs.

regards sitting as a competition in which the object loses out (i.e., some sits longer than their neighbors and thereby the latter are outdone):

(11) English (Kotowski 2020: 63)

The trick is to outsit your neighbors. Lots of hunters get tired and antsy after spending many hours in a stand, and start coming down to the ground by 10 A.M. or so.

Further note that *out*-verbs are monotransitive irrespective of their base's transitivity (see § 2.3), and that the semantic roles of their subjects and objects are not mechanically adopted from their base counterparts as with canonical applicatives. Consider *Atlanta also out-rained Seattle in 1922 and 1923* (Ahn 2022: 459), where both arguments are arguably introduced into the clause by *out*-. By a similar token, both the subject and the object in (12a) are agentive (they are Agents of transitive *sell*), just as both arguments in (12b) are patientive (they are Patients of *sell* in its habitual/potential-passive use).⁹ In both clauses, however, an asymmetrical threshold-/competition-related feature is combined with base agentivity/patientivity in order to arrive at a composite semantic role:

(12) English (Ahn 2022: 457)

- a. *We out-sell all other fruit sellers.*
- b. *Bananas out-sell plums.*

Lastly, note that base verbs show clear actionality-related tendencies (Kotowski 2020): activities (*outrun*) and semelfactives (*outblink*) seem to be much more common than states (*outweigh*) and achievements (*outwin*).

As in German, the semantic effect of *be*-prefixation is heterogeneous. With many verbs (like *befall* in (8) above), *be*- in the AC closely mirrors the spatial and related notions expressed by prepositions like *about*, *across*, *around*, *at*, *by*, *on*, *over*, and *to* in the BC. Interestingly enough, the semantics seem to have included something akin to the “holistic” effect present with German *be*-verbs in the past, namely a feature of spatial expansion, intense action, and/or higher affectedness (see § 3.3).¹⁰ Nowadays, this holds only marginally and occasionally, for verbs like *beset* ‘attack, especially from all sides’, and for some speakers with *belabor* ‘work (hard) on’ and *bedazzle* ‘disarm by dazzling’.

⁹ Interestingly enough, as mentioned in Section 2.1, some change-of-state verbs do not behave like *sell*, which applicativizes in both its transitive and its patientive-intransitive (“middle”) version. For instance, *dry* can be applicativized in its transitive version (*Alun dried silverware better than Colin in the dish-washing competition* vs. *Alun outdried Colin in the dish-washing competition*), but not in its patientive-intransitive (non-causative) version (*the mugs dried* vs. **the mugs outdried the glassware*) (Ahn 2022: 446).

¹⁰ See Beavers (2017) for a discussion of the holistic effect in the so-called locative alternation in English.

2.4 Lookalikes

As mentioned in Section 2.1, English applicative preverbs exist in spaces teeming with lookalikes. Since uncoded polyvalency alternations are quite common in the language, syntactic lookalikes are the norm rather than the exception, and there is a vast literature that addresses them (see Levin and Rappaport Hovav 2005 and references therein). The following examples illustrate three common alternations that often correspond to BC-AC pairs in other languages, namely the benefactive alternation (13a–b), the locative alternation (13c–d), and the conative alternation (13e–f):

- (13) English
- a. *I bought flowers for Bridget.*
 - b. *I bought Bridget flowers.*
 - c. *You sprayed paint on the wall.*
 - d. *You sprayed the wall with paint.*
 - e. *She shot at the sheriff.*
 - f. *She shot the sheriff.*

By contrast, the dative alternation (14a–b) does not normally correspond to BC-AC pairs in languages with applicatives:

- (14) English
- a. *He gave flowers to Claire.*
 - b. *He gave Claire flowers.*

Morphologically, there is no English preverb, either particle or prefix, that is dedicated for, or even predominantly used with, an applicativizing function; all such markers have spatial/aspectual notions as their most usual functional domain. The closest present-day English comes to having something like an applicative marker that has other functions as well (rather than the other way round) is the prefix *out-* with intransitive bases.

3 German

3.1 Morphology

Before discussing applicativizing preverbs, some general remarks on German preverbs are in order. A number of these elements occur only as verb prefixes, like *be-* and *ent-*; they are unstressed and cannot be detached from their host. Other preverbs occur as either particles (sometimes called “separable prefixes” in the literature) or preposi-

tions, like *ab(-)* ‘off, from’ and *aus(-)* ‘out’. Yet other preverbs occur as either prefixes, particles, or prepositions, like *durch(-)* ‘through’ and *um(-)* ‘around’. Verb particles are stressed and appear detached from their host in some forms (e.g., finite synthetic forms, like *es laufen Gerüchte um* ‘rumors are circulating’) but attached to them in others (e.g., nonfinite forms and finite analytic forms that used them, like *es sind Gerüchte umgelaufen* ‘rumors have circulated’). The slot for prefixes is closest to the verb root, while the slots for particles are more peripheral (e.g., *an-zu-be-fehlen* ‘to order, entrust’). Most prefixes and particles are invariable and multifunctional (i.e., they applicativize some verbs but have different functions with others; see § 3.4); the prefix *ent-* changes to *emp-* before *f* in some verbs (*empfangen*, *empfehlen*, *empfinden*) but not in others (*entfallen*, *entfesseln*, *entführen*).

German applicative preverbs can also be classified in three groups. Group I consists of the prefixes *be-*, *er-*, *ver-*, *zer-*, and *ent-*, which only occur as prefixes; (15) illustrates the first of these:

(15) German

- | | | | | | | | |
|----|------------|-------------------------------------|-----------|---------------|-----------------|---------------|------|
| a. | <i>Sie</i> | <i>arbeit-et</i> | <i>an</i> | <i>ihr-em</i> | <i>letzt-en</i> | <i>Roman.</i> | (BC) |
| | she.NOM | work-3SG | at | her-SG.M.DAT | last-SG.M.DAT | novel | |
| b. | <i>Sie</i> | <i>be</i> - <i>arbeit-et</i> | | <i>ihr-en</i> | <i>letzt-en</i> | <i>Roman.</i> | (AC) |
| | she.NOM | APPL-work-3SG | | her-SG.M.ACC | last-SG.M.ACC | novel | |

Both: ‘She is working on her last/latest novel.’

These markers differ regarding their semantics and often also their syntax. As to their occurrence across the lexicon, many verbs can take several of them: *schießen* ‘shoot’, for instance, can be applicativized with any of these markers (*erschießen* ‘shoot dead’, *verschießen* ‘shoot off’, *zerschießen* ‘pierce/destroy through shooting’). Others are slightly more restrictive: *sprühen* ‘spray’ is fine and predictable with *be-* and *ver-* (both ‘spray’, with some nuances; see Stiebels 1996: 98–102) but does not take *er-* or *zer-*. By contrast, auxiliaries like *sein* ‘be’, *werden* ‘become’ and all modal verbs except *dürfen* ‘may’, as well as verbs like *heißen* ‘be called’ and *wissen* ‘know’, cannot take any of these markers.

Group II consists of the prefixes *durch-* ‘through’, *über-* ‘over’, and *um-* ‘around’ (as well as, albeit more marginally, *unter-* ‘under’). Example (16) illustrates *um-*:

(16) German

- | | | | | | | | |
|----|--------------|-----------------|---------------------------------|-----------|--------------|------------------|------|
| a. | <i>Der</i> | <i>Satellit</i> | <i>läuft</i> | <i>um</i> | <i>den</i> | <i>Planeten.</i> | (BC) |
| | ART.SG.M.NOM | satellite | run.3SG | around | ART.SG.M.ACC | planet.ACC | |
| b. | <i>Der</i> | <i>Satellit</i> | <i>um</i> - <i>läuft</i> | | <i>den</i> | <i>Planeten.</i> | (AC) |
| | ART.SG.M.NOM | satellite | APPL-run.3SG | | ART.SG.M.ACC | planet.ACC | |

Both: ‘The satellite orbits the planet.’

These elements can also occur as prepositions (as in [16a]) or as particles (as in the example given at the beginning of this section, *umlaufen* ‘circulate’, different from *umláufen* ‘orbit’ in [16b]). Note that the productive applicativizing prefixes in Baltic-Slavic and some applicativizing particles in Hungarian have roughly the same meanings; see Sections 4.1 and 5.1, respectively. As with those in Group I, these markers appear in lexically conditioned, unpredictable patterns. *Laufen* ‘run’, for instance, is applicativized by *durch-* (‘run through’) and *um-* (‘run around’), but not by *über-* (‘overflow; defect’). By contrast, *denken* ‘think’ is applicativized by *durch-* (‘think through’), *über-* (‘rethink, reconsider’), and *um-* (ambitransitive ‘rethink’).

Group III consists of particles that have spatial-aspectual meanings with many verbs in most contexts but can occasionally applicativize, like *ab(-)* ‘off, from’ and *an(-)* ‘at, in’, as well as like *aus(-)* ‘out’ and *auf(-)* ‘up, on’ in (17).¹¹ Note also the subtle semantic variation in such cases:

(17) German

- a. *Wir arbeit-en an unser-em neu-en Plan.* (BC)
 we.NOM work-1PL at our-SG.M.DAT new-SG.M.DAT plan
 ‘We are working on our new plan.’
- b. *Wir arbeit-en unser-en neu-en Plan aus.* (AC)
 we.NOM work-1PL our-SG.M.ACC new-SG.M.ACC plan APPL
 ‘We are working out / elaborating our new plan.’
- c. *Wir arbeit-en die Vergangenheit auf.* (AC)
 we.NOM work-1PL ART.SG.F.ACC past APPL
 ‘We are processing the past.’

For an overview of German applicativizing preverbs, see Table 2.

Table 2: Main German applicativizing preverbs.

Group I	Group II	Group III
<i>be-</i>	<i>durch-</i>	‘through’
<i>er-</i>	<i>über-</i>	‘over’
<i>ver-</i>	<i>um-</i>	‘around’
<i>zer-</i>	<i>(unter-</i>	‘under’)
<i>ent-</i>		...

The etymons of Group I markers are as follows: *be-* < OHG *bi-* < PG **bi-* ‘on, at, by’; *er-* is originally spatial in origin, namely OHG *ar-/ir-* < PG **uz-* ‘out, up’; *ver-* < OHG. *far-/fir-* <

¹¹ See Stiebels (1996) for a detailed discussion of such particles. See also Cysouw (2023: 362–264) for a brief overview of applicativizing prefixes and particles.

PG **fra-* ‘in front of’, **firi-* ‘through, across’, **furi-* ‘for, in front’; *zer-* possibly comes from OHG. *zar-/zur-* < *ze-ar-/ze-ir-* < PG **twiz-* ‘in two, apart’; *ent-* < OHG *ant-* < PG **anda-/andi-* ‘against, un-’ (apparently originally an allative of the PIE noun **h₂énts* ‘face’). Group II markers originate in Proto-Germanic prepositions/adverbs, namely *durch* < PG **þurhw* ‘through’ (apparently originally a PIE verbal compound of **terh₂* ‘cross’ and **h₃ek^w* ‘see’), *über* < PG **ubiri* < PIE **upér(i)* ‘over, above’, and *um* < PG **umbi* < PIE **h₂mb^{hi}* ‘around’ (apparently originally an instrumental of **h₂énts* ‘face’) (see Koonen 2013 for the PG and PIE forms). Group III markers also originate in Proto-Germanic prepositions/adverbs.

Applicative prefixes cannot co-occur, either with each other or with themselves. The markers or their lookalikes can occur after some verbal particles, for instance, in *mit-be-kommen* ‘notice’, *an-be-halten* ‘keep (sthg.) on’, *auf-er-legen* ‘impose’, and *an-er-kennen* ‘acknowledge’.¹² Verbs that have prefixes before the particles are actually denominal (e.g., *be-an-standen* ‘complain about’ < *Anstand* ‘objection’, *be-auf-tra-gen* ‘mandate’ < *Auftrag* ‘assignment’, *ver-an-lagen* ‘assess’ < *Anlage* ‘investment, asset’).

German applicative prefixes are not restricted by specific tense-aspect-mood values, but some markers often work as denominal verbalizers, in which case many lexemes appear as past participles only (e.g., *beblümt* ‘flowery, flowered’; *‘beblumen* ‘flower [v.]’ is obsolete). In other such cases, finite forms do exist, but nominalized ones are much more frequently used (e.g., *behausen* ‘house [v.]’ vs. *Behausung* ‘abode, dwelling’). Unlike their Slavic, Baltic, and Hungarian counterparts, the aspectual yield of German applicative particles seems to be typically telicizing, rather than perfectivizing (see also §§ 4.1 and 5.1).

3.2 Syntax

3.2.1 *Be*-applicatives

The syntax of the most common *be*-applicatives is schematically summarized in Table 3.¹³

¹² In most German varieties, *an-* is a particle and *er-* is a prefix in *anerkennen*. Nevertheless, in some southwestern varieties (e.g., Swiss High German, Swiss German, and Liechtensteiner German), the string *aner-* is treated as a complex prefix (<http://mediawiki.ids-mannheim.de/VarGra/index.php/Anerkennen>).

¹³ We are glossing over some uncommon patterns here, like the one found with *lehren* ‘teach (sthg. to sbdy.)’ (which takes two accusative-marked objects) vs. *belehren* ‘instruct, teach (sbdy.)’ (which only takes one), or like those where the oblique constituent in the AC takes the genitive instead of a preposition, as in (28).

Table 3: Syntax of *be*-applicatives.

Type	Valency	BC	AC
A	1 → 2	SBJ V [PREP NP _i]	SBJ <i>be</i> -V DOB _j
B	1+ → 2	SBJ V IOB _j [PREP NP _i]	SBJ <i>be</i> -V DOB _j [PREP NP _i]
C	2 → 2	SBJ V DOB _j [PREP NP _i]	SBJ <i>be</i> -V DOB _j [PREP NP _i]
D	3 → 2	SBJ V IOB _j DOB _j	SBJ <i>be</i> -V DOB _j [PREP NP _i]

Cases where the AppP is semantically predictable show syntactic variation. The most common instances are those where intransitives are transitivized with *be*-, either as in (15) and in (18), where the non-agentive participant is a prepositional phrase in the BC (Type A; this also corresponds to the default Group-II cases), or as in (19), where it is an indirect object (Type B).

(18) German

- a. *Die Regierung kämpf-te gegen das Parlament.*
 ART.SG.F.NOM government fight-PST[3SG] against ART.SG.N.ACC parliament
- b. *Die Regierung be-kämpf-te das Parlament.*
 ART.SG.F.NOM government APPL-fight-PST[3SG] ART.SG.N.ACC parliament
- Both: 'The government fought against parliament.'

(19) German

- a. *Ein-e Katastrophe droh-te diesen Wäldern.*
 ART-SG.F.NOM catastrophe threaten-PST[3SG] these.DAT forests.DAT
- b. *Ein-e Katastrophe be-droh-te diese Wälder.*
 ART-SG.F.NOM catastrophe APPL-threaten-PST[3SG] these[ACC] forests[ACC]
- Both: 'A catastrophe threatened these forests.'

Cases broadly corresponding to the so-called locative-alternation are also numerous and come in three subtypes. First, some (few) verbs like *stopfen* 'stuff' can only participate in an uncoded alternation:

(20) German (Brinkmann 1995: 76)

- a. *Sie (*be-)stopf-te-n Wachs in das Loch.*
 they.NOM APPL-stuff-PST-3PL wax into ART.SG.N.ACC hole
 'They stuffed wax into the hole.'
- b. *Sie (*be-)stopf-te-n das Loch mit Wachs.*
 they.NOM APPL-stuff-PST-3PL ART.SG.N.ACC hole with wax
 'They stuffed the hole with wax.'

Some (also relatively few) verbs like *laden* 'load' participate in either an uncoded or a coded alternation:

(21) German

- a. *Sie lud das Heu*
 she.NOM load.PST[3SG] ART.SG.N.ACC hay
(auf den Wagen).
 on/onto ART.SG.M.ACC wagon
 'She loaded the hay onto the wagon.'
- b. *Sie (be-)lud den Wagen*
 she.NOM APPL-load.PST[3SG] ART.SG.M.ACC wagon
(mit dem Heu).
 with ART.SG.N.DAT hay
 'She loaded the wagon with the hay.'

Nevertheless, it is more common for locative verbs to participate only in a coded alternation (Type C in Table 3); consider the following example with *sprühen* 'spray':

(22) German

- a. *Er sprüh-te Wasser auf die Pflanzen.* (BC)
 he.NOM spray-PST[3SG] water on ART.PL.ACC plants
 'He sprayed water on the plants.'
- b. *Er be-sprüh-te die Pflanzen mit Wasser.* (AC)
 he.NOM APPL-spray-PST[3SG] ART.PL.ACC plants with water
 'He sprayed the plants with water.'

Cases where a three-argument clause is rearranged by applicativization are less common but do exist; in (23), the BC has a direct and an indirect object, the AC has a direct and a prepositional object, and the non-agentive referents are swapped vis-à-vis the BC (Type D). Due to a special reading of the HOLISM effect (viz. the "MANY effect"; see § 3.3), (23a) is comparatively neutral while (23b) means that probably many flowers were given:

(23) German

- a. *Er schenk-te ihr diese Blumen.* (BC)
 he.NOM gift-PST[3SG] she.DAT these[ACC] flowers
- b. *Er be-schenk-te sie mit diesen Blumen.* (AC)
 he.NOM APPL-gift-PST[3SG] she.ACC with these.DAT flowers
- Both: 'He gave her these flowers as a gift.'

Cases where variation is more considerable (and that often concern semantic unpredictability) include those with transitive verbs in the unmarked construction (see § 3.4).

3.2.2 *Er*-applicatives

The syntax of *er*-applicatives is summarized in Table 4.

Table 4: Syntax of *er*-applicatives.

Type	Valency	BC			AC		
A	1 → 2	SBJ	V	[PREP NP _i]	SBJ (<i>sich</i>)	<i>er</i> -V	DOBJ _i
B	2 → 2	SBJ	V	DOBJ _i [PREP NP _j]	SBJ	<i>er</i> -V	DOBJ _j [PREP NP _i]
C	3 → 2	SBJ	V	IOBJ _i DOBJ _j	SBJ	<i>er</i> -V	DOBJ _j

Er-transitivizes intransitive *kämpfen* ‘fight’ (24) (Type A) but rearranges the clause eliminating any indirect objects with ditransitive *geben* ‘give’ (25) (Type C):

(24) German

- a. *Die Regierung kämpf-te um den Sieg.* (BC)
 ART.SG.F.NOM government fight-PST[3SG] about ART.SG.M.ACC victory
 ‘The government fought for victory.’
- b. *Die Regierung er-kämpf-te den Sieg.* (AC)
 ART.SG.F.NOM government APPL-fight-PST[3SG] ART.SG.M.ACC victory
 ‘The government eked out victory.’

(25) German

- a. *Sie gab dem Polizist-en keinen Beweis seine-r Schuld.*
 she.NOM give.PST ART.SG.M.DAT policeman-DAT no.ACC proof
 his-GEN guilt
 ‘She gave no proof of his guilt to the policeman.’
- b. *Die Untersuchung er-gab keinen Beweis seine-r Schuld.*
 ART.SG.F.NOM investigation ER-give.PST no.ACC proof his-GEN guilt
 ‘The investigation found no evidence of his guilt.’

With *fragen* ‘ask’, however, the syntactic effect of *er*-prefixation corresponds to that of locative-alternation *be*-verbs, that is, the direct object and the prepositional object swap places (Type B):

(26) German

- a. *Sie frag-te ihn nach dem Weg.* (BC)
 she.NOM ask-PST[3SG] he.ACC after ART.SG.M.DAT way
 ‘She asked him about the way.’

- b. *Sie er-frag-te den Weg von ihm.* (AC)
 she.NOM APPL-ask-PST[3SG] ART.SG.M.ACC way of he.DAT
 'She inquired (information about) the way of him.'

3.2.3 *Ent*-applicatives

Finally consider one possible effect of *ent*-prefixation. Here, the AppP is an indirect, rather than a direct, object;¹⁴ it is relatively easy to find intransitive verb bases (like *steigen* 'climb') that show such a pattern:

(27) German (Stiebels 1996: 110)

- a. *Sie steigt aus dem Auto.*
 she.NOM climb-3SG out ART.SG.N.DAT car
 b. *Sie ent-steigt dem Auto.*
 she.NOM APPL-climb-3SG ART.SG.N.DAT car
 Both: 'She gets out of the car.'

We have not found any instances of this D-applicative with transitive bases; consider, however, Examples (33)–(34) in Section 3.4, both based on transitive base verbs.

3.2.4 Summary

Most German applicatives are optional P-applicatives; *ent*-derivation yields optional D-applicatives. Table 5 below summarizes the syntactic effects of *be*-, *er*-, and *ent*-.

Table 5: Selected syntactic effects of three German preverbs.

		<i>be</i> -	<i>er</i> -	<i>ent</i> -
valency-increasing	(1 → 2)	✓	✓	✓ (IOBJ)
valency-neutral	(2 → 2)	✗	✓	✗
valency-decreasing	(3 → 2)	✓	✓	✗

¹⁴ Note in passing that the prefix *unter*-, which applicativizes only occasionally, can also introduce AppPs as indirect objects / D's (e.g., *liegen* 'lie' → *unterliegen* 'be defeated by, be subject to', *stehen* 'stand' → *unterstehen* 'be subordinate to').

3.3 Semantics

Cross-linguistically common applied objects are Instruments and Comitatives on the one hand, and Beneficiaries and Locations on the other. In German ACs, only the latter group is found, and the picture is much more complicated than what such a simple semantic-role-based account can provide.

Semantically, the applied object found with Group-II prefixes and Group-III particles is usually transparently related to whatever spatial meaning the homophonous prepositions or particles have. Applied objects of verbs with Group-I prefixes show a more varied picture—except *ent-*, which has a separative meaning. Depending on the verb it applicativizes, *er-* introduces notions like killing, as in *schießen (auf)* ‘shoot (at)’ vs. *erschießen* ‘shoot dead’, or intended possession, as in *arbeiten* ‘work’ vs. *erarbeiten* ‘work (sthg.) out’. Similarly, *ver-* conveys resultativity, usually with some intensification (*urteilen* ‘deliver judgment’ vs. *verurteilen* ‘convict, condemn’), or damage/destruction (*pinkeln* ‘pee’ vs. *verpinkeln* ‘ruin by peeing’). *Zer-* typically also denotes, among other things, damage/destruction (*treten* ‘tread’ vs. *zertreten* ‘crush underfoot’).

Applied objects found with German *be*-verbs bear a fairly complex semantic relationship to their predicate. With locative base verbs—i.e., those that take Goal direct objects—the *be*-applicative corresponds to *auf* ‘on’ or *an* ‘at’, as in *werfen (auf)* ‘throw (on)’ vs. *bewerfen* ‘throw on/to’; with intransitive base verbs in particular, it can also correspond to *in* ‘in’ (cf. *treten* ‘tread’ vs. *betreten* ‘enter’). Notably, while such verbs denote a variety of spatial relationships in base clauses, depending on the specific adposition used and on lexical context, *be*-verbs denote relationships of contact with the applied phrase and usually exclude the interior of entities in applicative clauses, that is, the so-called “topological restriction” between Figure and Ground (Brinkmann 1995: 78–82). Some, but not all, locative verbs have *be*-forms; Brinkmann also points out (p. 86) that Goals must not be containers and subjects must be Agents in order for applicative clauses to be admissible.¹⁵

Moreover, Brinkmann (1995: 84–86) distinguishes six semantic classes of *be*-verbs in addition to the locative class just outlined, which are heterogeneous as to the semantic role of the non-agentive participant in the base clause. Four of these classes are rather transparent and systematic: material manipulation (e.g., *arbeiten [an]* ‘work [on]’ vs. *bearbeiten* ‘work on, edit’), active perception (e.g., *tasten [nach]* ‘feel [for]’ vs. *betasten* ‘examine by touching repeatedly’), emotion (e.g., *staunen [über]* ‘be amazed [at]’ vs. *bestaunen* ‘contemplate in amazement’), and speech (e.g., *sprechen [über]* ‘talk [about]’ vs. *besprechen* ‘talk about, discuss’). The other two classes are more idiosyncratic: Recipient/Beneficiary-verbs include not only those like *schenken* ‘present, gift’

¹⁵ Chapter 6 of Brinkmann’s study deals with the details of the restrictions on which verbs participate in the so-called locative alternation in German, which include, but are not limited to, the topological restriction. See Stiebels (1996) for details on non-*be*-applicatives in German and their semantic characteristics.

and *erben* ‘inherit’ but also those like *kochen* ‘cook’ (*bekochen* ranges from simple ‘cook for’ to ‘provide/support via cooking’); the last class includes some privative verbs (e.g., *rauben* ‘steal’ vs. *berauben* ‘rob, steal from’). Example (28) illustrates a pair with these latter verbs:

(28) German

- a. *Sie raub-te ihm sein-e Ersparnisse.* (BC)
 she.NOM steal-PST [3SG] he.DAT his-PL.ACC savings
 ‘She stole his life savings from him.’
- b. *Sie be-raub-te ihn (sein-er Ersparnisse).* (AC)
 she.NOM APPL-steal-PST[3SG] he.ACC his-PL.GEN savings
 ‘She robbed him (of his life savings).’

Besides this considerable semantic range, the topological restriction with locative verbs mentioned above shows an important but difficult-to-capture semantic parallel with the other verb classes. Brinkmann states that “these verbs usually imply a holistic interpretation of the goal, and the speaker can express the theme in an optional *with*-phrase” (1995: 86). Nevertheless, Michaelis and Ruppenhofer (2001) question some fundamental tenets of Brinkmann’s account and propose semantic constraints that originate differently, that is, not in general principles and the verbal input, but in the *be*-prefixation rule itself. This study advances an analysis in terms of a prototype and several extensions thereof (which also receives support from the historical evidence, pp. 89–92). With the prototype, the base object is a Theme that covers a surface expressed as the applied object (*schmieren* vs. *beschmieren*, both ‘smear’); with the extensions, this Theme-covers-surface schema is extended and superimposed to the domains of perception (*riechen* vs. *beriechen*, both ‘smell’), communication and discourse (*sprechen* ‘speak’ vs. *besprechen* ‘discuss’), and the others of Brinkmann’s non-locative classes. Examples (29)–(31) illustrate the case frames of (*be*)*schmieren*, (*be*)*riechen*, and (*be*)*sprechen*, respectively:

(29) German

- a. *Er schmier-te Butter auf-s Brot.* (BC)
 he.NOM smear-PST[3SG] butter on-ART.SG.N.ACC bread
 ‘He smeared butter on the bread.’
- b. *Er be-schmier-te das Brot mit Butter.* (AC)
 he.NOM APPL-smear-PST[3SG] ART.SG.N.ACC bread with butter
 ‘He smeared the bread with butter.’

(30) German

- a. *Der Hund roch an mir.* (BC)
 ART.SG.M.NOM dog smell.PST on 1SG.DAT

- b. *Der Hund be-roch mich.* (AC)
 ART.SG.M.NOM dog APPL-smell.PST 1SG.ACC
 Both: ‘The dog sniffed at me.’¹⁶

(31) German

- a. *Wir sprach-en über die Lokalpolitik.* (BC)
 we.NOM speak.PST-1PL about ART.SG.F.ACC local.politics
 ‘We spoke about local politics.’
- b. *Wir be-sprach-en die Lokalpolitik.* (AC)
 we.NOM APPL-speak.PST-1PL ART.SG.F.ACC local.politics
 ‘We discussed local politics.’

Note that, with extensions, the notion of coverage (i.e., the “HOLISM effect”) typically turns into saturation and affectedness (*wohnen* ‘dwell’ vs. *bewohnen* ‘inhabit’) or repetition and intensification (*siegen* ‘win’ vs. *besiegen* ‘defeat’).¹⁷

3.4 Lookalikes

Regarding syntactic lookalikes, German differs markedly from English in that labile verbs like *laden* ‘load’ (see Example [21] above for the relevant case frames) and *stopfen* ‘stuff’ do exist but constitute a small class, which makes polyvalency alternations like the ones illustrated in (20)–(21) above certainly notable precisely because they are not the typical case. German does have regular and frequent uncoded alternations, however; as in Slavic-Baltic and Hungarian, dative-marked NPs can be accommodated in clauses headed by identical predicates quite flexibly, in order to express a wide variety of extra-thematic participants, including Beneficiaries/Maleficiaries, Viewpoint Holders, etc. (cf. §§ 4.4 and 5.4).¹⁸

Regarding morphological lookalikes, German shows a plethora of important phenomena. First, *applicativa tantum* are numerous, especially with denominal and deadjectival verbs built with Group-I prefixes, for instance, *verstauben* ‘get dusty, dust (tr.)’ (from *Staub* ‘dust [n.]’) and *berichtigen* ‘correct (v.), rectify’ (from *richtig* ‘correct [adj.], right’).

¹⁶ The underived labile verb *riechen* ‘smell’ is unusual in that it can be A- or P-labile; it also allows a direct object (*der Hund roch mich* ‘the dog smelled me’ contrasts with (30b) only regarding semantics).

¹⁷ Along similar lines, Dewell (2015) proposes a Construction-Grammar account of German preverbs in general. In his view, German applied direct objects denote a “route-path” specified by the corresponding adposition (if any), either concrete (with locative verbs) or abstract (with other verbs). While applicative particles would then lead to a sequential reading of that route-path, paying attention to its successive locations, applicative prefixes would lead to a synoptic/holistic reading, focusing on a whole stable setting whose part that route-path is (Dewell 2015: 313).

¹⁸ See Cysouw (2023: 98–100) and references therein for an overview of such clauses.

Second, not only valency-neutrality but also broad syntax-neutrality with prefixes from Group I is also quite common. Consider, for instance, *fragen* ‘ask’ vs. *befragen* ‘question, interview’ in (32). The underived verb can occur with or without a direct object (32a); the derived verb normally occurs with a direct object corresponding to the same referent, but the main effect of prefixation is fundamentally semantic, not syntactic (32b)—not unlike what occurs with some Bantu applicative lookalikes (see Pacchiarotti, this volume):

(32) German

- a. *Er frag-te (sie) nach dem Weg.*
 he.NOM ask-PST[3SG] she.ACC after ART.SG.M.DAT way
 ‘He asked (her) about the way.’
- b. *Er be-frag-te sie nach dem Weg.*
 he.NOM INTENS-ask-PST she.ACC after ART.SG.M.DAT way
 ‘He asked her about the way.’

A particularly productive pattern consists in *ver*-verbs that take the middle marker *sich*;¹⁹ such expressions denote a faulty action (*laufen* ‘walk’ vs. *sich verlaufen* ‘get lost’). Lastly, there are many cases where *be-*, *er-*, *ver-*, and *zer-* have a purely semantic yield (occasionally idiosyncratic and often also aspectual, i.e. broadly telicizing; e.g., *schließen* ‘shut’ vs. *erschließen* ‘deduce, unlock, open up’), as well as all instances where *ent-* is simply a reversive prefix (*decken* ‘cover’ vs. *entdecken* ‘discover’).

Ent-verbs based on transitive predicates are not applicatives. Consider the following example with *ziehen* ‘draw, pull’—here in a coded alternation of the equipollent marking subtype (viz. *wegziehen*, with the particle *weg*, vs. *entziehen*) rather than *bona fide* applicativization:

(33) German

- a. *Sie zog ihr-e Hand von ihm weg.*
 she.NOM pull.PST[3SG] her-SG.F.ACC hand of he.DAT away
- b. *Sie ent-zog ihm ihr-e Hand.*
 she.NOM ENT-pull.PST[3SG] he.DAT her-SG.F.ACC hand
- Both: ‘She withdrew her hand from him.’

Other “transitive” pairs like *erben* ‘inherit’ vs. *enterben* ‘disinherit’ show a direct object in both clauses, but that object’s semantic role is altered (as in the English equivalents), and the oblique participant disappears from the clause headed by the derived verb:

¹⁹ An erstwhile accusative-marked reflexive, *sich* is nowadays used in reflexive (*sich fragen* ‘ask oneself’), reciprocal (*sich treffen* ‘meet’), anticausative (*sich öffnen* ‘open’), potential passive (*sich lesen* ‘[can] be read’), and other functions.

(34) German

- a. *Er erb-te ein Haus (von sein-em Großvater).*
 he.NOM inherit-PST[3SG] ART.SG.N.ACC house of his-SG.M.DAT grandfather
 ‘He inherited a house (from his grandfather).’
- b. *Sein Großvater ent-erb-te ihn.*
 his[SG.M.NOM] grandfather ENT-inherit-PST[3SG] he.ACC
 ‘His grandfather disinherited him.’

Finally, there is at least one instance of the causative-applicative polysemy common in other languages (Zúñiga and Kittilä 2019: Ch. 8.2.1; Bahrt 2021: Ch. 4.3.1): *leben* ‘live’ vs. *beleben* ‘quicken, stimulate, enliven’.

4 Slavic and Baltic

4.1 Morphology

There are about twenty verbal prefixes (preverbs) in Slavic languages and about a dozen in Baltic. None of them has applicativization as its only or primary function, their ability to modify the base verb’s argument structure and introduce arguments being a consequence of their origin as spatial modifiers and further development into aktionsart markers and perfectivizers. (For a general overview of Slavic, see Oertle 2016, Janda 2020 and references therein; for Baltic, the most comprehensive overview to date is still Endzelīns 1971[1907].) Most prefixes in both branches have an obvious formal and functional relation to prepositions and/or spatial adverbs (see again Oertle 2016 for a general and comparative overview of Slavic and Petit 2011 for Baltic) and both originate from adverbial or nominal roots with locational meanings, often with cognates across Indo-European. Table 6 lists the most common preverbs of both branches with their basic meanings.

Table 6: Common preverbs in Slavic and Baltic.

Slavic (represented by Russian)	Baltic
<i>do-</i> ‘until’; to completion	Latg. + Lith., Latv. dialectal <i>da</i> - ²⁰
<i>iz-</i> ‘out of’	Lith. <i>iš-</i> , Latv. <i>iz-</i> ‘out of’
<i>na-</i> ‘on top’; large quantity	Lith. <i>nu-</i> , Latv. <i>no-</i> ‘from top’
<i>o(b)-</i> ‘around’	<i>ap-</i> ‘around’; partly
<i>ot-</i> ‘away’	<i>at-</i> ‘towards’; in response

²⁰ Possibly a borrowing from Slavic.

Table 6 (continued)

Slavic (represented by Russian)	Baltic
<i>pre-/pere-</i> ‘across’; excess, repetition, distributivity	Lith. <i>par-</i> ‘home’, to the ground, Latv. <i>pār-</i> ‘across, home’
<i>po-</i> surface; temporal boundedness	Lith. <i>per-</i> ‘across’; excess, repetition
<i>pod-</i> ‘under’	<i>pa-</i> ‘under’; temporal boundedness
<i>pri-</i> ‘near’	Lith. <i>pri-</i> , Latv. <i>pie-</i> ‘near’
<i>pro-</i> ‘through’	Lith. <i>pra-</i> ‘through’
<i>raz-</i> ‘apart’	
<i>s-</i> ‘together’; from a surface	Lith. <i>su-</i> , Latv. <i>sā-</i> ‘together’
<i>u-</i> ‘away’	
<i>v-</i> ‘into’	Lith. <i>j-</i> , Latv. <i>ie-</i> ‘into’
<i>vy-</i> ‘out’	
<i>v(o)z-</i> ‘up’	Lith. <i>už-</i> ‘behind; up’, Latv. <i>uz-</i> ‘up’
<i>za-</i> ‘behind’; inceptive	Latv. <i>aiz-</i> ‘behind’

Although most of the Baltic and Slavic preverbs can function as applicatives, at least occasionally, only for a subset of them are the applicative uses prominent and productive. Those are, in particular, Slavic *iz-*, Baltic *iš-/iz-*, Slavic *vy-*, Slavic *o(b)-*, Baltic *ap-*, Slavic *pre-/pere-*, Baltic *per-*, Baltic *pri-/pie-*, Slavic *pro-*, Lithuanian *pra-* and Slavic *za-*, Baltic *už-/uz-*. (Semantically, these correspond to the Group-II applicativizing prefixes in German and to some of the applicativizing particles in Hungarian; see §§ 3.1 and 5.1, respectively.) Each of these preverbs is fairly polysemous and introduces arguments with a variety of semantic roles. Besides that, there is a number of more specialized applicative uses of preverbs occurring in individual languages or sub-branches (e.g., *nad-* ‘surpass’ in South Slavic, see § 4.3).

Preverbs do not show much allomorphy and most of it is due to (morpho)phonologically conditioned sandhi. The general rule (apart from some lexicalized exceptions) is that prefixed verbs inflect exactly like their simplex counterparts. A notable exception to this consists in the reflexive verbs in Lithuanian, which attach the reflexive affix at the right edge of the word when unprefixed (e.g., *juokti-s* ‘laugh’) and immediately before the root when prefixed (e.g., *pra-si-juokti* ‘burst into laughter’); this rule is sensitive to the presence of any prefix regardless of its function. Another and more important morphological complication is due to the fact that prefixes typically perfectivize verbs, which affects the range of contexts they occur in and partly also their paradigms (on this, see e.g., Wiemer and Seržant 2017 and references therein). Thus, in North Slavic, imperfective verbs (including the vast majority of simplex verbs) have synthetic present and past tenses and a periphrastic future, while perfective verbs (mostly formed via prefixation) have a synthetic future (formally identical to the present) and past tenses and do not form periphrastic futures, see Table 7.

Table 7: Tense paradigms of simplex (imperfective) and prefixed (perfective) verbs in Polish (Swan 2002: 270).

	Imperfective	Perfective
Past	<i>писа́łem</i> ‘I was writing, I wrote’	<i>написа́łem</i> ‘I wrote (to the end)’
Present	<i>пи́шę</i> ‘I am writing, I write’	—
Future	<i>бе́де писа́л</i> ‘I will write, I will be writing’	<i>напи́шę</i> ‘I will write (to the end)’

In South Slavic and Baltic, the paradigms of simplex and prefixed verbs are more symmetrical. Besides that, since prefixed perfective verbs are not allowed in durative/progressive contexts, and, at least in the eastern Slavic languages, in most habitual contexts as well, in order to express the lexical content of a prefixed verb in imperfective contexts, the so-called secondary imperfective is usually productively derived by suffixation, see (35) and (36).²¹

(35) Russian

rabotat ‘work’ (IPFV) → *za-rabotat* ‘earn’ (PFV) → *za-rabat-yva-t* ‘earn’ (IPFV)

(36) Lithuanian

bėgti ‘run’ (IPFV) → *per-bėgti* ‘run across’ (PFV) → *per-bėg-inė-ti* ‘run across’ (IPFV)

4.2 Syntax

Preverbs in Slavic and Baltic mainly function as either X-applicatives or P-applicatives; D-applicatives are rare. X-applicatives involve the spatial meanings of preverbs in combination with base verbs not denoting displacement. Such preverbs introduce arguments expressing the landmark of real or metaphorical motion, which are normally excluded with simplex verbs, see (37) and (38).

(37) Lithuanian (CCL)

puslap-į *į* *Latvij-os* *oper-os* *istorij-ą*
 page-SG.ACC in Latvia-SG.GEN opera-SG.GEN history-SG.ACC
į-raši-au.
 APPL-write.PST-1SG
 ‘I added (lit. wrote-in) a page into the history of Latvian opera.’

²¹ On the multiple functions of Slavic aspects and their inter-Slavic variation, see, for instance, Dickey (2000) and Fortuin and Kamphuis (2015). For a broader picture including Baltic, see Arkadiev (2014, 2015).

(38) Russian (Biskup 2017: 21)

- a. *On mērz (*v ajsberg).*
 3[SG.M.NOM] freeze[PST.SG.M] into iceberg
 ‘He was cold (*in an iceberg).’
- b. *On v-mērz v ajsberg.*
 3[SG.M.NOM] APPL-freeze[PST.SG.M] in iceberg
 ‘He froze into an iceberg.’

A case of X-applicative with a non-spatial meaning is the Slavic construction consisting of the preverb *do-* and the reflexive/middle marker (which is a suffix in East Slavic and an enclitic elsewhere), one of whose meanings is the acquisition of an object or property (often metaphorical, see Oertle 2016: 143–144). In Russian the object is usually expressed in a prepositional phrase (39), but in Polish and some other languages (see, e.g., Richardson 2007: 81–83) the bare genitive is possible (40) (accusative is ruled out for reflexive verbs).

(39) Russian (RNC)

- Ja ne mog-u do n-eě do-kriča-t'-sja.*
 1SG.NOM NEG can-PRS.1SG till 3-SG.F.GEN APPL-shout-INF-RFL
 ‘I can’t get her attention by shouting (because she cannot hear me).’

(40) Polish (Przybylska 2006: 62)

- Do-służy-t=się stopni-a pułkownik-a.*
 APPL-serve-PST[SG.M]=RFL rank-SG.GEN colonel-SG.GEN
 ‘He rose (lit. served) to the rank of colonel.’

P-applicatives predominantly show various non-spatial meanings (to be discussed in greater detail in § 4.3). With intransitive base verbs, such preverbs can either add a new argument expressed as a direct object, (41)–(42), or promote an indirect or oblique object to direct object status, (43)–(44).

(41) Bulgarian

- a. *Măž-ăt rabot-i.*
 man[SG]-DEF.SG.M work-PRS.3SG
 ‘The man works.’
- b. *Njama măž, koj-to da ja nad-rabot-i.*
 NEG.exist man[SG] what-REL SBJV 3SG.F.ACC APPL-work-PRS.3
 ‘No man can overwork her.’²²

²² Source: <http://old.segabg.com/article.php?id=221116>, accessed 7 November 2021.

(42) Lithuanian

- a. *Aš aug-au.*
1SG.NOM grow-PST.1SG
'I was growing.'
- b. *Aš iš-aug-au uniform-os keln-es.*
1SG.NOM APPL-grow-PST.1SG uniform-SG.GEN trousers-PL.ACC
'I outgrew the uniform's trousers.' (CCL)

(43) Czech (CNC)

- a. *Vlád-l-i <...> svět-ov-ým moř-ím.*
rule-PST-PL.M world-ADJZ-PL.DAT sea-PL.DAT
'They ruled . . . in the world's seas.'
- b. *Snáží-m se o-vlád-nou-t svoj-e vzrušen-í.*
try-PRS.1SG RFL.ACC APPL-rule-INF RFL.POSS-SG.N.ACC excitement-SG.ACC
'I am trying to take control over my excitement.'

(44) Lithuanian (CCL)

- a. *Labai daug galvoj-au apie jūs-ų žodži-us.*
very much think-PST.1SG about 2PL-GEN word-PL.ACC
'I thought about your words quite a lot.'
- b. *Ap-galvoj-au j-o žodži-us.*
APPL-think-PST.1SG 3-SG.M.GEN word-PL.ACC
'I thought his words over.'

Applicatives can also attach to zero-place verbs, at least marginally (45).

(45) Lithuanian

- a. *Jau tem-o.*
already grow_dark-PST.3
'It already was growing dark.' (CCL)
- b. *Mus ap-tem-o toli nuo nam-ų.*
1PL.ACC APPL-grow_dark-PST.3 far from house-PL.GEN
'It grew dark over us when we were far from home.' (Kozhanov 2015: 109)

With transitive base verbs, applicative preverbs may either add a new P-argument with a concomitant demotion (46) or elimination (47) of the original P, or rearrange the arguments promoting an oblique object of the BC to direct object in the AC and demoting the original P to an oblique (48).

(46) Lithuanian (CCL)

- a. *J-ie sėj-o griki-us.*
 3-SG.M.NOM sow-PST.3 buckwheat-PL.ACC
 'They sowed buckwheat.'
- b. *Pernai aštuonet-ą hektar-ų griki-ais už-sėj-o.*
 last_year eight-SG.ACC hectare-PL.GEN buckwheat-PL.INS APPL-SOW-PST.3
 'Last year, they sowed eight hectares with buckwheat.'

(47) Russian (RNC)

- a. *On-a u-kra-l-a²³ u menj-a*
 3-SG.F.NOM PVB-steal-PST-SG.F at 1SG-GEN
zlot-uju cep-očk-u!
 golden-SG.F.ACC chain-DIM-SG.ACC
 'She stole a golden necklace from me!'
- b. *Tjuring-a obo-kra-l odin iz*
 T-SG.ACC APPL-steal-PST[SG.M] one[SG.M.NOM] from
j-ego ljubovnik-ov
 3-SG.M.GEN lover-PL.GEN
 'Turing was robbed by one of his lovers.'

(48) Russian (RNC)

- a. *Ego žen-a dari-l-a mam-e*
 3.SG.M.GEN wife-SG.NOM give_as_present-PST-SG.F mother-SG.DAT
plat'j-a i tufl-i.
 dress-PL.ACC and shoe-PL.ACC
 'His wife used to give (my) mother dresses and shoes as presents.'
- b. *Otec ščedro o-dari-l*
 father[SG.NOM] generously APPL-give_as_present-PST[SG.M]
ix zlot-om, serebr-om i drug-imi dar-ami.
 3.PL.ACC gold-SG.INS silver-SG.INS and other-PL.INS gift-PL.INS
 'Their father had given them many gifts of silver and gold and articles of value.'²⁴

Some of the preverbs in their spatial meanings can work alternatively as P-applicatives and as markers of oblique registration leaving the coding of the landmark intact, often with subtle differences in meaning (see § 4.3). This is especially characteristic of Slavic *pre-/pere-*, Lithuanian *per-*, Latvian *pār-* 'across, through' (49), Slavic *pro-/pre-*, Baltic

²³ The preverb *u-* has a purely perfectivizing function here and does not affect argument structure.

²⁴ Source: Old Testament, 2 Chronicles 21:3, English version quoted after <https://www.biblegateway.com/passage/?search=2%20Chronicles+21&version=NIV>, accessed 19 February 2022.

pra- ‘passing by, through’ and Slavic *o(b)-*, Baltic *ap(i)-* ‘around’, but other preverbs may behave in this way in individual languages as well, cf. Macedonian *nad-* ‘over’ (50), Czech *pod-* ‘under’ (Oertle 2016: 57) or Lithuanian *pri-* ‘approaching’ (Kozhanov 2016: 372–374).

(49) Lithuanian (CCL)

- a. *J-i per-ėj-o gatv-ę.*
 3-SG.F.NOM APPL-go-PST.3 street-SG.ACC
 ‘She crossed the street.’
- b. *J-is per-ėj-o per gatv-ę.*
 3-SG.M.NOM OBLREG-go-PST.3 over street-SG.ACC
 ‘He crossed (lit. went across) the street.’

(50) Macedonian (Mitkovska and Bužarovska 2012: 138)

- a. *Eden helikopter ja=nad-let-a zgrad-a-t-a.*
 one[SG.M] helicopter[SG] 3SG.F.ACC=APPL-fly-AOR.3SG building-SG-DEF-SG.F
- b. *Eden helikopter nad-let-a nad zgrad-a-t-a.*
 one[SG.M] helicopter[SG] OBLREG-fly-AOR.3SG over building-SG-DEF-SG.F
- Both: ‘A helicopter flew over the building.’

When combined with transitive verbs of displacement, the aforementioned preverbs normally do not affect the encoding of the base P-argument (51a–b). An exception to this rule consists in metaphorical uses of the preverb *ob-* ‘around’ such as shown in (51c), where the resulting verb denotes the trajectory of the person’s gaze over some object or spatial region encoded as a direct object, the abstract entity undergoing metaphorical motion (‘eyes’, ‘gaze’) being expressed as an instrument.

(51) Russian (RNC)

- a. *Rodžer vė-l nas po svo-im polj-am.*
 R.[SG.NOM] lead-PST[SG.M] 1PL.ACC along RFL.POSS-PL.DAT field-PL.DAT
 ‘Roger led us through his fields.’
- b. *Potom on ob-vė-l nas vokrug zamk-a.*
 afterwards 3[SG.M.NOM] APPL-lead-PST[SG.M] 1PL.ACC around castle-SG.GEN
 ‘Afterwards he showed us around the castle.’
- c. *Ver-a ob-ve-l-a glaz-ami komnat-u.*
 V-SG.NOM APPL-lead-PST-SG.F eye-PL.INS room-SG.ACC
 ‘Vera looked around the room.’

The same pattern is observed with non-motion base verbs, where the landmark is also promoted to direct object (52).

(52) Russian

- a. *Ja po-sadi-l²⁵ derev'j-a vokrug prud-a.*
 1SG.NOM PVB-plant-PST[SG.M] tree-PL.ACC around pond-SG.GEN
 'I planted trees around the pond.'
- b. *Ja ob-sadi-l prud derev'j-ami.*
 1SG.NOM APPL-plant-PST[SG.M] pond[SG.ACC] tree-PL.INS
 'I surrounded the pond with trees.'

As already mentioned, D-applicatives are rare. They are more frequently attested in Latvian, where, for instance, the landmark introduced by the prefix *pie-* 'approaching' can be marked either by the corresponding preposition or by the dative (53), but not by the accusative (Holvoet and Nau 2016: 24).

(53) Latvian (based on Holvoet and Nau 2016: 24–25)

- Viņ-š pie-gāj-a pie plaukt-a / plaukt-am.*
 3-SG.M.NOM APPL-go.PST-3 to shelf-SG.GEN shelf-SG.DAT
 'He walked to the shelf.'

Likewise, the landmark of motion verbs prefixed with *ap-* 'around' in Latvian can be expressed not only by the prepositional phrase and by the bare accusative, but also by the dative, with no difference in meaning (54).

(54) Latvian (Holvoet and Nau 2016: 24)

- Viņ-a ap-gāj-a ap māj-u / māj-u / māj-ai.*
 3-SG.F.NOM APPL-go.PST-3 around house-SG.ACC house-SG.ACC house-SG.DAT
 'She walked around the house.'

In Slavic, the rare D-applicatives are exemplified by the comitative use of the East Slavic preverb *pod-* and West and South Slavic preverb *pri-*, attested with a very limited class of verbs denoting sound emission (Oertle 2016: 236, 267–268), cf. parallel examples from Russian and Bulgarian in (55).

(55) Russian / Bulgarian (RNC parallel corpus)

- a. *Pod-pe-va-ja orkestr-u, Varj-a tixon'ko*
 APPL-sing-IPFV-CVB orchestra-SG.DAT V-SG.NOM quietly
za-tjanu-l-a. . .
 PVB-draw-PST-SG.F

25 The preverb *po-* is purely perfectivizing here.

- b. *Pri-glas-ja-jki na orkestär-a, Varja tixičko*
 APPL-sing-IPFV-CVB to orchestra-DEF.M.OBL V. quietly
za-pri-pjav-a. . .
 PVB-PVB-sing-AOR.3SG
 Both: 'Joining the orchestra, Varja quietly started singing. . .'

In most cases the AppP introduced by the P-applicatives shows all the syntactic properties of a regular direct object: the ability to be promoted to subject in passives (56), conversion of the accusative to the genitive under negation in East Slavic, Polish, Slovene and Lithuanian (on this see Pirnat 2015, Arkadiev and Kozhanov forthcoming) (57), and cross-referencing by bound pronominals (known as “clitic doubling”, Kalluli and Tasmowski eds. 2008) in Bulgarian and Macedonian, see (50b) above.

(56) Russian (RNC)

- a. *My pere-š-l-i most.*
 1PL.NOM APPL-go-PST-PL bridge[SG.ACC]
 'We crossed (lit. over-went) the bridge.'
 b. *Most pere-jd-ën.*
 bridge[SG.NOM] APPL-go-PST.PP[SG.M.NOM]
 'The bridge has been crossed.'

(57) Lithuanian

- a. *Už-dirb-au t-uos pinig-us.*
 APPL-work-PST.1SG DEM-PL.M.ACC money-PL.ACC
 'I have earned that money.'
 b. *<. . .> men-o žmon-ės didelį pinig-ėlių*
 art-SG.GEN people-PL.NOM big-PL.GEN money-DIM-PL.GEN
ne-už-dirb-a.
 NEG-APPL-work-PRS.3
 'artists do not earn much money.' (CCL)

Things are more complicated in the case of P-applicatives introducing phrases that express distance and temporal duration (the so-called perdurative), mainly Slavic *pro-/pre-* and Lithuanian *pra-*, see, for instance, Letučij (2012: 133–136) on Russian, Žaucer (2009: 146–164, 2012) on Slovene and Kozhanov (2016: 376–380, 382–385) on Lithuanian. First, distance and temporal phrases in the bare accusative case freely combine with simplex verbs (58a/59a), so the prefixes simply make these optional adjuncts obligatory (58b/59b).

(58) Russian

- a. *Im priš-l-o-s' beža-t'*
 3.PL.DAT get.to-PST-SG.N-RFL run-INF
(cel-yj kilometr).
 whole-SG.M.ACC kilometer[SG.ACC]
 'They had to run (a whole kilometer).'
- b. *Im priš-l-o-s' pro-beža-t'*
 3.PL.DAT get.to-PST-SG.N-RFL APPL-run-INF
 *(*cel-yj kilometr).*
 whole-SG.M.ACC kilometer[SG.ACC]
 'They had to cover a whole kilometer running.' (RNC)

(59) Lithuanian

- a. *Gyven-au Vilni-uje (dvidešimt dvej-us met-us).*
 live-PST.1SG Vilnius-SG.LOC twenty two-PL.M.ACC year-PL.ACC
 'I lived in Vilnius (for twenty two years).'
- b. *(*Dvidešimt dvej-us met-us*) *pra-gyven-au Vilni-uje.*
 twenty two-PL.M.ACC year-PL.ACC APPL-live-PST.1SG Vilnius-SG.LOC
 'I have been living in Vilnius for twenty two years.' (CCL)

Second, such applicatives freely attach to transitive base verbs, which retain their original direct objects (60a/61a), as well as to intransitive reflexive verbs, which retain their reflexive marking thus remaining intransitive (60b/61b).

(60) Russian (RNC)

- a. *A u nas čelovek možet pro-nosi-t' odn-u par-u vs-e*
 APPL-wear-INF one-SG.F.ACC pair-SG.ACC all-PL.ACC
četyr-e sezon-a.
 four-PL.ACC season-SG.GEN
 'At our place one can wear a single pair [of shoes] during all four seasons.'
- b. *Ja tam pro-uči-l-a-s' poltor-a god-a.*
 1SG.NOM there APPL-study-PST-SG.F-RFL one_and_a_half-ACC.M year-SG.GEN
 'I studied there for one and a half years.'

(61) Lithuanian

- a. *Srov-ė . . . nu-neš-ė j-į žemyn*
 current-SG.NOM APPL-carry-PST.3 3-SG.M.ACC down
kel-is šimt-us metr-ų.
 several-PL.M.ACC hundred-PL.ACC meter-PL.GEN
 'The current . . . carried him down for several hundred meters.' (CCL)

- b. *Kamuol-ys nu-si-rit-o du metr-us.*
 ball-SG.NOM APPL-RFL-roll-PST.3 two[M.ACC] meter-PL.ACC
 ‘A ball rolled down for two meters.’ (Kozhanov 2016: 378)

However, such distance and temporal phrases can undergo the genitive of negation rule (62) and are at least marginally passivizable (63), testifying to their hybrid status between obligatory adjuncts and full-fledged direct objects.

- (62) Slovene (Žaucer 2012: 341)

Juš v ječ-i ni pre-sede-l tr-eh let.
 J.[SG.NOM] in jail-SG.LOC NEG APPL-sit-PST[SG.M] three-GEN year[PL.GEN]
 ‘Juš did not spend three years in jail.’

- (63) Lithuanian (CCL)

po pra-šok-t-os nakt-ies
 after APPL-dance-PST.PP-SG.F.GEN night-SG.GEN
 ‘after a night of dancing (lit. danced-through night)’

P-applicativization of transitive verbs, apart from the distance and temporal cases just discussed, results in either the demotion of the original P to peripheral status or its complete elimination, see (46)–(49) above. The fate of the P of the BC apparently depends on the semantics of the AC, for instance, on whether the original argument can be construed as an instrument, means or spatial landmark of the new event. However, even in some cases where such construal would be possible, the original P still cannot be expressed in the AC, being generic and backgrounded (64).

- (64) Lithuanian

- a. *J-i skalbi-a drabuži-us.*
 3-SG.F.NOM wash-PRS.3 clothes-PL.ACC
 ‘She washes clothes.’
- b. *J-i ap-skalbi-a savo vyr-q (*drabuži-ais).*
 3-SG.F.NOM APPL-wash-PRS.3 RFL.POSS husband-SG.ACC clothes-PL.INS
 ‘She washes (clothes and stuff) for her husband.’ (CCL)

4.3 Semantics

Most X-applicatives introduce landmarks of the spatial relations roughly outlined in Table 6 above. Some of the spatial preverbs are Goal-oriented, for instance: Slavic *v-* ‘into’, *na-* ‘on’, *pod-* ‘under; close to’, *vz-* ‘up’, *za-* ‘behind; up’, or Lithuanian *į-* ‘into’, *už-* ‘behind’. Others are Source-oriented, for instance: Slavic *vy-* ‘out’, *ot-* ‘from’, *u-* ‘from’, *s-/z-* ‘from above, off’, or Lithuanian *iš-* ‘out’, *nu-* ‘from above, off’. Interestingly, in

accordance with the so-called “Goal bias” (e.g., Stefanowitsch and Rohde 2004), verbs with Source-oriented preverbs can combine with expressions denoting Goals, see (65).

(65) Russian

- a. *vy-pisa-t' slov-o iz slovarj-a*
 APPL-write-INF word-SG.ACC out dictionary-SG.GEN
 ‘copy (lit. out-write) a word from a dictionary’
- b. *vy-pisa-t' slov-o v tetrad'*
 APPL-write-INF word-SG.ACC in notebook[SG.ACC]
 ‘copy (lit. out-write) a word into a notebook’

Those preverbs that can introduce the landmark both as a prepositional phrase and as an accusative object in their spatial functions deserve a special discussion. As mentioned above, the most common of these are the Slavic *pre-/pere-*, Lithuanian *per-*, Latvian *pār-* ‘across, through’, Slavic *pro-/pre-*, Baltic *pra-* ‘passing by, through’ and Slavic *o(b)-*, Baltic *ap(i)-* ‘around’. While with the ‘across’-prefixes the two types of encoding seem to be synonymous, see (50) above, the situation with the other two prefixes is more intricate. With a prepositional complement, the verbs with *ob-/ap-* and *pro-/pra-* express the purely spatial meaning of, respectively, motion around (66a) or past (67a) the landmark, while with an accusative complement, in addition to the same meaning (66b) and (67b), these verbs tend to denote motion covering the whole area of the landmark (66c) or passing through it (67c).²⁶

(66) Russian (RNC)

- a. *My medlenno obo-š-l-i vokrug dom-a.*
 1PL.NOM slowly PVB-go-PST-PL around house-SG.GEN
 ‘We slowly went around the house.’
- b. *My obo-š-l-i dom <. . .>*
 1PL.NOM APPL-go-PST-PL house[SG.ACC]
v nēm okazalas' eščë odna dver'.
 ‘We went around the house . . . and found another door [at the other side].’
- c. *My obo-š-l-i dom.*
 1PL.NOM APPL-go-PST-PL house[SG.ACC]
Xozjain pokazal nam svoi masterskie.
 ‘We passed through the whole house. The landlord showed us his workshops.’

²⁶ Cf. observations about the Croatian *o(b)-* in Šarić and Mikolić (2015: 260–261); on Latgalian *ap-*, cf. Svilans-Dennis (1982: 43–45).

(67) Lithuanian (CCL)

- a. *Mači-au, kaip j-is pra-važiav-o pro mano nam-us.*
 see.PST-1SG how 3-SG.M.NOM PVB-drive-PST.3 by my house-PL.ACC
 ‘I saw him drive past my house.’
- b. *Stot-į <...> pra-važiav-o <...> karin-is traukin-ys.*
 station-SG.ACC APPL-drive-PST.3 military-SG.M.NOM train-SG.NOM
 ‘A military train passed the station.’
- c. *Be sustojim-o pra-važiav-o-me Vilni-ų.*
 without stopping-SG.GEN APPL-drive-PST-1PL V-SG.ACC
 ‘We passed through Vilnius without stopping.’

Most of the non-spatial preverbs functioning as P-applicatives are fairly polysemous; the overview below is based largely on Oertle (2016) for Slavic and Kozhanov (2016) for Lithuanian.

(i) Temporal (perdurative): Slavic *ot-*, Lithuanian *at-* ‘spend a period of time V-ing’, often with additional nuances such as ‘as an obligation’ or ‘as punishment’, for instance: Russian *rabotat* ‘work’ ~ *otrabotat* ‘work for a period of time’, *služit* ‘serve’ ~ *otslužit* ‘serve for a period of time (e.g., in the army)’, *sidet* ‘sit’ ~ *otsidet* ‘serve a term in prison’, Polish *czekać* ‘wait’ ~ *odczekać* ‘wait for some time’, Serbian *stajati* ‘stand’ ~ *odstajati* ‘spend time standing’, Lithuanian *kalėti* ‘stay in prison’ ~ *atkalėti* ‘serve a term in prison’, also *verkti* ‘cry’ ~ *išverkti* ‘spend time crying’. The range of objects such verbs combine with is not limited to temporal periods and by metonymy includes activities that “fill” these periods (68) and even wages or prizes (69).

(68) Serbian (Šarić and Tchizmarova 2013: 25–26)

- Mora-l-i=smo od-sjedi-ti još jedn-o*
 must-PST-PL.M=AUX.PRS.1PL APPL-sit-INF yet one-SG.N.ACC
dosadn-o predavanj-e.
 boring-SG.N.ACC lecture-SG.ACC
 ‘We had to sit through another boring lecture.’

(69) Russian (RNC)

- On=by ot-rabota-l svoj-u*
 3.SG.M.NOM=SBJV APPL-WORK-PST.SG.M RFL.POSS-SG.F.ACC
Nobel-evsk-uju premij-u
 Nobel-ADJZ-SG.F.ACC prize-SG.ACC
 ‘He (Barack Obama) would work for his Nobel prize.’

The most productive perdurative preverbs are Russian *pro-*, West and South Slavic *pre-* (see, e.g., Przybylska 2006: 158–161 on Polish; Oertle 2016: 251–252 on Slavic in general), Lithuanian *pra-*, see above.

(ii) Covering and filling: Slavic *o(b)-* and *za-*, Lithuanian *ap-*, *pri-*, *su-* and *už-*, see (70)–(71):

(70) Russian

- a. *On-i stroi-l-i cerkv-i v gorod-e.*
 3-PL.NOM build-PST-PL church-PL.ACC in city-SG.LOC
 ‘They built churches in the city.’
- b. *On-i <...> za-stroi-l-i cerkvj-ami ves’ gorod.*
 3-PL.NOM APPL-build-PST-PL church-PL.INS all[SG.M.ACC] city[SG.ACC]
 ‘They ... built churches all over the city.’ (RNC)

(71) Lithuanian (CCL)

- a. *Lauke snig-o.*
 outside snow-PST.3
 ‘It was snowing outside.’
- b. *[Aš] buv-au su-ly-t-a, su-snig-t-a.*
 1SG.NOM be-PST.1SG APPL-rain-PST.PP-SG.F.NOM APPL-snow-PST.PP-SG.F.NOM
 ‘I have been rained and snowed upon.’

(iii) Distributive, with the AppP denoting a mass or a set of objects: Slavic *o(b)-*, Lithuanian *ap-* (72).

(72) Russian

- a. *Po-zvon-i student-am.*
 PVB-ring-IMP[2SG] student-PL.DAT
 ‘Phone the students.’
- b. *Ob-zvon-i student-ov.*
 APPL-ring-IMP[2SG] student-PL.ACC
 ‘Phone all the students.’

(iv) Overtaking, surpassing and outperforming (compare the English *out*-applicatives in § 2.3): Slavic *pre-/pere-* and less productively *o(b)-*, in Czech and Slovak also *pred-*, Lithuanian *ap-* and *per-*: Russian *igrat* ‘play’ ~ *obygrat* ‘beat in a game’, *kričat* ‘shout’ ~ *perekričat* ‘shout louder than’, Slovak *predbehnúť* ‘overtake while running’, Lithuanian *lošti* ‘play (cards)’ ~ *aplošti* ‘beat in a card game’, *galėti* ‘be able to’ ~ *pergalėti* ‘win, overcome’. In Lithuanian this meaning can also be expressed by *iš-* (e.g., *augti* ‘grow’ ~ *išaugti* ‘outgrow’) and *pra-* (*gyventi* ‘live’ ~ *pragyventi* ‘outlive’). The most productive ‘surpass’-applicative is the South Slavic prefix *nad-*, see Mitkovska and Bužarovska (2012: 145–146), Tchizmarova (2012: 242–244) and Oertle (2016: 179), for instance: Macedonian *nadpee* ‘outsing’, Serbo-Croat *nadglasavati* ‘outvote’, Bulgarian *nadlāža* ‘lie more than’.

(v) Creation of an object: Slavic *vy-*, *iz-*, Lithuanian *iš-*, also *su-*, cf. Russian *vydumat'*, Bulgarian *ižmislja*, Lithuanian *sugalvoti* 'devise, invent', from the base verbs meaning 'think'; Russian *rezat'* 'cut' ~ *vyrezat'* 'carve'; also Slavic *pro-*, Lithuanian *pra-* with the created object being an aperture or way (Russian *rubit'* 'chop' ~ *prorubit'* 'dver' 'cut a door', Lithuanian *minti* 'trod' ~ *praminti taką* 'trod a path'). Besides that, the Slavic preverb *na-*, whose prominent function is cumulative (Filip 2000; Žaucer 2009; Oertle 2016: 169–171), derives creation verbs with the meaning of excessive activity (73).

(73) Russian (RNC)

Von on-a kak ščëk-i na-e-l-a.
 there 3-SG.F.NOM how cheek-PL.ACC APPL-eat-PST-SG.F
 'Look at the cheeks she's got by eating too much.'

(vi) Acquisition of an object (compare the German *er-*applicatives in § 3.2): Slavic *vy-*, *iz-*, *za-*, *na-*, Lithuanian *iš-*, *su-*, *už-*, *pri-*, for instance: Russian *molit'* 'pray' ~ *vymolit'* 'obtain by praying', *rabotat'* 'work' ~ *zarabotat'* 'earn', Czech *ženit* 'marry' ~ *vyženit* 'acquire through marriage', Macedonian *prosi* 'ask' ~ *isprosi* 'get by (repeated) asking', Upper Sorbian *nawajchtarich* 'I have earned (it) as a watchman' (Oertle 2016: 169 quoting Faßke and Michalk 1981: 116), Lithuanian *kovoti* 'fight' ~ *iškovoti* 'conquer', *ieškoti* 'look for' ~ *suieškoti* 'find'²⁷, Lithuanian *prakaituoti* 'sweat' ~ *užprakaituoti* 'earn by hard work' (Kozhanov 2015: 252–253), *gyventi* 'live' ~ *prigyventi* 'obtain during one's lifetime; get a child'. In Slovene this meaning is also productively expressed by *pri-* (Oertle 2016: 46), cf. *prikvartati* 'win in a card game'.

(vii) Elimination of an object: Slavic *vy-*, *iz-*, *s-*, *za-*, Lithuanian *iš-*, *nu-*, *už-*, for instance: Russian *trjasti* 'shake' ~ *vytrjasti* 'remove by shaking', *plakat'* 'cry' ~ *vyplakat'* 'relieve by tears', *teret'* 'rub' ~ *steret'* 'wipe off', *dut'* 'blow' ~ *zadut'* 'blow out', Lithuanian *loti* 'bark' ~ *išloti* 'drive away by barking', *lyti* 'rain' ~ *nulyti* 'wash away (of rain)', *lieti* 'pour liquid' ~ *užlieti* 'extinguish'. The prefixes Slavic *pro-/pre-* and Lithuanian *pra-* create verbs with a meaning of losing something as a result of drinking or gambling, for instance: Russian *pit'* 'drink' ~ *propit'* 'spend on drinking', Lithuanian *kortuoti* 'play cards' ~ *prakortuoti* 'lose by playing cards'. A meaning related to this is the one of missing something, cf. Czech *zaspát* 'miss by sleeping', Russian *progljadet'* 'overlook'.

(viii) Damage to the object as a result of the activity (compare the German verbs with the prefixes *ver-* and *zer-*, see § 3.2): various preverbs whose choice is often determined by the lexical semantics of the verb (see, e.g., Oertle 2016: 189–190, 204). The AppP can be the subject's own body part, cf. Lithuanian *rėkti* 'shout' ~ *prarėkti balsą* 'shout one's voice hoarse', Russian *ležat'* 'lie' ~ *otležat'* *bok* 'make one's side numb by lying on it', *igrat'* 'play' ~ *pereigrat'* *ruku* 'overplay one's hand'; or artifacts and persons,

27 In this case the AppP is marked by the accusative, while in the BC it is in the genitive.

cf. Lithuanian *sėdėti* 'sit' ~ *susėdėti suknelę* 'rumple dress by sitting', *vogti* 'steal (an object)' ~ *apvogti* 'rob (a person or a place)', Russian *est'* 'eat' ~ *ob'est* 'eat at somebody's expense', *govorit'* 'speak' ~ *ogovorit'* 'slander', *xlopat'* 'clap' ~ *zaxlopat'* 'clap off (speech or orator)', *sčitat'* 'count' ~ *obsčitat'* 'shortchange'.

(ix) Exhaustion of surface or means: Slavic *iz-*, Lithuanian *iš-*, for instance: Russian *pisat'* 'write' ~ *ispisat'* *stranicu* 'to cover a whole page with writing', *ispisat'* *ručku* 'to exhaust a pen by writing', Lithuanian *piešti* 'draw' ~ *išpiešti* 'cover with drawings, decorate'. See also Section 3.3 for German parallel *be-* and *ver-* verbs, as well as Example (96) from Hungarian.

(x) Object that the activity is directed at without literally affecting it: mainly Slavic *o(b)-*, Baltic *ap-*, for instance: Russian *govorit'* 'speak' ~ *obgovorit'* 'discuss', Polish *plakać* 'cry' ~ *opłakać* 'mourn over'.

(xi) Object affected by speech or magic: Slavic *za-*, Lithuanian *už-*, cf. Russian *boltat'* 'chatter' ~ *zaboltat'* 'overwhelm with one's chatter', *koldovat'* 'perform or practice magic' ~ *zakoldovat'* 'cast spell over an object or person', Lithuanian *kalbėti* 'speak' ~ *užkalbėti* 'cast spell', also *juoktis* 'laugh' (reflexive) ~ *išjuokti* 'deride'.

(xii) Object or person defended: Slavic *za-*, Lithuanian *už-*, Lithuanian *tarti* 'speak' ~ *užtarti* 'intercede, protect by speech', *stoti* 'stand up' ~ *užstoti* 'defend' (74a), which is related to the spatial meaning of 'screening' (74b).

(74) Lithuanian (CCL)

- a. *J-ie* <...> *už-stoj-a* <...> *t-uos*, *kuri-uos* *mėg-sta*.
 3-PL.M.NOM APPL-stand-PRS.3 DEM-PL.M.ACC which-PL.M.ACC like-PRS.3
 'They defend those whom they like.'
- b. *nugar-a* *už-stoj-u* *lang-q*.
 back-SG.INS APPL-stand-PRS.1SG window-SG.ACC
 'I [stand up in front of her and] hide the window with my back.'

(xiii) Object whose consumption is facilitated by the activity: Slavic *za-*, Lithuanian *už-*. The situations described by such verbs are, for instance, those of taking medicines and drinking water immediately afterwards (75b), or eating something after drinking alcohol (76a); metaphorically, such verbs describe eating or drinking something as a means of dealing with emotionally loaded events (76b). The object actually consumed, which would be expressed as the P in the BC (75a), is marked by the instrumental case (75b).

(75) Lithuanian

- a. *Gėri-au* *vanden-į*.
 drink-PST.1SG water-SG.ACC
 'I was drinking water.'

- b. *Tr-is piliul-es už-gèri-au vandeni-u.*
 three-PL.ACC pill-PL.ACC APPL-drink-PST.1SG water-SG.INS
 'I washed down three pills with water.' (CCL)

(76) Russian (RNC)

- a. *za-ed-a-ja vodk-u zelën-ym luk-om*
 APPL-eat-IPFV-CVB vodka-SG.ACC green-SG.INS onion-SG.INS
 'having vodka with spring onions'
- b. *I vy poroj za-jed-aj-ete neudač-u konfet-k-oj. . .*
 and 2PL.NOM sometimes APPL-eat-IPFV-PRS.2PL failure-SG.ACC sweet-DIM-SG.INS
 'You too sometimes soothe your failures by taking a sweet. . .'

Many preverb+verb combinations are polysemous, their exact interpretation being determined by the type of the object, for instance: Russian *igrat* 'play' ~ *razygrat* 'obidu' 'simulate an offence', *razygrat* 'kartu' 'play a card', *razygrat* 'prijatelja' 'to trick a friend'.

As is evident from the list above, the cross-linguistically most common functions of applicatives, namely benefactive, comitative and instrumental, are virtually unattested in Slavic and Baltic (on the very restricted comitative-like use see [55] above).

In those cases where the AppP can be expressed in the BC either as an optional adjunct or an oblique object, the AC always has meanings related to perfectivity and telicity, that is, attainment of the result (77), total affectedness of the object, as in (72) above, or higher intensity (78).

(77) Russian

- a. *My govori-li o srok-ax.*
 1PL.NOM talk-PST-PL about deadline-PL.LOC
 'We were talking about the deadlines.'
- b. *My ob-govori-li srok-i.*
 1PL.NOM APPL-talk-PST-PL deadline-PL.ACC
 'We have discussed the deadlines (and settled them).'

(78) Russian

- a. *On-a sme-ët-sja nado mnoj.*
 3-SG.F.NOM laugh-PRS.3SG-RFL over 1SG.INS
 'She is laughing at me.'
- b. *On-a vy-sme-iva-et menja.*
 3-SG.F.NOM APPL-laugh-IPFV-PRS.3SG 1SG.ACC
 'She derides me.'

4.4 Lookalikes

Since none of the Baltic and Slavic preverbs has applicativization as its primary let alone only function, there is little reason to speak about morphological lookalikes or “*applicativa tantum*” verbs. There are numerous verbs whose argument structure is not affected by the addition of prefixes that in the same or very similar meanings applicativize other verbs, for instance, ‘complete affectedness’ (Russian *rezat* ‘cut’ ~ **zarezat** ‘stab to death’), ‘elimination’ (Russian *gnat* ‘drive’ ~ **prognat** ‘drive away’) or ‘creation’ (Lithuanian *kepti* ‘bake’ ~ **prikepti** ‘bake a lot’). In many cases this lack of applicativization is an effect of the so-called “subsumption” of the semantic contribution of the prefix by the lexical meaning of the verb (see Nübler 1990, Janda et al. 2013 and references therein). There are also cases where prefixation affects the argument structure in different ways with different verbs even when the resulting semantics are similar; cf. Russian *verit* ‘believe’ ~ **uverit** ‘persuade’ (causative) and *govorit* ‘talk’ ~ **ugovorit** ‘persuade, talk into something’ (applicative).

Still, one instance of morphological lookalikes consists in spatial preverbs combining with verbs of displacement. In such cases, the optional landmark adjuncts, which are most often expressed as prepositional phrases (the preposition frequently being related to the preverb), are rendered obligatory oblique arguments by the preverbs without affecting their coding properties, see (79)–(80).

(79) Russian

- a. *Mužčin-a nēs čemodan (v komnat-u).*
man-SG.NOM carry.PST[SG.M] suitcase[SG.ACC] in room-SG.ACC
‘The man was carrying the suitcase (into the room).’
- b. *Mužčin-a v-nēs čemodan v komnat-u.*
man-SG.NOM PVB-carry.PST[SG.M] suitcase[SG.ACC] in room-SG.ACC
‘The man carried the suitcase into the room.’

(80) Lithuanian (CCL)

- a. *Martyn-as létai lip-o laipt-ais.*
M.-SG.NOM slowly climb-PST.3 stairs-PL.INS
‘Martin slowly climbed the stairs [unclear up or down].’
- b. *Zuik-a nu-lip-o nuo dvirači-o.*
Z.-SG.NOM PVB-climb-PST.3 from bicycle-SG.GEN
‘Zuika got off the bicycle.’

With prefixed verbs, such landmark phrases are obligatory and can be omitted only if their referent is given in context, in which case they are understood as either deictically anchored (81a) or definite (81b). By contrast, with unprefixed verbs the absence of a locative phrase does not imply any definite Goal or Source of motion, see (79a) and (80a) above.

(81) Russian

a. *V-xod-i-te.*

PVB-walk-IMP-2PL

'Come in [here where the speaker is].'

b. *Tramvaj dolgo vëz eë odn-u,*

tram[SG.NOM] long.time carry.PST.SG.M 3.SG.F.ACC one-SG.F.ACC

potom vo-š-l-a eščë požil-aja par-a.

then PVB-go-PST-SG.F more elderly-SG.F.NOM couple-SG.NOM

'For a long time she was alone on the tram, then an elderly couple got on [the tram].' (RNC)

The semantic difference between the constructions with simplex and prefixed verbs in these cases is purely aspectual: the former is normally interpreted as progressive and the latter as completive.

Syntactic lookalikes include the productive addition of benefactive (in some languages also malefactive) phrases in the dative without any change to the verb's morphology, see (82)–(83); in the generative literature this phenomenon has been analyzed as applicativization (see, e.g., Gogłóza 2020).

(82) Czech (based on Janda and Townsend 2000: 71)

a. *Babičk-a u-pek-l-a dort.*

grandmother-SG.NOM PVB-bake-PST-SG.F cake[SG.ACC]

'Grandmother baked a cake.'

b. *Babičk-a nám u-pek-l-a dort.*

grandmother-SG.NOM 1PL.DAT PVB-bake-PST-SG.F cake[SG.ACC]

'Grandmother baked us a cake.'

(83) Czech (based on Janda and Townsend 2000: 71)

a. *Záplav-a z-niči-l-a dům.*

flood-SG.NOM PVB-destroy-PST-SG.F house[SG.ACC]

'The flood destroyed the house.'

b. *Záplav-a nám z-niči-l-a dům.*

flood-SG.NOM 1PL.DAT PVB-destroy-PST-SG.F house[SG.ACC]

'The flood destroyed our house (on us).'

Another case of syntactic lookalikes include argument structure alternations of the "spray/load" type, sometimes interacting with prefixation (see, e.g., Lenartaitė 2011 and Sokolova 2012), as shown in (84), where the prefix *na-* in (84a–b) is a "pure perfectivizer" compatible with the same two argument structures that are available to the simplex verb, while the prefix *po-* admits only the location-as-object frame (84c–d).

(84) Russian

- a. *(na-)maza-t'* *masl-o* *na xleb*
 PVB-smear-INF butter-SG.ACC on bread[SG.ACC]
 'to put butter on bread'
- b. *(na-)maza-t'* *xleb* *masl-om*
 PVB-smear-INF bread[SG.ACC] butter-SG.INS
 'to cover bread with butter'
- c. *po-maza-t'* *xleb* *masl-om*
 PVB-smear-INF bread[SG.ACC] butter-SG.INS
 'to cover bread with butter'
- d. **po-maza-t'* *masl-o* *na xleb*
 PVB-smear-INF butter-SG.ACC on bread[SG.ACC]
 'to put butter on bread'

5 Hungarian

5.1 Morphology

Hungarian uses verbal particles (sometimes also called preverbs in the literature) productively, many of which can change the argument structure of verbs in various constructions, as the applicative constructions show in (85b) and (86b) as compared to (85a) and (86a). There are no particles whose only function is applicativization; they all have spatial origins and their directional meaning is often present while they also have a role in determining the aktionsart and the aspectual properties of the verbal expression (Kiefer 1994; É. Kiss 2006). While the verbs in (85a) and (86a) describe unbounded activities, their counterparts with the particles involve a bounded, completed event.²⁸

(85) Hungarian

- a. *Péter nevet-ett* *János-on.* (BC)
 P. laugh-PST.3SG J.-SUP
 'Peter was laughing at John.'
- b. *Péter ki-nevet-t-e* *János-t.* (AC)
 P. APPL-laugh-PST-DEFOBJ.3SG J.-ACC
 'Peter laughed at John.'

²⁸ Hungarian verbs exhibit definiteness agreement with their object (i.e., definite objects trigger different verbal agreement markers than indefinite or bare objects; see, e.g., É. Kiss 2002), but this is orthogonal to applicativization.

(86) Hungarian

- a. *Péter úsz-ott a folyó-ban.* (BC)
 P. swim-PST.3SG the river-INE
 ‘Peter was swimming in the river.’
- b. *Péter át-úsz-t-a a folyó-t.* (AC)
 P. APPL-SWIM-PST-DEFOBJ.3SG the river-ACC
 ‘Peter swam across the river.’

Most Hungarian particles are formally (and functionally) closely related to directional postpositions or case suffixes. Etymologically, they go back to Goal-denoting postpositions or adverbs, which, in turn, originated as case-marked nouns (and some of them have grammaticalized into case suffixes; see Dékány and Hegedűs 2021 for a recent overview). Some particles have started grammaticalizing more recently and are formally identical to postpositions: (86b) and (87a) involve one such particle, namely *át* ‘across, over, through’; (87b) shows *át* occurring as a postposition (the PP is a focused adjunct).

(87) Hungarian

- a. *Péter át-úsz-ott a sziget-re.*
 P. APPL-SWIM-PST.3SG the island-SUBLAT
 ‘Peter swam over to the island.’
- b. *Péter London-on át fog New York-ba repül-ni.*
 P. L.-SUP across FUT[3SG] N.Y.-ILL fly-INF
 ‘It is via London that Peter will fly to New York.’

There is no agreement on the exact number or list of particles in the language. This is mostly due to the fact that some of them are less grammaticalized while others have proceeded further along the grammaticalization; since this has an effect on their productivity, some grammars may include more elements than others. Dékány and Hegedűs (2021) provide a representative list and description. Here, two types of particles are worth pointing out. Group A includes the oldest particles of the language, which are productive in various kinds of valency-changing patterns (see § 5.2); while they are mostly directional, they are not used as postpositions in present-day Hungarian. The particles from this group whose applicativizing function is most prominent are *be* ‘into’, *ki* ‘out’, *le* ‘down’, and *meg* ‘orig. back_{dir}, behind_{dir}’. Group B includes particles like *át* ‘over, through’ in (86)–(87) above, which are also postpositions in present-day Hungarian, and as such they select a case-marked complement. Particles from Group B started grammaticalizing later (from around the 16th century) and often co-occur with obligatory spatial arguments (which usually bear the same case they select when used as postpositions), but they are less prolific as particles, especially when it comes to introducing object arguments (see Hegedűs 2020 for a more detailed discussion). Some of such particles are: *át* ‘over, through’, *túl* ‘over, beyond’, and *végig* ‘to the end, along’.

All these common particles—whose semantics roughly corresponds to that of some of the applicativizing prefixes in German and Baltic-Slavic, see §§ 3.1 and 4.1, respectively—are summarized in Table 8.

Table 8: Main Hungarian applicativizing particles.

Group A		Group B	
<i>be</i>	‘into’	<i>át</i>	‘over, through’
<i>ki</i>	‘out’	<i>túl</i>	‘over, beyond’
<i>le</i>	‘down’	<i>végig</i>	‘to the end, along’
<i>meg</i>	< ‘back _{dir} , behind _{dir} ’		

5.2 Syntax

Hungarian applicatives are optional P-applicatives; there is no obligatory marker on the verb for introducing an argument. In neutral declarative-affirmative sentences, particles immediately precede the verb, forming one phonological unit with it.²⁹ By contrast, they occur separated from the verb in negative and interrogative sentences, or in clauses with a focused preverbal constituent.³⁰ Particles can also undergo long distance (contrastive) topicalization, whereby they can even cross clause boundaries. Their syntactic independence is the main reason for treating them as heads of phrases (i.e., they are projecting particles in the sense of Los et al. 2012). Applicative uses of various particles are possible and productive to some extent, depending on lexical factors.

Particles can transitivize verbs that are intransitive in the BC. *Át* ‘over, through’, which we have seen in (86)–(87), is one of the directional particles that also appears with verbs that do not involve (actual or metaphorical) motion. It can appear with regular activity verbs that may optionally take a case-marked non-core argument, but the AC has an obligatory direct object (which takes accusative marking when expressed as an overt NP), see (88)–(89). With speech verbs like *beszél* ‘talk’, the particle *meg* is also possible with the same arguments, with a very small difference in meaning (89).

²⁹ Verbal particles are a subset of so-called verb modifiers (all of which appear immediately before the verb in such neutral sentences). Particles are the most frequent and most lexicalized verb modifiers in the language (Kálmán 1985; É. Kiss 2002, 2006).

³⁰ Contrary to the received opinion, and not unlike some German elements (see § 3.1), preverbal elements like *be* ‘into’, *fel* ‘up’ and *ki* ‘out’ can also occur like prefixes with a limited number of verbs in a special derivational pattern, albeit without any connection to applicativization. See Hegedűs and Dékány (2017) for details.

(88) Hungarian

- a. *Péter dolgoz-ott (a könyv-é-n).* (BC)
 P. work-PST.3SG the book-POSS.3SG-SUP
 'Peter worked (on his book).'
- b. *Péter át-dolgoz-t-a a könyv-é-t.* (AC)
 P. APPL-work-PST-DEFOBJ.3SG the book-POSS.3SG-ACC
 'Peter revised his book.'

(89) Hungarian

- a. *Mari és Anna beszél-t-ek (a problémá-ról).*
 M. and A. talk-PST-3PL the problem-DEL
 'Mary and Anna talked (about the problem).'
- b. *Mari és Anna át-beszél-t-ék a problémá-t.*
 M. and A. APPL-talk-PST-DEFOBJ.3PL the problem-ACC
 'Mary and Anna discussed (all aspects of) the problem.'
- c. *Mari és Anna meg-beszél-t-ék a problémá-t.*
 M. and A. APPL-talk-PST-DEFOBJ.3PL the problem-ACC
 'Mary and Anna discussed the problem.'

Another such particle is *végig* 'to the end, along', which can appear with verbs such as *sír* 'cry' and *nevet* 'laugh', which take an optional oblique; the former verb is illustrated in (90). It can also appear with verbs like *gondol* 'think, consider', which takes an oblique argument when underived (91a) and promotes the argument to an obligatory direct object when applicativized (91b).

(90) Hungarian

- a. *Sír-t-unk (a film-en).*
 cry-PST-1PL the film-SUP
 'We cried (over the film).'
- b. *Végig-sír-t-uk a film-et.*
 APPL-cry-PST-DEFOBJ.1PL the film-ACC
 'We cried the whole time we watched the film.'

(91) Hungarian

- a. *Simon gondol-t egy jó feladat-ra.*
 S. think-PST.3SG a good task-SUBLAT
 'Simon thought of a good task.'
- b. *Simon végig-gondol-t minden feladat-ot.*
 S. APPL-think-PST.3SG every task-ACC
 'Simon considered every task.'

The particle *le* ‘down’ can applicativize verbs like *győz* ‘win (against someone)’, which can have an optional postpositional argument (92a), and also verbs such as *jár* ‘walk’ or *táncol* ‘dance’, as well as other activity verbs with which the particle adds the meaning of wearing down, depleting or using up (93).

(92) Hungarian

- a. *A csapatunk győz-ött (a másik csapat ellen).*
 the team-POSS.1PL win-PST.3SG the other team against
 ‘Our team won (against the other team).’
- b. *A csapat-unk le-győz-t-e a másik csapat-ot.*
 the team-POSS.1PL APPL-win-PST-DEFOBJ.3SG the other team-ACC
 ‘Our team defeated the other team.’

(93) Hungarian

- a. *Le-jár-t-am a cipő-m talp-á-t.*
 APPL-walk-PST-1SG the shoe-POSS.1SG sole-POSS-ACC
 ‘I got the sole of my shoes worn out by walking.’
- b. *Le-táncol-t-am néhány kiló-t.*
 APPL-dance-PST-1SG some kilogram-ACC
 ‘I danced off a few kilos.’
- c. *Le-hullámvasutaz-t-am minden jegy-et.*
 APPL-ride_roller_coaster-PST-1SG every ticket-ACC
 ‘I used up all the tickets riding the roller coaster.’

The particle *ki* ‘out’ can be used with motion verbs, where it merely functions as a directional modifier. In (85) above, however, we saw that *ki* ‘out’ can also change the valency of the verb and introduce an obligatory accusative-marked object with an intransitive verb that can only appear with an optional superessive-marked argument in the BC. Verbs such as *könyörög* ‘beg’, *sír* ‘cry’, *harcol* ‘fight’ can also be applicativized with *ki*; the BC in (94a) features an optional argument in the causal-final case, and the AC in (94b) is actually ditransitive, not only with the base P as direct object but also with an optional dative-marked beneficiary (cf. also Example [24] from German, which could take the reflexive in *sich etwas erkämpfen* ‘get oneself something by fighting’):

(94) Hungarian

- a. *Lili könyörg-ött egy új bicikli-ért.*
 L. beg-PST.3SG a new bicycle-CAU
 ‘Lily begged for a new bicycle.’ (BC)
- b. *Lili ki-könyörg-ött (magá-nak/ Anná-nak) egy új bicikli-t.*
 L. APPL-beg-PST.3SG self-DAT A.-DAT a new bicycle-ACC
 ‘Lily got (herself/Anna) a new bicycle by begging.’ (AC)

Example (95) illustrates the situation with *nő* ‘grow’, which can only take an object that measures out the event when underived, not a regular referential object. *Ki* provides the semantic content of measuring out the event, however, so the object can be a referential argument in (95b).

(95) Hungarian

- a. *A fa nő-tt (egy méter-t / sok-at).*
 the tree grow-PST.3SG one meter-ACC lot-ACC
 ‘The tree has grown (one meter / a lot).’
- b. *Anna ki-nő-tt-e a cipő-jé-t.*
 A. APPL-grow-PST-DEFOBJ.3SG the shoe-POSS.3SG-ACC
 ‘Anna has grown out of her shoes.’

Similarly to what we saw in (46) for Lithuanian, the Hungarian particle *be* ‘into’ can add a new object that refers to a location or area, and the base object of the BC becomes an optional instrumental-marked argument in the AC (96). The particle also indicates that the activity covers the whole area expressed by the new object (see § 3.3 on the German Theme-covers-surface schema).

(96) Hungarian

- a. *János búzá-t vet-ett.* (BC)
 J. wheat-ACC sow-PST.3SG
 ‘John sowed wheat.’
- b. *János be-vet-ett két hektár föld-et (búzá-val).* (AC)
 J. APPL-SOW-PST.3SG two hectare land-ACC wheat-INS
 ‘John sowed two hectares of land with wheat.’

Hungarian has examples similar to the well-known English locative alternation (see also Examples [21]–[22] from German). Most of the time, they involve the particle *meg*, which used to mean ‘back_{dir} behind_{dir}’ but has no productive directional use in present-day Hungarian and is mostly used as a perfectivizer. The most frequent verbs found in the locative alternation are *rak* and *pakol* ‘put, load’, *tölt* ‘fill’, and *szór* ‘sprinkle’. The BC has a direct object (often an indefinite or bare nominal) and an argument in the illative, while the AC has a direct object (generally a specific, often definite, nominal) and an argument in the instrumental (97).

(97) Hungarian

- a. *Péter bor-t tölt az üveg-ek-be.* (BC)
 P. wine-ACC fill[3SG] the bottle-PL-ILL
 ‘Peter fills wine into the bottles.’

- b. Péter **meg**-tölt-i az üveg-ek-et bor-ral. (AC)
 P. APPL-fill-DEFOBJ.3SG the bottle-PL-ACC wine-INS
 'Peter fills the bottles with wine.'

The particle *meg* is also the one used in the few instances of ditransitive verbs. In the BC with *ajándékoz* 'present, gift', for instance, the accusative-marked Theme is generally indefinite or a bare nominal and the Recipient is in the dative (98a); in the AC, the Recipient is the object in the accusative and the Theme takes the instrumental (98b).³¹

(98) Hungarian

- a. Anna könyve-t ajándékoz-ott Tomi-nak. (BC)
 A. book-ACC gift-PST.3SG T.-DAT
 b. Anna **meg**-ajándékoz-t-a Tomi-t egy könyv-vel. (AC)
 A. APPL-gift-PST-DEFOBJ.3SG T.-ACC a book-INS
 Both: 'Anna gave Tommy a book as a gift.'

Finally, there are also instances in which the particle does not introduce an object but a directional argument with a selected case. In (99a), the motion verb *ugrik* 'jump' occurs with various directional arguments, and the form of the PP is not selected; the sentence is grammatical as long as the argument is directional. Nevertheless, when the particle *bele* 'into' is added in (99b), the directional complement must take illative case, which is formally and semantically very closely related to the particle itself.

(99) Hungarian

- a. Pál a medencé-be / az ernyő alá / Anna mellé
 P. the pool-ILL the umbrella under A. next.to
 ugr-ott.
 jump-PST.3SG
 'Paul jumped into the pool / under the umbrella / next to Anna.'
 b. Pál **bele**-ugr-ott a medencé-be.
 P. into-jump-PST.3SG the pool-ILL
 'Paul jumped into the pool.'

³¹ Hungarian has a number of "definiteness effect" verbs (É. Kiss 1995) that denote existence, becoming, creating, or appearing in a certain place or in a certain manner (*kap* 'receive, get', *talál* 'find' also belong here). Such verbs do not allow definite NPs in one of their argument positions, a property Szabolcsi (1986) attributes to the fact that their meaning includes 'existence' or 'appearance (on the scene)'. This effect disappears once a particle is added to the verb, or when there is a structural focus in the clause (see É. Kiss 2021 for a descriptive overview).

There are several recently developed particles that show the same pattern: *bele* ‘into’ and illative *-ba/-be*, *hozzá* ‘towards’ and allative *-hoz/-hez/-höz*, *neki* ‘toward’ and dative *-nak/-nek* (originally a general lative case), and *rá* ‘onto’ and sublative *-ra/-re*.

5.3 Semantics

Hungarian particles generally encode either a spatial meaning where the particle lexicalizes the Goal of the event (generally with motion verbs) or a perfectivizing meaning, signaling that the event has reached its endpoint or telos (É. Kiss 2006; see also Dékány and Hegedűs 2021). Unsurprisingly, since Hungarian particles have developed from directional adverbs or adpositions, all the recently developed ones still have such a semantic contribution. Among the oldest particles, only *meg* is no longer productive with motion verbs and cannot express the endpoint of motion anymore; the others are productive both in their original spatial meaning and in their more functional, perfectivizing, function.

Whether the AppP is a prototypical or atypical Patient depends on the lexical meaning of the verb. Whereas the non-subject is marked with a locative or directional case in the BC with verbs of mental activities or speech, it becomes an AppP with the introduction of the particle, and the meaning is—not unlike German with *be*-verbs, see § 3.3—that the totality of this object is involved in the mental activity or speech. When *át* ‘over, through’ is used with an activity verb such as *dolgozik* ‘work’, the AC refers to a complete transformation or thorough change caused by the subject and affecting the AppP.

In ACs with *le* ‘down’, there is a semantic element of destruction or wearing down that applies to the object (cf. also German *ver-* and *zer-*verbs in § 3). At the other end of the scale, when we look at examples like (94), the AppP appears on the scene and becomes the possession of the dative-marked argument as a result of the event.

5.4 Lookalikes

As mentioned earlier, verbal particles do not necessarily change verb valency: neither do all transitive or ditransitive verbs feature a particle nor does a verbal particle automatically transitivize its host verb.

Regarding syntactic lookalikes, Hungarian clauses can accommodate dative-marked NPs without resorting to verbal derivation, as in German and Slavic-Baltic, in order to express several extra-thematic participants, including Beneficiaries/Maleficiaries, External Possessors, etc. (cf. §§ 3.4 and 4.4).

Regarding morphological lookalikes in terms of preverbs introducing no new arguments, consider (100), which illustrates a frequent minimal pair in the language. In the

clause with *ki* ‘out’, there is no obligatory object introduced; the preverb only turns an activity verb into an accomplishment:

(100) Hungarian

- a. *János takarít-ott.*
J. clean-PST.3SG
‘John was cleaning.’
- b. *János ki-takarít-ott.*
J. out-clean-PST.3SG
‘John did the cleaning.’

Other morphological lookalikes are similar to German denominal *be*-verbs but have a slightly more complicated history and morphology (Hegedűs and Dékány 2017).

6 Conclusions

This chapter surveys various types of applicative constructions and some non-applicative uses of applicative morphology attested in English, German, and Hungarian, as well as in Slavic and Baltic languages. According to the questionnaire proposed as a guideline for this volume’s contributions, the constructions presented can be characterized as follows:

Morphology

- Slavic-Baltic applicative markers are verbal prefixes. Hungarian applicatives are preverbal particles. Germanic applicative markers can be either prefixes or particles (postverbal in English, preverbal in German).
- Most markers surveyed occupy the same slot as their spatial-aspectual counterparts in the verbal complex. German Group-I prefixes (e.g., *be-*) occur closer to the verb root.
- German *ent-* and Slavic-Baltic prefixes show some morpho-phonological allomorphy; other applicativizing preverbs are invariable.
- Applicativized verbs do not show any morphological idiosyncrasies, with the exception of the restrictions on the expression of present and/or future tense forms in Slavic related to the perfectivizing function of prefixes and the interaction with the reflexive marker in Lithuanian.
- There are no applicative periphrases or analytic applicative constructions in our sample.

Syntax

- Most of the constructions surveyed are P-applicatives. Baltic and Slavic languages also feature X-applicatives and, rarely, D-applicatives; some preverbs in Latvian and *ent-* in German create D-applicatives as well.
- European preverbal applicativization is typically optional in that the participant expressed by the AppP does not require applicativization to be expressed in a clause. Nevertheless, that participant often has similar, but not identical, semantic roles in the BC and the AC.
- The applicatives surveyed are normally valency-increasing. In some instances in English, German, and Hungarian, they can be valency-neutral (or even valency-reducing, like with some *be*-verbs in German).
- Preverbal applicatives do not appear to show any restrictions in combination with other valency-changing operations (at least passivization and causativization). The reflexivization and reciprocalization of applicatives does not seem to be subject to structural restrictions in Germanic and Hungarian; these morphological processes are lexically restricted in Baltic-Slavic, so there appear to be some important restrictions here, but more research is needed on this issue.

Semantics

- The applied phrase bears a variety of space-related, landmark-like roles in the applicatives surveyed. Notably, German, Slavic, and Baltic show P-applicatives with the meanings ‘through’, ‘across’, and ‘around’. In many cases, these roles can be metaphorically extended and cover an ever wider range of possible participants.
- Cases that arguably represent extensions of spatial roles include the exceeded threshold / surpassed competitor with English *out*-applicatives or South Slavic *nad*-applicatives, the “holistic” Patient of many German *be*-applicatives, and most of the Hungarian applicatives.

Lookalikes

- Some syntactic lookalikes, particularly those due to uncoded polyvalency with A-labile predicates, can be found in Slavic-Baltic and Hungarian. They appear to be less common in German and much more common in English (cf. the locative, benefactive, and dative alternations).
- The most prominent syntactic lookalike to a D-applicative in all the languages surveyed except English consists of simply adding a dative-marked NP to a clause, subject only to semantic and pragmatic restrictions (a so-called extra-thematic dative with several possible semantic roles: Possessor, Beneficiary, Maleficiary, Experiencer, Viewpoint Holder . . .).
- Morphological lookalikes are extremely common in all the languages surveyed. In addition to the same markers having an applicativizing function with some verbs and a spatial-aspectual yield with others (or, in the case of some English particles,

in different contexts with the same verbs), the English prefix *out-* appears to occur comparatively often as an applicative marker. The picture in German is rather varied, especially with Group-I prefixes (and particularly *be-*), which occur on numerous verbs as lexicalized forms, as “*applicativa tantum*”, or as verbs whose applied phrase in the applicative clause bears only an unpredictable and occasionally tenuous semantic relationship to its counterpart in the base clause.

- A special case of morphological lookalike is found in Baltic-Slavic, with verbs of displacement. Here, preverbs turn optional landmark adjuncts into obligatory oblique arguments, a case of oblique registration.

Abbreviations

AC	applicative construction
ACC	accusative
ADJZ	adjectivizer
AOR	aorist
APPL	applicative
AppP	applied phrase
ART	article
AUX	auxiliary verb
BC	base construction
CAU	causal-final
CVB	converb
DAT	dative
DEF	definite
DEFOBJ	definite object
DEL	delative
DEM	demonstrative
DIM	diminutive
DOBJ	direct object
F	feminine
GEN	genitive
ILL	illative
IMP	imperative
INE	inessive
INF	infinitive
INS	instrumental
IOBJ	indirect object
IPFV	imperfective
LOC	locative
M	masculine
N	neuter
NEG	negation
NOM	nominative
NP	noun phrase

OBL	oblique
OBLREG	oblique registration
OHG	Old High German
PFV	perfective
PG	Proto-Germanic
PIE	Proto-Indo-European
PL	plural
POSS	possessive
PP	passive participle
PREP	preposition
PRS	present
PST	past
PVB	preverb
REL	relativizer
RFL	reflexive
SBJ	subject
SBJV	subjunctive
SG	singular
SUBLAT	sublative
SUP	superessive

Online sources

CCL: Corpus of Contemporary Lithuanian, <http://tekstynas.vdu.lt/tekstynas>

CNC: Czech National Corpus, <https://www.korpus.cz/>

RNC: Russian National Corpus, <https://ruscorpora.ru/new/index.html>

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Genealogical overviews

Tim Thornes

15 Applicatives in Northern Uto-Aztecan languages

Abstract: Applicative constructions in Northern Uto-Aztecan (NUA) languages, although dissimilar in form, share many functional-semantic features and similar historical developments. All NUA languages carry a verb suffix signaling the addition of a benefactive argument to the organic valence. In most cases, they represent the only means for expressing a beneficiary as a core argument. Applicative suffixes in NUA appear in most cases to originate from a ‘give’ verb. Although not always noted as such in the available grammatical descriptions, NUA applicative constructions show causative-benefactive syncretism associated with semantic verb type. The benefactive function is quite consistent with transitive and active (agentive) intransitives, whereas with stative (or patientive) intransitive verbs, the suffix functions as a causative. In languages that have distinct applicative forms and morphological causatives, their frequency of use still follows this pattern.

1 Introduction

The focus of this chapter is to present a typological overview of applicative constructions (ACs) in the four genetic subunits that constitute the purported Northern branch of the Uto-Aztecan language family (NUA). The languages of these subunits constitute two genetic groupings, Numic and Takic, and two singletons within NUA, Pahka’anil (formerly known as Tübatulabal) and Hopi. Numic languages represented through examples in this paper include Northern Paiute, Shoshoni, Tümpisa, Southern Paiute, and Ute, while Takic languages cited in what follows include Cupeño, Luiseño, Acjachemem, Serrano, and Cahuilla. The unity of NUA itself as a genetic grouping remains in contention. Applying the rubric of “relative cognate density” Haugen, Everdell and Kuperman (2020) find no clear evidence for NUA, in line with work by Miller (1984) using the more traditional method of lexical correspondence. Others (for example, Manaster Ramer 1992) implicate NUA as a major branch of Uto-Aztecan.

Northern Uto-Aztecan languages occupy a mostly contiguous area that includes the Great Basin region of the western United States, along the eastern slopes of the Sierra

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Nevada mountain range, and including southern California and northern Arizona to western Colorado. Comanche, Shoshoni's closest relative in Central Numic, is the only language of the group found outside of this area, occupying portions of the southern plains of Texas and Oklahoma.

Whether unified as a major branch of Uto-Aztecan, a set of four distinct subgroups that parallel a southern branch (SUA), or something in between, it remains instructive to make comparisons across NUA as contributions to our understanding of historical developments within the family. There will be inevitable gaps in the discussion that follows due to the nature and extent of the available grammatical descriptions and searchable text data that pertain directly to properties of ACs across NUA. Beginning in Section 2, we offer a brief overview of some of the key features of the languages in question—verb structure (§ 2.1), participant coding (§ 2.2), voice (§ 2.3), and the secondary verb construction (§ 2.4)—in order to provide context for the description and discussion of ACs. We will then proceed with a discussion of the morphological, syntactic, and semantic properties of ACs (§ 3.1, § 3.2, and § 3.3, respectively) in each of the four branches included under NUA. These discussions will necessarily include a look at causatives, insofar as the two operations, causativization and applicativization, share important formal, functional, and historical features.

Discourse-functional considerations are taken up in Section 3.4. A unique construction type in Northern Paiute that combines a denominalizing construction with applicativization will be brought under consideration in Section 4. A summary overview of the typologically significant properties of ACs in the NUA languages with questions for further study is found in Section 5.

My own field experiences have informed an inevitable bias toward Numic (and Northern Paiute, in particular). Fortunately, however, there are some excellent descriptive materials for Takic (cf. Hill 2005; Hill and Hill 2019). Relevant materials drawn upon for the present study for Pahka'anil and Hopi are limited mainly to Voegelin (1935) and the Hopi Dictionary Project (HDP 1998) in addition to Jeanne (1971), yet even so, there is enough material to draw upon for comparison both to contribute to our understanding of developments within the family and to the interests of typology and grammaticalization theory more generally.

2 Morphosyntactic character of the languages

Generally speaking, NUA languages have a rich morphology—mostly concatenating and synthetic—particularly in the verb. They are strongly verb-final in constituent order and associated features and are characterized by a clitic complex in second position, consisting most typically of elements carrying pronominal information and features of modality and evidentiality (Thornes 2018). The following sub-sections are

meant to illustrate some basic properties of NUA languages in order to shed light on how these relate to the applicative constructions we encounter in this language group.

2.1 Verb structure

The verb complex in the NUA languages includes a variety of morphologically marked valence-changing operations, including those that increase valence, such as causatives and applicatives. As a sample template, consider the following diagram of Northern Paiute (Western Numic) verb structure (Thornes 2009):

- (1) Object= [Phasal [[Valence [IP¹ [Root]] Valence] DIR/ASP] SUB/NMLZ]
 PRO= AUX Theme Stem Theme Prefinal Final

The Northern Paiute verb's morphological inventory includes stem-forming affixes known as "instrumental prefixes" (IPs) (a particularly salient derivational process in the Numic subgroup²), valence-changing operators (both prefixes and suffixes) that form the theme, an array of directional and aspectual (prefinal) suffixes, subordinating and nominalizing (final) suffixes, and a small set of phasal auxiliary elements that appear between the direct object pronominal proclitic and the remainder of the verbal complex. These elements express adverbial notions like 'nearly', 'easily', 'only', and 'truly'.

Cupeño (Takic) shares much in common with Northern Paiute verb structure, with some (mostly) minor differences, in particular the scattering of subject agreement forms. Consider the following schema of the verb in Cupeño, adapted from Hill (2005: 106):

- (2) Object= (Subject') Root (Subject") Valence Tense-Aspect
 PRO= (SBJ AGR) Stem (SBJ AGR)³ Theme Final

By way of comparison, Northern Paiute object pronominals also appear as proclitics, whereas there appears little trace of subject agreement as there is in Cupeño or in Hopi (see below). The appearance of subject forms as both prefixes and suffixes in Cupeño is

¹ The actual semantic contribution of instrumental prefixes to the resulting verb root can be quite idiosyncratic.

² Remnants of the instrumental prefix construction may be found in the other NUA languages, but generally consist of lexicalizations.

³ By Hill's analysis, there are two subject positions here, yet thus far I haven't encountered a context where both positions are filled in a single verb.

dependent upon formal verb class considerations described in Hill (2005). Within the thematic and final zones of verb structure, in particular those relating to valence or tense-aspect, there may appear one or more suffixes. The thematic suffixes include both a morphological causative marker and a benefactive applicative. As elsewhere in NUA, these always appear closest to the stem and in that order.

Verb structure for Pahka'anil is described in Voegelin (1935: 96–97) as consisting of suffixes only, appearing in two groupings, medial and final. Included in the medial set are the causative and benefactive suffixes in closest proximity to the verb stem, as with Northern Paiute and Cupeño. As discussed below, these two valence-increasing devices in Pahka'anil are near homophones and are favored with particular verb types. Final suffixes include some tense and aspect forms, while, in common with Northern Paiute, also are found subordinating and clausal nominalizing suffixes.

Bound pronominals in Pahka'anil, both nominative and accusative, are second position enclitics, which in narrative (see, for example, the narratives presented in Marean et. al. 2021) bind them to verb forms (following, of course, the final suffixes), and also to adverbials. Where both are present, the nominative precedes the accusative pronoun.

2.2 Coding properties for grammatical relations

Considering word order, case-marking, and verb agreement, the NUA languages demonstrate a robust nominative-accusative alignment for grammatical relations. The languages are verb-final (AOV/SV) in the majority of instances both in recorded, spontaneous speech and in responses to direct elicitation.

Case-marking shows some variation of expression. All NUA languages express three case distinctions—nominative, accusative, and genitive, with some degree of formal syncretism between the latter two. The nominative is most generally the unmarked case. These distinctions are manifested in the form of pronouns and demonstratives and, to a less predictable extent, through case suffixes on nominals and NP dependents. Secondary cases in the form of bound postpositions express a range of locative, temporal, and instrumental semantic roles, among others.

The following examples demonstrate the variety of core case (nominative subject, accusative object) formations in NUA. In Shoshoni (Central Numic), we find case marking on both head nouns and their dependents. Consider:

- (3) Gosiute Shoshoni (Miller 1996: 706)
- ⁴

s-u-tin simmin tu:pihtin punku nukkimia
 PROX⁵-that-NOM one.NOM black.NOM horse[NOM] running
 ‘That one black horse is running.’

- (4) Gosiute Shoshoni (Miller 1996: 706)

ni u-kka simmi-a punku-i puikka
 I that-ACC one-ACC horse-ACC see
 ‘I see that one horse.’

In (3) and (4), we see contrasting nominative and accusative case forms on the demonstrative, numeral, and head noun, respectively. Nominative case is unmarked on nouns as NP heads. Accusative object case suffixes on head nouns are varied and only partly predictable on the basis of specific morphophonological properties. The reader is referred to Miller (1996) and Crum and Dayley (1993) for further explication of allomorphic variation in the marking of syntactic objects in Shoshoni.

In Northern Paiute (Western Numic), we see a complete absence of distinct core case suffixes on head nouns as one finds elsewhere in Numic. Instead, we find case-sensitive determiner proclitics in a straightforward nominative-accusative alignment pattern, as in the following examples.

- (5) Northern Paiute: proclitics (Thornes 2003: 145)

su=paniinadi tiasi-pi
 NOM=lake freeze-PERF
 ‘The lake is frozen.’

4 The Shoshoni examples from Miller (1996) and Dayley (1989) are represented phonemically to accommodate four distinct consonant grades—simple unaspirated (lenis), geminate (fortis), prenasalized, and preaspirated. Four grades of alveolar stop, for example, are written <t> (phonetically [d] or [ɾ]), <tt> (phonetically [tː]), <nt> (phonetically [nd]), and <ht> (phonetically [ð]).

Northern Paiute has just two grades of obstruent—simple unaspirated (lenis) and voiceless geminate (fortis). “Lenis” forms are typically perceived as voiced (and lightly fricativized) in both languages, especially word-medially, in which position they are in contrast with “fortis” in Northern Paiute. In this paper, the lenis forms in Northern Paiute are represented as voiced and the fortis as voiceless obstruents. Word-initially, consonant grades across Numic neutralize to simple voiceless.

Suffix-initial consonants are prone to variation across consonant grades depending upon a preceding morpheme, whether affix or root, and have traditionally been termed “final features” whose effect has scope only on the following consonant. Interestingly, the rare exception is the pan-Numic applicative suffix, whose initial consonant grade is impervious to final feature effects.

5 Crum and Dayley (1993: 25) use the term *proximate* to refer to a referent functioning as a definite and continuing topic.

- (6) Northern Paiute: proclitics (Thornes 2003: 145)

su=tsiaʔa ka=tipi mayi-u
NOM=girl ACC=rock find-PNC
 ‘The girl found the rock.’

The case-sensitive determiner proclitics, *su=* and *ka=*, do not attract stress, as do prefixes, and are bound to the first element of a noun phrase.

Determiner proclitics most likely developed from contracted demonstrative forms in Northern Paiute and may have arisen under the wide variation and erosion we witness in core case-marking elsewhere in Numic. Case distinctions also appear on dependent modifiers, however. The following examples illustrate the nominative-accusative alignment pattern instantiated in formal properties of noun phrase dependents.

- (7) Northern Paiute: case suffixes (Thornes 2003: 149)

su=udi-ʔyu naatsi kima-u-gi-na
NOM=tall-NOM boy come-PNC-CISL-PTCP
 ‘The tall boy is coming this way.’

- (8) Northern Paiute: case suffixes (Thornes 2003: 149)

nī u=punni ka=udi-u naatsi
1SG.SBJ 3SG.OBJ=see ACC=tall-ACC boy
 ‘I see him, the tall boy.’

The conflation of determiner proclitics and modifier case suffixes results in the apparent double-marking of nominative and accusative case in these examples. Subject pronouns are independent words, whereas object pronominals usually appear as proclitics attached to verbs, as in (8) above. These forms are identical to possessor pronominal proclitics on possessed nouns as well as on nominalized verbs in some subordinate clause constructions.

Recall from (2) above that the Takic language Cupeño has plural subject agreement distributed over two (or three) distinct position classes in the verb depending upon verb class distinctions in what appears to be a highly idiosyncratic system. As in Northern Paiute, objects, indirect objects, and applied benefactive objects appear as verbal proclitics in Cupeño. Consider:

- (9) Cupeño: pronominal object proclitics (Hill 2005: 113)

<i>Em-em=qwe=me</i>	<i>chimi=mixaan</i>	<i>me</i>	<i>chimi=meqan-max</i>
2PL.SBJ-PL=can=2PL.ERG	1PL.OBJ=do.HAB	and	1PL.OBJ=kill-BEN.HAB
<i>hunwe-t</i>	<i>peʔ</i>	<i>aya</i>	<i>chimi=tul-qa</i>
bear-NPN	the	now	1PL.OBJ=finish-PRS

‘You all must do something for us, and kill for our sake the bear who is now finishing us off.’

The first person plural proclitic appears in (9) to encode both direct and applied objects, the latter licensed by the benefactive-applicative suffix, *-max*. As is also the case for Northern Paiute, only one object proclitic can appear with a particular verb. In such a case with two pronominal objects, the benefactive pronominal takes precedence.

In Hopi we find accusative case marking on both noun phrase heads and dependents, like the demonstrative, in the following:

- (10) Hopi (Hill 2013)
umu-mi pu-t maana-t peonakna
 2PL-to that-ACC girl-ACC mention
 ‘(She) mentioned that girl to you.’

This is identical to the situation we saw in Shoshoni, where we find accusative case affixes on both head nouns and modifiers in contrast to unmarked nominative forms.

Distinct case forms can also be illustrated for Pahka’anil, as in the following set of examples.

- (11) Pahka’anil (Voegelin 1935: 149–151)
yi’xpa’l leca’t
 the.door.NOM is.opening
 ‘The door is opening.’
- (12) Pahka’anil (Voegelin 1935: 149–151)
ta’twa’l lecci’ina’t yipala’
 the.man.NOM is.opening.CAUS the.door.ACC
 ‘The man is opening the door.’
- (13) Pahka’anil (Voegelin 1935: 149–151)
ta’twa’l ha’maca’t
 the.man.NOM is.sad
 ‘The man is sad.’

These examples show distinct nominative and accusative case forms of nouns. Consider the distinct forms for ‘door’ in (11) and (12), whereas the forms for ‘man’ in (12) and (13) are identical as subjects of transitive and intransitive verbs, respectively.

Aside from object proclitics (recall the Northern Paiute and Cupeño examples above), verb agreement is of limited distribution in NUA. In Pahka’anil, Voegelin (1935) distinguishes free pronouns from those that operate as ‘conjunctive particles’, but are perhaps best classed together with a variety of second position enclitics. Clitics in second position carry a host of modal, evidential, and pronominal information in Pahka’anil as they do in most other Uto-Aztecan languages.

In Hopi, only plural subject agreement marking is present. Note the following examples from Hill (2013):

- (14) Hopi (Hill 2013)

pu-t koyaanisqatsi-t peonakna-ya
 that-ACC corrupt.life-ACC mention-PL
 ‘They brought up the matter of the corrupted life.’

- (15) Hopi (Hill 2013)

soosovik sinom pas-va-ya
 all.around people field-DIFF-PL
 ‘All the people around are farming (lit. are in the fields).’

According to Hill (2013), the *-ya* marker for plural subject is really an enclitic to the final constituent of the clause. In (14), we see it following the verb, whereas in (15), it follows a postpositional phrase serving as a verbless predicate, and so again it represents a marginal case of verb agreement.

2.3 Valence and voice

As we have seen, grammatical relations in basic intransitive and transitive verbs show nominative-accusative alignment through overt coding properties (word order, case marking and verbal agreement). In ditransitive clauses, both non-agentive participants are encoded as accusative case-marked noun phrases:

- (16) Hopi (HDP 1998: 880)

taaqa wuuti-t sami-t maka
 man woman-ACC fresh.corn-ACC gave
 ‘The man gave fresh corn to the woman.’

Derived ditransitives follow the same pattern of case marking on the two objects. Compare the transitive clause in (17) with its derived causative counterpart in (18):

- (17) Hopi (HDP 1998: 880)

nĩ' hopilavayi-t tĩtĩqayi
 1SG.SBJ Hopi.language-ACC learn
 ‘I am learning the Hopi language.’

- (18) Hopi (HDP 1998: 880)

nĩ *pahan-mĩ-y* *hopilavayi-t* *titiqay-na*
 1SG.SBJ white.people-PL-ACC Hopi.language-ACC learn-CAUS
 ‘I am teaching (i.e. causing to learn) white people Hopi.’

Passive voice renders ditransitive verbs transitive as in the following:

- (19) Hopi (HDP 1998: 881)

itam *siiva-t* *mak-iw-ni*
 1PL.SBJ money-ACC give-PASS-FUT
 ‘We’re going to be given money.’

Throughout NUA, passive constructions operate equally well, whether with base objects or applied objects as subject of passive:

- (20) Northern Paiute (Thornes 2003: 307)

- a. *su=miidi* *ni-ka* *na-kuhani-kki-wini*
 NOM=meat 1SG-ACC PASS-cook-APPL-PROG.SG
 ‘The meat is being cooked for me / (s.o.) is cooking the meat for me.’
- b. *ka=miidi* *ni* *na-kuhani-kki*
 ACC=meat 1SG.NOM PASS-cook-APPL
 ‘I am being cooked the meat.’

Intransitive verbs are rendered impersonal, as in the following Hopi and Northern Paiute examples:

- (21) Hopi (HDP 1998: 881)

pay *angqe?* *took-iwa*
 PRT all.around go.to.sleep-PASS
 ‘(They) have gone to sleep.’ / ‘Going to sleep took place.’

- (22) Northern Paiute

una?yu *na-tinikwihi*
 out.there PASS-singing
 ‘(They) are singing out there.’ / ‘There is singing out there.’

Interestingly, an operational asymmetry appears with regard to the target of the anti-passive construction, what has often been referred to as the unspecified object construction in the literature on Uto-Aztecan languages.

- (23) Northern Paiute
u-su i =ti-kuhani-kki
 3SG-NOM 1SG.ACC=**APASS**-cook-**APPL**
 ‘S/he’s cooking for me.’
- (24) Northern Paiute
ni miidi kuhani-kki-u-kwi
 1SG.NOM meat cook-**APPL**-PNC-FUT
 ‘I’ll cook meat for (someone).’

In (23), the applicative licenses the first person benefactive object and the patient object is marked as unspecified by the antipassive prefix. On the other hand, when the benefactive applicative suffix in (24) is present the applied object can be unspecified without being so marked.

As these examples illustrate, the antipassive construction appears to reveal syntactic asymmetry with respect to which object is unspecified. An equally plausible analysis would be that, in fact, the construction indicates that the patient role of a transitive clause is unspecified. With organically ditransitive verbs like ‘give’ and ‘send’, we find a similar asymmetry, whereby the target for under specification in the antipassive construction appears to be the patient or theme (T), and not the recipient (R). We will revisit, time and again, in this study what appears to be a pattern of operation that is controlled more by verbal semantics than grammatical relations when it comes to valence change.

2.4 Secondary verbs

What are often referred to as “secondary verbs” in Uto-Aztecan languages actually refers to a special complex predicate construction involving a subset of high frequency motion and posture verbs (among others) that often develop broader aspectual and directional properties in the construction. They appear somewhat scattered throughout Uto-Aztecan (see especially Crapo 1970 for an overview of the phenomenon and historical developments therein). Hill and Hill (2018) refer to the members of the secondary verb category as “non-conforming verbs”. Crum and Dayley (1993: 101–105) refer to them in Western Shoshoni as “secondary auxiliary verbs” and describe them as “forming loose compounds” with main lexical verbs. In at least one language, Northern Paiute, secondary verbs can be readily distinguished from typical compounding structures (Thornes 2011), having more in common with Aikhenvald’s (2006) “asymmetrical serial verb” construction. The importance of this construction in relation to the AC in Numic is taken up below.

Secondary verbs form a unit with the main lexical verb by being incorporated into the verbal complex. Several of these secondary verbs are transparently related to various of the directional and aspectual morphology in these languages and are an

active zone for grammaticalization (Thornes 2009, 2011). Basic motion and posture verbs fit into the secondary verb category in Numic (25) alongside the non-conforming verbs (Hill and Hill 2019) in the Takic languages (26).

- (25) Western Shoshoni (Crum and Dayley 1993: 102)

Teiten naiʔpi sukkuh yakai-katte
 little girl there cry-sit.DUR
 ‘The little girl was sitting there crying.’

- (26) Cupeño (Hill and Hill 2019: 800)

kanaasta=kuʔut ajʔani-sh pym-jaw-nyq
 basket=QUOT big-NPN 3PL-carry-come.NFUT
 ‘They brought a big basket.’

Important distinctions are made in Thornes (2011) between the secondary verb construction (SVC) and typical verb + verb compounding in Northern Paiute (Western Numic). These include the fact that, in traditional parlance, verb + verb compounding is semantically right-headed, whereas in the SVC the main lexical verb precedes the secondary verb (i.e. is left-headed). This analysis is supported by the fact that secondary verbs always develop from a finite subset of verbs in the language and express such grammaticalized functions as direction and aspect. Relevant for our discussion is the observation that the position of the causative-applicative suffix in the language follows the verb + verb compound in (27), while it comes between the main and secondary, as in examples (28) and (29).

- (27) Northern Paiute (Thornes 2011)

i=sakwa ka=toissapui i=sami-tiki-kki
 2SG.NOM=MOD ACC=chokecherry 1SG.OBJ=soak-put.SG-APPL
 ‘You should put the chokecherries in to soak for me.’ (NK: ‘Chokecherries’)⁶

- (28) Northern Paiute (Thornes 2011)

ni i=kiki ʔyui-kki-kati
 I 1SG.POSS=feet be.warm-APPL-sit.SG
 ‘I sit warming my feet (making my feet warm).’

⁶ The Northern Paiute data included in this paper, when possible, come from narrative text or however they appear in the secondary sources I have consulted. Northern Paiute material was recorded, transcribed, and analyzed by me with the help of native, first language speakers. The examples tagged as narratives are coded with speaker initials and a short title. If not so tagged, the reader may assume the example came from direct, usually text-based, elicitation.

(29) Northern Paiute (Thornes 2011)

yaisi ka=yuu “corner”-wai uuni-ku mi=wini-kki-tiji-yakwi
 then ACC=this.way corner-LOC that.kind-ACC PL=stand.SG-**APPL**-tell.to-HAB
 ‘And this way, in the corner, that kind, would tell them to stand.’
 (NK: ‘Boarding School Days’)

One can stipulate, based on this distribution, that the applicative suffix attaches to the verbal stem portion of the verb structure (note the schema in [1] above), whereas the secondary verb applies to a distinct layer of structure, the theme layer.

3 Applicative forms in Northern Uto-Aztecan

We turn now to a discussion and description at the morphological, syntactic, and semantic levels of ACs as found in each of the four NUA subunits—Numic, Takic, Pahka’anil (Tübatulabal), and Hopi. The ensuing discussion will naturally derive from a decidedly Numic bias for the simple reason that some typological questions would otherwise remain unanswered due to a lack of available data. Discussion of the phenomenon of causative-benefactive syncretism and the historical connection between morphological causatives and applicatives has been largely absent, for example, in most descriptions of NUA languages.

The NUA languages each typically carry just one applicative suffix that signals valence increase, mainly through the addition of an object argument whose featured semantic role is benefactive (as well as malefactive). Some variation in semantic role occurs as a natural consequence of distinct semantic properties of the verbs to which they attach. The construction appears to be mostly obligatory across NUA, offering the only means by which to express a benefactive argument. Minor exceptions are discussed in Section 3.2.

The ensuing sections summarize and exemplify the morphological, syntactic, and semantic properties of the constructions, as well as discussion of some discourse-based properties of the AC with evidence from Northern Paiute. We begin our comparative discussion of NUA ACs with their most salient morphological properties.

3.1 Morphology

Canonical ACs in NUA appear exclusively to consist of a suffix closely attached to the verb stem. There appears very little in the way of either lexically or phonologically conditioned allomorphy. Indeed, the pan-Numic applicative suffix *-ŋki* appears to be

resistant to the widespread lexically conditioned allomorphy (in the form of consonant mutation) that affects most of the other suffixes.⁷

Applicative morphemes for each of the NUA languages sampled for this study are listed in Table 1.

Table 1: Applicative forms in the four branches of Northern Uto-Aztecan and their origins.

SUBGROUP	LANGUAGE	APPLICATIVE	GIVE	*PUA
*Numic	Northern Paiute	- <i>kkɪ</i> ⁸	*kia	
	Tümpisa & Western Shoshoni	- <i>ŋki(n)</i>		
	Southern Paiute & Ute	-(<i>ŋ</i>) <i>ki</i>		
*Takic	Cupeño	- <i>max</i>	*maka	
	Luißeño & Acjachemem	- <i>max</i>		
	Serrano	- <i>itfuna</i>		*(i)na
*Hopi	Hopi	- <i>toyna</i>		*(i)na
*Pahka'anil	Pahka'anil	-(<i>a</i>) <i>na</i>		*(i)na

Aside from the two GIVE verbs in Numic and Takic from which applicatives have clearly grammaticalized in these languages, are three likely related forms in Serrano, Hopi, and Pahka'anil. Note that all three carry a remnant of what has been proposed as a probable Proto-Uto-Aztecan causative, *-(i)na (Langacker 1977: 145). The sporadic alternation of [i] and [a] relates to transitivity, albeit inconsistently, across the Uto-Aztecan family.⁹

The denominalizing suffix *-tu*, similarly attested in Numic and Serrano as meaning, broadly, 'to make N', could well account for the initial portions of the Hopi and Serrano forms. These Serrano and Hopi forms can be related phonologically, with Hopi [t] corresponding to the [tʃ] in Serrano by simple palatalization in the environment of high front [i]. Further, Hopi [o] corresponds to [u] across the family.¹⁰

Applicative suffixes typically appear alongside morphological causatives in the NUA languages which carry both. Where both are present as suffixes, the applicative

⁷ Consonant mutation is an important morphophonemic process in Numic, making reconstruction difficult. There is both stem-internal contrast and lexically-induced gradation at most morpheme and enclitic boundaries. Prenasalization in Central Numic (especially Shoshoni) corresponds with a somewhat unusual voiced geminate grade in the southernmost dialects of Northern Paiute, whereas in the northern lects, illustrated here, prenasalization has merged with voiceless gemination, hence, *-kkɪ*. John McLaughlin (i.p.c.) considers the prenasalised reflex to be the Proto-Numic form.

⁸ I present the Northern Paiute causative-applicative in all examples to follow in its underlying form to emphasize the fact that its initial consonant does not mutate, but remains geminate (fortis) in all conditions.

⁹ Vocalic ablaut induced by certain suffixes on stems and its historical implications for Uto-Aztecan historical study has long been recognized (cf. Heath 1977: 29–33 and Hill 2003: 42–46). In short, stem final variation between [i] and [a] can sometimes have transitivizing effects.

¹⁰ I am grateful to Ken Hill (i.p.c.) for his insight and corroboration of the probability of the historical relationships I am proposing here among these forms.

typically follows the causative morpheme, as is described by Voegelin (1935) for Pahka'anil where it is stated of the benefactive suffix that it is used "after virtually all transitive verbal stems or verbal themes which are transitivized by means of the causative suffix (104)". Note:¹¹

- (30) Pahka'anil (Voegelin 1935: 101–103)
- a. *halai'* 'to be wet (INTR)'
 - b. *halai'-ina-t* 'he is wetting him (making him wet)'
 - c. *halai'-ina-ana-t* 'he is wetting him for her'

The following example from Cupeño illustrates this preference as well:

- (31) Cupeño (Hill 2005: 264)
- Ni=kawaw-nin-max=em=pe ne-pulinma-y.*
 1.SG.ACC=call-CAUS-APPL=2.PL=IRR 1.SG.POSS-son-ACC
 'You all will cause my son to be called for my sake.' (Faye Creation 116)

The forms are varied across the four subgroups, with Pahka'anil and Hopi (and possibly Serrano) appearing to preserve (at least in part) causative forms traceable to proto-Uto-Aztecan.

The Northern Paiute applicative construction involves the reflex *-kki* whose appearance most typically signals the addition of a benefactive participant to the base argument structure and bearing the grammatical relation of direct object. Compare:

- (32) Northern Paiute
- i yadua-kwi*
 2.SG.NOM talk.SG-FUT
 '...you will talk/respond...'
- (33) Northern Paiute
- umi mi=yadua-kki-kwi-u*
 2/3.PL.NOM 1PL=talk.SG-APPL-FUT-PNC
 '...you all will talk/interpret for us... ' (NK: Boarding School Days)

The most likely source for the applicative suffix in the Numic sub-group can be found in the still extant Northern Paiute verb *kia* meaning 'give.' According to Peterson (2007), GIVE verbs are the most common source of benefactive applicatives, cross-linguistically.

¹¹ It is unfortunate that Voegelin (1935) elected to display examples involving only third person singular participants—the unmarked form—thereby obscuring some of the key indicators of transitivity in the examples.

The likely source construction for the grammaticalization of GIVE > APPLICATIVE seems clearly, in Numic at least, but possibly across the Uto-Aztecan family, to be the secondary verb construction, described above. Although not prototypical, it represents an example of a one-word serial verb construction of Aikhenvald's (2006) asymmetrical type.¹² My claim here is that the pan-Numic applicative suffix $-(\eta)ki$ has as a source a still extant, trivalent verb *kia*, meaning 'give', which became grammaticalized as a participant in the secondary verb construction. Consider:

(34) Northern Paiute (Thornes 2003)

yaʔa mii ini-na; u-su ti=sii-tsida u=kia
 here QUOT say-PTCP 3-NOM LOGO=willow-dish 3=give
 "Here!" so replying; he gave her his willow cup.' (ML: Bear and Deer)

That the historical source construction is likely as a secondary verb can be further illustrated with examples like the following:

(35) Northern Paiute (Thornes 2003)

i=yuŋa-kia
 me=pick.up.a.container-give
 'Give that (container) to me!' (alternatively, 'Pick it up for me!')

Note that in (35), the first person object proclitic is licensed by the secondary verb 'give', in the same way as the applicative suffix would, by turning a bivalent verb 'pick up' into a trivalent predicate complex.¹³ This represents a step in the direction of full grammaticalization—semantic bleaching—followed by phonological reduction and acategoriality. Comparable examples in the more canonical serializing languages of west Africa and southeast Asia can readily be found (cf. Lord, Yap, and Iwasaki 2002).

An applicative morpheme distinct from that found in the Numic languages is found in Takic, but one which also appears to derive historically from a still extant lexical verb meaning 'give.' In the case of the Takic subgroup, most of the languages, with the exception of Serrano, have an applicative form *-max* transparently related to the extant verb *maxa* 'give'.¹⁴

¹² Asymmetrical serial verb constructions are those whereby one verb in the series is from a restricted (closed) class, or subset, of verbs, especially basic motion and posture verbs.

¹³ Note as well that there is only one participant coded overtly in this example, the first person singular recipient (benefactive). The second person subject is understood, as is common in imperative constructions, and the third person theme is unmarked, due to the recipient being prioritized in the proclitic position.

¹⁴ Other Uto-Aztecan languages have *maka*, semantically narrowed to mean 'give food; feed', as in the Hopi example (16) above. Note the main verb *magha* in the Ute examples (47–49) below.

- (36) Cupeño (Hill and Hill 2019: 802)
- ¹⁵

\$aw~\$aw-in-**max**=yn

PLUR~make.bread-TR-BEN=1SG.ACC

'Make a few tortillas for me!'¹⁶

- (37) Cahuilla (cited in Hill and Hill 2019: 831)

tu? tu? ne-ʔem-jaxe-**max**-am pe-n-paʔ-ka

grind grind 1SG.OBJ-2PL-do-BEN-IPFV.PL 3PL.OBJ-1SG-drink-1SG.FUT

'Grind them for me so that I can drink them!'

Here, as elsewhere, the beneficiary is licensed by the applicative suffix and is the only option for including a benefactive participant in the clause. This fact appears to be true across NUA.

Serrano is an exception among Takic languages in that it is the suffix *-ichun(a)*, that signals the addition of a benefactive argument in an applicative construction (Hill and Hill 2019: 712). Compare the following:

- (38) Serrano (Hill and Hill 2019: 712)

a. *icha-j* 'dip (water)b. *ich-ichun* 'dip for'c. *kuuhan* 'call; invite'd. *kuuhan-ichun* 'call/invite for'

All three arguments of a derived ditransitive verb can appear as part of the second position auxiliary complex in Serrano (Hill and Hill 2019: 534).

- (39) Serrano (Hill and Hill 2019: 534)

ama? ymy-j=vy=**chi?***kuuhan-ichuna-qa?*

DIST 2SG.PRO-ACC=3SG.SBJ=1PL.OBJ call-BEN-IFUT

'He is going to call you for us.'

The applicative function in Pahka'anil, as we have been describing elsewhere in NUA, is carried by a single verbal suffix *-(a)na*. This benefactive-applicative suffix occurs with what Voegelin (1935) refers to as the "*a*-increment", a vowel which may harmonize under certain conditions. The only difference in form between the benefactive and causative suffix is that the causative suffix *-(i)na* occurs with a distinct "*i*-increment". The following examples are meant to illustrate the transitivity effect of both suffixes:

¹⁵ Hill and Hill (2019) use orthographic \$ to represent what they refer to as a voiceless, apico-alveolar fricative.

¹⁶ It is difficult to account for the *-in* transitivity in this example other than to posit that it has lexicalized as part of the verb stem 'to make bread.' On its own it appears obviously related to the PUA causative suffix (maintaining its pre-applicative position).

- (40) Pahka'anil: applicative (Voegelin 1935: 102–103)
- a. *ha'ibi'it* 'he is joking (INTR)'
 - b. *ha'ibi'-ana-t* 'he is teasing him'
- (41) Pahka'anil: causative + applicative (Voegelin 1935: 102–103)
- a. *yu'udzat* 'it is fading (INTR)'
 - b. *yu'udz-ina-t* 'he is washing it (TR)'
 - c. *yu'udz-ina-ana-t* 'he is washing it for him'

Interestingly, Voegelin (1935) dismisses the idea of a relationship between the two suffixes, since “no generally discernable meaning can be otherwise assigned to the vowel increments (98)”. He places both of these suffixes in the positions closest to the verb root, as we have seen in other NUA languages, with the causative appearing directly adjacent to it.

3.2 Syntax

Applied objects in NUA languages are basically symmetrical in character in comparison to their organic direct object counterparts. Applied objects can be promoted (i.e. appear as subjects) in passive just as direct objects can. We find some constituent order preferences, however, that seem clearly to privilege the applied object and speech act participants as primary objects, appearing before secondary objects. In double object constructions, where both objects marked with accusative (or oblique) case, we see this constituent order preference as in the following examples from Hopi (HDP 1997: 880) and Tümpisa Shoshoni (Central Numic; Dayley 1989: 184):

- (42) Hopi (HDP 1997: 880)
- nĩ' pumu-y iqaʔo-y mokyaaato-toyna*
 1SG 3PL-ACC my.corn-ACC wrap-APPL¹⁷
 'I am wrapping up my corn for them.'
- (43) Tümpisa Shoshoni (Dayley 1989: 184)
- waʔippü tangumm-i tüpa-nna tukummahanni-ŋkü-nna*
 woman[NOM] man-ACC pinenut-ACC cook-APPL-PTCP
 'The woman is cooking pinenuts for the man.'

Note that in both examples, the applied benefactive object appears before the direct object, although there remains some flexibility, at least in Tümpisa. Considering, however, the fact that applied benefactive objects are typically human, there may be a

¹⁷ The parsing of the Hopi examples is my own (TT).

semantic or pragmatic motivation, as opposed to a syntactic one, underlying the word order patterns we find.

Interestingly, Tümpisa allows applied objects to be postposed following the verb, where they may optionally appear in the unmarked (nominative) case. Compare (44) with (43) above:

- (44) Tümpisa Shoshoni
waʔippü tüpa-nna tukummahanni-ŋkü-nna tangummü
 woman[NOM] pinenut-ACC cook-APPL-PTCP man[NOM]
 ‘The woman is cooking pinenuts for the man.’

It would be helpful to have more prosodic information here to see whether the postposing of objects is common in discourse. Clauses don’t normally allow for two participants to appear in the nominative case, suggesting that perhaps a postposed object should rather be considered an adjunct to the main clause. Prosodic evidence might corroborate this hypothesis.

Both Ute (Southern Numic; Givón 2011) and Northern Paiute appear to be less flexible when it comes to the coding of applied and direct objects. In the latter language, however, any proposed object asymmetry can be attributed to a person hierarchy that privileges speech act participants over third persons and humans over non-humans. This is perhaps best illustrated by considering access to the object pronominal proclitic slot in Northern Paiute. Consider:

- (45) Northern Paiute
su=mokoʔni u-ka mi=kuhani-kki
 NOM=woman 3SG-ACC 1PL.EXCL=cook-APPL
 ‘The woman cooked it/that for us.’

- (46) Northern Paiute
ma-tu imi i=kia
 3.PROX 3PL 2=give
 ‘They’re giving you to him (as in marriage).’

As Givón (2011) demonstrates for Ute, when the benefactive applicative construction operates on an organically transitive clause, the resulting ditransitive treats the applied benefactive object differently, both syntactically and morphologically from the direct object. Note:

- (47) Ute (Givón 2011: 91)
ʔaa-ruachi-u magha-qa-amʌ
 new-child.OBJ-PL feed-PST-3PL
 ‘(s/he) fed the babies’

(48) Ute (Givón 2011: 91)

mamachi ʔaa-ruachi-u magha-ku-qa-ʔu
 woman new-child.OBJ-PL feed-**APPL**-PST-3SG
 ‘(s/he) fed the babies for the woman’

Givón asserts here that the “word order is strict, with the benefactive invariably preceding the patient object” (2011: 91). This is similar to what we have shown for Northern Paiute, above. Note that object agreement also rests with the benefactive (third person singular) rather than the patient (third person plural), which is shown to be ungrammatical. Compare (48) with (49) below:

(49) Ute (Givón 2011: 91)

**mamachi ʔaa-ruachi-u magha-ku-qa-amu*
 woman new-child.OBJ-PL feed-**APPL**-PST-3PL

These same restrictions apply to organically ditransitive clauses with verbs like ‘give’, ‘show’, and ‘tell’. Under the circumstances outlined here, therefore, there doesn’t appear to be asymmetry between applied and direct objects.

Across NUA, the ACs appear to be obligatory—that is, there is no alternative, non-applicative construction for encoding a benefactive argument. As Dayley (1989) points out for Tümpisa, “[t]he process of forming benefactives from transitive verbs is completely productive, and in fact it is obligatory whenever a benefactive participant is involved in the action” (1989: 117).

The universality of this observation may not be entirely true for NUA languages, however. Hill and Hill (2018: 328) provide the following pair of examples from Acjachemem, a Coastal Cupan language alongside Luiseño:

(50) Acjachemem (Hill and Hill 2018: 328)

maxannaʔ sopul punʔxanʔt-a kwamool-a
 give.IMP one peso-ACC fisherman-ACC
 ‘Give one peso to the fisherman!’

(51) Acjachemem (Hill and Hill 2018: 328)

ni-jk ngavvaʔ na-kchiijoʔ -ka-j
 1SG-DAT sharpen.IMP 1SG-knife-POSS-ACC
 ‘Sharpen my knife for me!’

In (50), the organically trivalent verb ‘give’ licenses two accusative case-marked objects, while the bivalent verb ‘sharpen’ in (51) marks the benefactive with the dative case. This suggests that perhaps, in Acjachemem at least, the AC is not obligatory, as it is in most other NUA languages. This merits further exploration. In elicitation Northern Paiute speakers will sometimes offer examples like (52), where it is possible to find

beneficiaries marked with one of the locative cases, in this instance, the allative *-tu*, without using the AC.

(52) Northern Paiute

ma-tu i i=ma-tipuni
 3.OBV-LOC you 1SG.OBJ=IP:by.hand-awake
 ‘You woke me up for him.’

This construction may in fact have been produced under the influence of English mainly to accommodate the native English speaker present, me, in direct elicitation. It has not to date been found anywhere in the natural speech corpus.

3.3 Semantics

The languages under consideration in this study each have just one marker functioning as an applicative morpheme, as opposed to an array of markers specialized for bringing distinct semantic participants into position as core arguments. The dominant semantic role assigned to such status is that of benefactive across all the NUA languages, and ACs are, by and large, the only means for expressing a benefactive participant. There is, however, some inevitable variation in semantic role arising as a natural consequence of the semantic properties of the host verbs, as in the ‘yell’ examples in (53) and (54) below.

Across the Numic subfamily are reflexes of the applicative suffix *-(ŋ)ki*, with minimal variation and which behaves most like a benefactive-applicative suffix with active-intransitive and most transitive verbs. Note the following examples from Northern Paiute and Tümpisa Shoshoni:

(53) Northern Paiute

wohi ‘yell’ *wohi-kki* ‘call out to’
timi ‘buy’ *timi-kki* ‘buy for’

(54) Tümpisa Shoshoni

tükümmüi ‘talk’ *tükümmüi-ŋkün* ‘interpret for’
pai-tsü ‘yell’ *pai-tsü-ŋkün* ‘yell at’

The most significant exception to this general exclusivity is apparent in the Numic subgroup. Here we find causative-benefactive syncretism associated with the AC. With what could be generally classified as stative and patientive intransitives, the suffix signals the addition of an agent or cause to the derived valence—that is, *-(ŋ)ki* takes on the function of a morphological causative.

(55) Northern Paiute

tiʔoyai ‘be sick’ *tiʔoyai-kki* ‘make sick’
iwi ‘sleep’ *iwi-kki* ‘make sleep’

(56) Tümpisa Shoshoni

kottoʔeh ‘boil (INTR)’ *kottoʔe-ŋkūn* ‘boil (TR)’
sünnünnüki ‘shiver’ *sünnünnüki-ŋkūn* ‘shake’

Basic posture verbs (and patientive intransitives like *wiʔiu* ‘to fall’ and *wiʔikiu* ‘to drop’) are treated as stative intransitives, when it comes to the AC, in causative function.

(57) Northern Paiute

sisiʔma *u-kuba* *mi=wini-kki-u-ʔyai-na*
 sometimes 3SG.ACC-upon 1PL.EXCL.ACC=stand- APPL-PNC-HAB-PTCP
 ‘...sometimes (they) made us stand on that.’ (NK: Boarding School Days)

Agentive ambitransitives, like verbs of ingestion, follow the same pattern, but with the flavor of a more mediated, or indirect, causative. The indirect reading could be explained by the fact that such examples involve human causees.

(58) Northern Paiute

mi=tika-kki-u-si *nimmi* *tiwau* *mia-si*
 1PL.EXCL=eat-APPL-PNC-SEQ we.EXCL.NOM again go.SG-SEQ
 ‘Having allowed us to eat, we went on again and...’ (NK: Boarding School Days)

What is clear from the Northern Paiute data, but has not always been asserted in descriptions of other Numic languages, is that causative-benefactive syncretism is not a simple matter of the transitivity of the base verb. Rather, the semantics of the base verb helps determine the outcome of the AC as either a morphological causative or benefactive applicative. Tables 2 and 3 are a partial inventory of verbs that enter into the AC in Northern Paiute, divided by semantic output.

Table 2: Verbs with which *-ki* has a benefactive-applicative function in Northern Paiute.

VERB	GLOSS	APPLICATIVE	DERIVATION
<i>hani</i>	prepare; do	<i>hani-ki</i>	prepare for; give
<i>hima</i>	take (in a container)	<i>hima-ki</i>	take/ get for
<i>kuhani</i>	cook	<i>kuhani-ki</i>	cook for
<i>kutsa</i>	split wood	<i>kutsa-ki</i>	split wood for
<i>kwi[h]i</i>	get; obtain	<i>kwi[h]i-ki</i>	get for; acquire for
<i>mabutuʔi</i>	roll (TR)	<i>mabutuʔi-ki</i>	roll for
<i>matipuni</i>	wake up (TR)	<i>matipuni-ki</i>	wake up for

Table 2 (continued)

VERB	GLOSS	APPLICATIVE	DERIVATION
<i>mida</i>	extend; stretch	<i>mida-ki</i>	extend for
<i>nanisutihai</i>	pray	<i>nanisutihai-ki</i>	pray for
<i>nisagwaiʔi</i>	curse	<i>nisagwaiʔi-ki</i>	be cruel to
<i>noho</i>	roast under ashes	<i>noho-ki</i>	roast for
<i>noo</i>	carry	<i>noo-ki</i>	carry for
<i>pida</i>	build a fire	<i>pida-ki</i>	build a fire for
<i>sita</i>	be bad; angry	<i>sita-ki</i>	be angry at
<i>suaʔi</i>	laugh; smile	<i>suaʔi-ki</i>	laugh at; flirt with
<i>tibo</i>	write (INTR)	<i>tibo-ki</i>	write for
<i>timi</i>	buy	<i>timi-ki</i>	buy for
<i>tiničui</i>	teach; tell stories	<i>tiničui-ki</i>	tell stories to
<i>tinikwihi</i>	sing	<i>tinikwihi-ki</i>	sing for
<i>tsagwii</i>	pick up	<i>tsagwii-ki</i>	pick up for
<i>tsikaʔa</i>	cut	<i>tsikaʔa-ki</i>	cut for
<i>tsiʔwoŋi</i>	comb	<i>tsiʔwoŋi-ki</i>	comb for
<i>wohi</i>	yell	<i>wohi-ki</i>	yell at; call out to
<i>yadua</i>	talk.sg	<i>yadua-ki</i>	interpret
<i>yurŋa</i>	dip into	<i>yurŋa-ki</i>	scoop up

Table 3: Verbs with which *-ki* has a causative function in Northern Paiute.

VERB	GLOSS	CAUSATIVE	DERIVATION
<i>čičikwi</i>	sit.DISTR (INTR)	<i>čičikwi-ki</i>	put up.DISTR (TR)
<i>kakia</i>	wear around neck	<i>kakia-ki</i>	have/ make wear
<i>kati</i>	sit.sg (INTR)	<i>kati-ki</i>	set/put up.sg (TR)
<i>kwissi</i>	weave	<i>kwissi-ki</i>	lasso
<i>mani</i>	do	<i>mani-ki</i>	cause to be; occur
<i>manji</i>	cross water; wade	<i>manji-ki</i>	take across
<i>nai</i>	burn (INTR)	<i>nai-ki</i>	burn (TR)
<i>niiima</i>	feel; be injured	<i>niiima-ki</i>	make hurt; injure
<i>pakomamaʔi</i>	wash the face	<i>pakomamaʔi-ki</i>	make/ have wash
<i>patakwitsia</i>	shine (INTR)	<i>patakwitsia-ki</i>	shine (TR)
<i>patawi</i>	blow up; stir up (INTR)	<i>patawi-ki</i>	blow up (TR)
<i>pisa</i>	be good	<i>pisa-ki</i>	cure; make well
<i>piti</i>	arrive	<i>piti-ki</i>	bring
<i>punni</i>	see	<i>punni-ki</i>	show
<i>tiʔoyai</i>	be sick	<i>tiʔoyai-ki</i>	make sick
<i>tika</i>	eat	<i>tika-ki</i>	make/have eat
<i>timanaga</i>	be paid	<i>timanaga-ki</i>	pay
<i>toki</i>	be correct	<i>toki-ki</i>	do correctly
<i>wadzi</i>	hide	<i>wadzi-ki</i>	lose
<i>wakwami</i>	stand.DISTR (INTR)	<i>wakwami-ki</i>	stand.DISTR (TR)
<i>wini</i>	stand.sg (INTR)	<i>wini-ki</i>	stand.sg (TR)

Table 3 (continued)

VERB	GLOSS	CAUSATIVE	DERIVATION
<i>yuai</i>	stop (INTR)	<i>yuai-ki</i>	stop (TR)
<i>ʔiditi</i>	be hot	<i>ʔiditi-ki</i>	make hot
<i>ʔiwi</i>	sleep	<i>ʔiwi-ki</i>	make sleep
<i>ʔyui</i>	be warm	<i>ʔyui-ki</i>	make warm

Clearly, the semantics of the base verb drives the output of the AC in Northern Paiute. Dayley (1989), in his grammar of Tümpisa Shoshoni, draws near to that conclusion by dividing intransitives into “statives and actives”, but provides little evidence to demonstrate that they behave either similarly or differently, despite the fact that nearly all in his list of base verbs entering into the causative construction are stative or patientive intransitives. His sample set of stative and patientive intransitive base verbs includes what is in Table 4:

Table 4: Verbs with which *-ŋkūn* has a Causative Function in Tümpisa Shoshoni.

<i>hapi</i> ”	‘lie.sg’	<i>hapi-ŋkūn</i>	‘to make fall’
<i>Hipittain</i>	‘to get drunk’	<i>hipittai-ŋkūn</i>	‘to intoxicate’
<i>hüttsawū</i>	‘to be cool’	<i>hüttsawū-ŋkūn</i>	‘to cool’
<i>kammah</i>	‘to be sick’	<i>kamma-ŋkūn</i>	‘to make sick’
<i>kuppā</i>	‘to cook (INTR)’	<i>kuppā-ŋkūn</i>	‘to cook (TR)’
<i>kotto’eh</i>	‘to boil’	<i>kotto’e-ŋkūn</i>	‘to boil (TR)’
<i>kwitasu’u</i> ”	‘to fart’	<i>kwitasu’u-ŋkūn</i>	‘to make fart’
<i>mi’a</i>	‘to go’	<i>mi’a-ŋkūn</i>	‘to send’
<i>pitsi</i>	‘to suckle’	<i>pitsi-ŋkūn</i>	‘to nurse’
<i>potso’in</i>	‘to be wet’	<i>potso’i-ŋkūn</i>	‘to moisten’
<i>sii</i> ”	‘to urinate’	<i>sii”-ŋkūn</i>	‘to make urinate’
<i>sünnünnüki</i>	‘to shiver’	<i>sünnünnüki-ŋkūn</i>	‘to shake’
<i>tammayain</i>	‘to be crazy’	<i>tammayai-ŋkūn</i>	‘to drive crazy’
<i>tamminoi</i>	‘to be tired’	<i>tamminoi-ŋkūn</i>	‘to make tired’
<i>üitsü’in</i>	‘to be cold’	<i>üitsü’i-ŋkūn</i>	‘to make cold’
<i>üppüih</i>	‘to go to sleep’	<i>üppüi-ŋkūn</i>	‘to make sleep(y)’
<i>ütüin</i>	‘to be hot’	<i>ütüi-ŋkūn</i>	‘to heat’
<i>watsi</i> ”	‘to be lost’	<i>watsi-ŋkūn</i>	‘to lose’
<i>wükkatüh</i>	‘to be a pile’	<i>wükkatü-ŋkūn</i>	‘to stack’
<i>yuhupükkan</i>	‘to get fat’	<i>yuhupükka-ŋkūn</i>	‘to fatten’

Benefactive applicatives throughout NUA appear to be most productively associated with transitive base verbs and fairly productive with agentive intransitives. Causative-benefactive syncretism is found in Numic and thoroughly attested in Northern Paiute (Thornes 2003: 383–387) as well as many other languages of North America and

around the world—for example, Hualapai (Ichihashi-Nakayama 1996) and several languages of Australia (Austin 1997 and Austin, this volume).

Even in those NUA languages with distinct benefactive and causative forms, such as Cupeño, Pahka'anil, and Hopi, there appears the same division of labor—benefactives are productive with transitive verbs and causatives are rare with transitives but productive (to the point of lexicalization) with stative intransitives, as we will see below. The nature of causative-benefactive syncretism is key for understanding the impacts of ACs in NUA languages, and so information on causation and causative morphology has been included here.

I turn now to some interesting discourse-related properties of the AC. The focus here will be on Northern Paiute, but can be seen as instructive for this and future surveys of related and neighboring languages. More thorough studies are needed of the other NUA languages, not only to seek confirmation (and clarity) of what has been found in this one, but also to provide more clues as to the development of causatives and applicatives across the family.

3.4 Discourse

Some of the Northern Paiute data provide evidence whereby core arguments are rearranged in the AC, but without valence increase, in a way that could indicate a boost in topicality of the participant(s) encoded in the applied phrase. Consider the following examples with the transitive verb meaning 'to tell stories to'. Example (59) illustrates it as the main verb in a base transitive construction. Looking at example (60) from an ethnohistorical narrative, we have the speaker and her family meet with others to gather wild roots. She and her family are central to the narrative.

(59) Northern Paiute

imi i=tiničui
2PL.SBJ 1SG.OBJ=tell.story
'You tell me stories.'

(60) Northern Paiute

nimmi pokwa-na, umi mi=tiničui-kki-u
1PL.EXCL.NOM lie.PL-SIM 3PL.SBJ 1PL.EXCL.OBJ=tell.story-APPL-PNC
'While we lay down, they told us stories.' (NK: Root-digging Time)

One can speculate that the AC in (60) is functioning as a kind of voice construction by indicating the importance or centrality of the speaker and her family's experience. Taken together, these examples illustrate that the valence does not change, either with the applicative suffix or without it. Alternatively, the benefactive semantics of the applicative

tive suffix may be on display here in conjunction with an ethical dative function we find elsewhere in NUA.¹⁸

As far back as Sapir (1930) is suggested an “ethical dative” sense for the benefactive-applicative function in Southern Paiute (Southern Numic)—a function in which the “indirect (sic) object is not really affected by the action at all but is merely interested in it. Such ethical datives with first person indirect object are frequently employed to indicate an affectionate attitude on the part of the speaker” (1930: 145).

It turns out to be a simple matter, with certain verbs, to elicit more of Sapir’s “dative of interest” scenarios that are acceptable to elder Northern Paiute speakers. Note:

(61) Northern Paiute

i=nodikwa ni mia-kki-si
 1SG.POSS=wife 1SG.NOM go.SG-APPL-SEQ
 ‘My wife left me (~I let her go).’

Of interest here is the fact that the affected first person appears in its nominative case form. By default, then, the notional subject of the base intransitive verb is accusative, as there can only be one nominative form per clause in Northern Paiute. The parenthetical alternative interpretation of (61) would cast the AC in its permissive causative function. However, compare:

(62) Northern Paiute

i=hamma?a ni yaʔi-kki-si
 1SG.POSS=elder.sister 1SG.NOM die.SG-APPL-SEQ
 ‘My big sister died on me.’

In (62), however, a parallel alternative seems faulty, since ‘I’ did not cause my elder sister’s death, but was obviously affected by it. The following examples present a similar conundrum for analysis. Consider example (63) from a conversation about a man that had recently lost his wife. Here, the intransitive subject of the first clause (the woman) is presented morphosyntactically as the applied phrase with accusative case-marking. As an alternative, the accusative case-marking on ‘woman’ could be a reflection of the dependent nature of the sequentially marked clause.¹⁹ Indeed, the accusative marker here could be interpreted as marking the dependent clause as a whole, as though it were itself an argument of the independent clause that follows it. At this point in the conversation, the speaker could be seen as emphasizing the affectedness/interest of the nominative argument (the man) in the second clause:

¹⁸ I would like to thank Denis Creissels for this observation.

¹⁹ Thanks to Albert Álvarez González for this observation, based upon similar phenomena in other Uto-Aztecan languages.

(63) Northern Paiute

ka=mokoʔni yaʔi-kki-si, su=nana pi=siʔmi nobi-ča-ʔyu
 ACC=woman die-APPL-SEQ NOM=man RESTR=only house-HAVE-PRED
 ‘When that woman died, the man lived alone.’ (JB: Driving to Drewsey)

When offered a grammatically and pragmatically neutral alternative—a simple sequence of two intransitive (non-applicative) clauses with both subjects case-marked nominative, it was deemed perfectly acceptable to speakers, but without the same emphasis:

(64) Northern Paiute

su=mokoʔni yaʔi-si, su=nana pi=siʔmi nobi-ča-ʔyu
 NOM=woman die-SEQ NOM=man RESTR=only house-HAVE-PRED
 ‘When the woman died, the man lived alone.’

Examples like these appear to support a discourse-centered function of the AC in Northern Paiute. That is to say, once again, that ACs do more than transitivize. Transitivity is a side-effect of the basic function of ACs, namely, to assign discourse prominence to otherwise peripheral (or, at least, affected) arguments. In NUA languages, and no doubt elsewhere, the participant role being given such prominence is entirely dependent upon the semantics of the verb of the base construction. More research is needed to account for such discourse effects.

A more covert property of the AC in Northern Paiute is revealed in consideration of its high frequency of use in some first person narratives, belying a stronger interest on the part of the speaker. A narrative offered by one speaker described her residential boarding school experience. Its high frequency of ACs (nearly two dozen) merits consideration, since one would otherwise rank the AC as a rather infrequent construction type. Clearly, its frequency in this narrative is related to the fact that the key players, the speaker and her elder sister, were not in control of the events that unfolded for them (or to them) in the boarding school context. Any further exploration of the discourse context(s) that trigger the use of the AC lies beyond the scope of the present study.

4 Denominalization and applicativization in Northern Paiute

One phenomenon that has to now not received much (if any) attention in the available descriptions of NUA languages is the presence of an applicative-like structure associated exclusively with denominal verbs. This phenomenon is present in Northern Paiute. Denominalization is found across the Uto-Aztecan language family (Haugen 2008) and involves deriving a verb from a noun using one of several suffixes with meanings

ranging from MAKE, HAVE, WEAR, and HUNT/GATHER, to name a few. The following examples provide a sample from NUA:

- (65) Hopi: MAKE (Hill 2003: 225, cited in Haugen 2008)
kii-ta
 house-**MAKE**
 ‘build a house’
- (66) Northern Paiute: HAVE (Thornes 2003: 131)
pisa miawo-gaʔyu
 good knee-**HAVE**
 ‘to have good knees (idiom. “to have a knack for showing up at mealtime”)’
- (67) Southern Paiute: PUT ON (Sapir 1930: 135, cited in Haugen 2008)
maavī-ai
 clothing-**PUT.ON**
 ‘puts on (his) clothes’
- (68) Pahkaʼanil: GATHER (Voegelin 1935: 132, cited in Haugen 2008)
mac-kay-ilat
 wild.oats-**GATHER-go**
 ‘He is going to gather wild oats.’

The MAKE form in Northern Paiute is *-tu* and can have a secondary derivation that allows for the addition of a benefactive participant with the addition of *-ʔi*, as in the following examples:

- (69) Northern Paiute
 a. *ni kopiʔi-tu*
 1SG coffee-**MAKE**
 ‘I made coffee.’
 b. *ni i=kopiʔi-tu-ʔi*
 1SG you=coffee-**MAKE-BEN.APPL**
 ‘I made coffee for you.’
- (70) Northern Paiute
 a. *watta kutia-tu*
 pole fence-**MAKE**
 ‘make a pole fence’
 b. *umi i=kutia-tu-ʔi*
 3PL me-fence-**MAKE-BEN.APPL**
 ‘They’re making a fence for me.’

Note that the valence shift is just as it is with the more canonical benefactive-applicative constructions we have been exploring up to now. Here we see the valence increase through the addition of a human beneficiary of the action coded by the denominal verb. The *-ʔi* suffix has no other known function elsewhere in the language, and in all examples in my corpus, I only find it in consort with the *-tu* denominalizer. That said, it appears to be fully productive, but only in this particular denominalizing context.

As mentioned elsewhere in this paper, there are, throughout the Uto-Aztecan language family, sporadic alternations between final vowels [a] and [i] patterning with transitivity. As described in Thornes (2013: 254–255), one finds at least a couple of lexicalized examples of this alternation aligning [a] with intransitive and [i] with transitive. Note:

(71) Northern Paiute (Thornes 2013: 254–255)

- | | |
|-----------------|-----------------|
| a. <i>yadua</i> | b. <i>yadui</i> |
| ‘talk’ | ‘talk to X’ |

(72) Northern Paiute (Thornes 2013: 254–255)

- | | |
|---------------------|--------------------|
| a. <i>timadza’a</i> | b. <i>timadzai</i> |
| ‘help (INTR)’ | ‘help X (TR)’ |

The path from causative to general transitive is a well-trodden one. That it found its way to an applicative function, and to a particular destination where it could flourish seems, at least on the face of it, not far-fetched. Clearly, more work needs to be done in order to explore constraints on the benefactive-applicative function of the *-ʔi* suffix in Northern Paiute and its presence elsewhere in the family.

Applicativization restricted to verbs formed by means of a particular derivational operation is rare. A possible historical scenario²⁰ harkens to a time when the *-tu* denominalizer was still an independent verb and *-ʔi* was a productive applicative suffix. Replacement by another applicative suffix may have corresponded with the persistence of *-tu* only in Noun + Verb compounds and the lexicalization of *-ʔi*. As we have already seen, the association of [i] with transitivity and transitivization is well supported across the family. Further support can be reconstructed in our analysis of the Hopi and Serrano forms from Table 1. Across NUA, we see the bits and pieces of causative-applicative developments. An additional such development, briefly explored here, may have persisted in this particular denominalizing context, whose historical development would look something like: *[N + V-APPL] > [N-DENOM-APPL].

²⁰ I thank Denis Creissels for this observation.

5 Summary and conclusions

This overview of applicatives and applicative constructions in Northern Uto-Aztecan languages is necessarily incomplete, but is hoped to provide some needed direction for undertaking further study. Here I summarize the following areas and features of variation across the languages as well as the connections, both historical and typological, between them.

Morphology

- Each NUA language carries only a single suffix, adjacent to the verb stem, that is clearly identifiable as an applicative. Allomorphy is minimal, and in Numic in particular, the applicative morpheme appears resistant to the consonant mutation processes one expects with most verb suffixes. In languages with separate causative and applicative morphemes, the causative appears closer to the root than the benefactive applicative.
- The distribution of the applicative in Numic distinguishes stem-compounding from secondary verb constructions by following the former and preceding the latter. The languages of NUA demonstrate quite transparent origins of applicatives from verbs meaning ‘give’, at least for Numic and Takic. Some form of productive verb-verb compounding served as a likely vehicle for the development of GIVE into an applicative suffix.

Syntax

- NUA applicatives are typically obligatory applicatives.
- Applied objects appear to carry the same privileges of operation as organic, direct objects. That is to say, there does not appear to be any restrictions on the appearance of the applicative in combination with other voice or valence-altering operations like the passive and antipassive.
- In Northern Paiute, at least, it would appear that the applicative could be considered first in order of operation—that is, the passive and/or antipassive effect(s) are on the applied object primarily. We have also seen that there are constituent ordering patterns and access to registration on the verb that prefer speech act participants or human objects—not driven by the syntax.

Semantics

- Applicatives in NUA languages appear mainly to signal the addition of a syntactic object playing the semantic role of beneficiary with most transitive and active intransitive verbs. In the Numic languages, the same morpheme operates like a causative with mostly intransitive stative and patientive verbs, signaling an additional external cause or agent to the event frame.

- In other NUA languages, a morphological causative is distinct from the benefactive applicative, but the two combine mainly along lines of the same division of semantic verb classes and bearing the same functional split as we have seen with the single form causative-benefactive morpheme we see throughout Numic. The morphological causative in Pahka'anil, for example, is said to appear mainly with stative intransitives and “only rarely” with transitive stems, whereas the benefactive appears productively with transitive and active verbs.

Discourse

- Evidence from naturally occurring speech has been found that suggests a possible discourse basis for the development and distribution of the applicative and the outcome of the AC. Such evidence has been found in Northern Paiute by looking at the discourse prominence or topicality of applied objects in parallel constructions and the pervasiveness of the AC in certain autobiographical narrative contexts.
- These observations, if corroborated elsewhere, could be seen as supporting the idea that ACs encode topical participants that are not present organically. The role of these participants is determined by the semantics of the main verb. Traces of the historical relationship of the applicative suffix to a GIVE (secondary) verb, when combined with a particular main (primary) verb can be felt in the output of the construction.
- As a derivational process, applicatives combine to create new, if related, lexical items. In NUA languages, the relationship between causative and applicative follows two paths. In one, causative and applicative morphemes are formally distinct, and are most productive with particular verb types, generally centering around whether the verbs are stative (non-active) or active and only incidentally relating to transitivity. In the other, causative and applicative functions are carried by the same form and are fully productive, but their semantic output is also dependent largely upon the same stative-inactive versus active semantic division of the verbs with which it combines.

Abbreviations

ACC	accusative
AGR	agreement
APPL	applicative
APASS	antipassive
ASP	aspect
AUX	phasal auxiliary
BEN	benefactive
CAUS	causative
CISL	cislocative

DAT	dative
DIFF	diffuse
DIR	directional
DIST	distal
DISTR	distributive
DUR	durative
ERG	ergative
EXCL	exclusive
FUT	future
HAB	habitual
IMP	imperative
INTR	intransitive
IP	instrumental prefix
IPFV	imperfective
LOC	locative
LOGO	logophoric possession
MOD	modal
NFUT	non-future
NOM	nominative
NMLZ	nominalizer
NPN	non-possessioned noun
OBJ	object
OBV	obviative
PASS	passive
PERF	perfect
PFV	perfective
PL	plural
PLUR	pluractional
PNC	punctual
POSS	possessive
PRED	predicative
PRO	pronominal
PROX	proximate
PRS	present
PRT	particle
PST	past
PTCP	participle
QUOT	quotative
RESTR	restrictive pronominal
SBJ	subject
SEQ	sequential
SG	singular
SIM	simultaneous
SUB	subordinator
TR	transitive
TRNSL	translocative
-	default affix boundary
~	reduplicative boundary
=	clitic boundary

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16 Applicative constructions in Uto-Aztecán languages from Northwestern Mexico

Abstract: This chapter proposes a description of applicative constructions in five Uto-Aztecán (UA) languages (Pima Bajo, Northern Tepehuan, Tarahumara, Guarijío and Yaqui) spoken in Northwestern (NW) Mexico. Two main types of applicative can be distinguished in each language. The first type is an optional peripheral applicative, in which the applied phrase refers to a non-core participant (usually, a beneficiary) that has been promoted to the object position comparing to the base construction, in which it can be encoded as an oblique (usually, introduced by a benefactive postposition). The second type is an obligatory central applicative, in which the applied phrase refers to a central (essential) non-patient participant in the event denoted by the verb (recipient/goal, stimulus, source, etc.); this participant cannot be encoded at all in the construction with the underived form of the same verb. In both types, the applied object is usually a human participant. After exploring some aspects of the syntax, the semantics and the pragmatics of applicativization in these languages, the study also presents the causative/applicative syncretism found in the data, and discusses some cases of applicative lookalikes (lexicalized applicatives, applicative deponents).

1 Introduction

This chapter proposes a description of applicative constructions in five Uto-Aztecán (UA) languages (Pima Bajo, Northern Tepehuan, Tarahumara, Guarijío and Yaqui) spoken in the states of Sonora and Chihuahua in Northwestern (NW) Mexico. These languages belong to the Sonoran sub-group of Southern Uto-Aztecán languages (Miller 1984); two are from the Tepiman branch (Pima Bajo and Northern Tepehuan) and three from the Taracahitan branch (the two closely related Tarahumara and Guarijío, and Yaqui). According to INEGI (2020), there are approximately 1,037 speakers of Pima Bajo (PB), 9,855 of Northern Tepehuan (NT), 91,554 of Tarahumara (TA), 2,139 of Guarijío (GU), and 19,376 of Yaqui (YQ).

The data for this study come from reference grammars (Brambila 1953 for Norogachi TA, Burgess 1984 for Western TA, Dedrick and Casad 1999 for YQ, Miller 1996 for Mountain GU, Félix 2005 for River GU, Bascom 1982, 2003 for NT, Estrada 2014 for PB) and dictionaries (Brambila 1976 for Norogachi TA and Estrada et al. 2004 for YQ), as well as from previous studies directly or indirectly related to the study of applicative constructions in the UA languages considered here (Caballero 2008 for Choguita TA, Félix 2007, Medina 2002, Ávila 2012, Casas 2018 for GU, Álvarez 2007, Guerrero 2007,

Harley et al. 2009, Estrada-Fernández et al. 2015, Álvarez 2019, and Guerrero 2022 for YQ, Estrada 2007, Ramírez 2010 for PB, Ramos 2010, and Carrillo 2013 for NT).¹

Following the definition proposed in the position paper (Zúñiga and Creissels, this volume), applicative constructions are regarded here as constructions in which a morphologically derived verb form assigns a syntactic role other than S and A—usually, a role as direct object or P (DIRECT/PRIMARY APPLICATIVES or P-APPLICATIVES), but also, although less frequently, as indirect object or D (INDIRECT/SECONDARY APPLICATIVES or D-APPLICATIVES) and as oblique role or X (OBLIQUE APPLICATIVES or X-APPLICATIVES)—to a participant (the APPLIED PHRASE), which in the base construction either requires a non-core coding different from its coding in the applicative construction (OPTIONAL APPLICATIVES) or cannot be expressed at all (OBLIGATORY APPLICATIVES).

Since the applied object is usually an additional participant towards which the activity of the referent A is directed, P-applicativization is a way to encode a type of functional alternation named the undirected/directed alternation (Creissels, forthcoming), which is represented by an undirected/directed verb pair in which the subject of the undirected verb form and the directed verb form is the same, but the directed form has an additional object.

P-applicativization represents only one of the possible strategies for encoding the undirected/directed alternation, namely a morphologically oriented way with the use of a privative marking on the undirected base verb. The other possibilities are ANTIPASSIVIZATION (another morphologically oriented alternation with a privative marking this time on the directed base verb), the use of an EQUIPOLLENT marking (both undirected/directed verb forms are formally related but they have the same degree of complexity, which implies a non-oriented alternation), the use of LABILE verb forms (another non-oriented alternation in which the same form is used for expressing the undirected and the directed verbs), and the use of SUPPLETIVE verb forms (another non-oriented alternation in which two different lexical verbs are used for expressing the undirected and the directed verbs).²

Two main types of applicative constructions can be found in the five Uto-Aztecan languages under study. The first type is an optional peripheral applicative, in which the applied phrase is referring to a non-core participant (usually, a beneficiary) that has

¹ As the data come from different sources and authors, some discrepancies in the glosses and transcriptions may appear between examples of the same language. We have decided to homogenize the gloss when strictly necessary and to keep the original transcription as long as it does not affect the interpretation of the data.

² The same formal possibilities are found for the non-causal/causal alternation (Haspelmath 1993; Creissels, forthcoming), which is represented by a non-causal/causal verb pair in which the subject of the non-causal verb form is the object of the causal verb form, and the causal form has a new agentive (causer) subject. In addition to the equipollent, labile, and suppletive possibilities, the two morphologically-oriented alternations are, in this case, causativization (characterized by a privative marking on the non-causal base verb) and decausativization (characterized by a privative marking on the causal base verb).

been promoted to the object position comparing to the base construction in which it can be encoded as an oblique (usually, introduced by a benefactive postposition). The second type is an obligatory central applicative, in which the applied phrase is referring to a central (essential) non-patient participant in the event denoted by the verb (recipient/goal, stimulus, source, etc.) and this participant cannot be encoded at all in the construction with the underived form of the same verb. One important feature shared by both types is that the applied phrase has to usually refer to an animate (mostly human) participant.

The five Uto-Aztecan languages considered in this study present both types of applicative constructions but while some languages use the same marker for encoding both types, other languages have dedicated markers for benefactive applicatives. A pervasive overlap between transitivization, causativization and applicativization is also present in these languages. In addition to applicativization, another productive strategy is possible for encoding the undirected/directed alternation in TA and GU, since the presence of a verbal pattern involving the change of the final vowel of the verb stem implies the possibility to have an undirected/directed alternation encoded via an equipollent marking.

The structure of this chapter is as follows. Section 2 presents the main aspects of the morphosyntax in the UA languages of NW Mexico. Section 3 describes the different constructions and suffixes used in these languages for applicativization, and also presents the final stem vowel alternation corresponding to the equipollent marking of the undirected/directed alternation found in TA and GU. Section 4 highlights some aspects of the syntax, the semantics and the pragmatics of applicativization in the languages under study. Section 5 is focused on the causative-applicative syncretism found in the data. Section 6 discusses some cases of applicative lookalikes (lexicalized applicatives, applicative deponents). Lastly, Section 7 provides a summary of the main conclusions.

2 The basics of morphosyntax in UA languages from NW Mexico

UA languages from NW Mexico are agglutinative languages, with an important use of suffixes. The alignment system is nominative-accusative, but while YQ presents a case marking distinction for core noun phrases (NOM: zero, ACC: *-ta*, with the exception of plural object NPs that are not case-marked, as in [1b]), in the other four UA languages, core NPs are not case-marked.

Regarding the word order in neutral declarative sentences, YQ is probably the only language with a strong tendency for an SOV word order; PB and TA show a tendency for free word order highly motivated by discourse factors, but still keep a preference for an SOV order; and GU and NT can also be considered as free word order languages, with a strong preference, however, for a VSO order.

The examples below illustrate these NP case-marking systems and these preferred word orders in the 5 languages.

(1) YQ: SOV

a. *U yoeme-Ø u-ka kari-ta jinu-k.*
 DET man-NOM DET-ACC house-ACC buy-PFV
 ‘The man bought the house.’

b. *U yoeme-Ø u-me kari-m jinu-k.*
 DET man-NOM DET-PL house-PL buy-PFV
 ‘The man bought the houses.’

(Álvarez 2021: 316)

(2) PB: SOV

Huaan a-kompaal mua.
 John 3NNTR.NSBJ-compadre kill.SG.OBJ.PFV
 ‘John killed his compadre.’

(Estrada 2014: 171)

(3) TA: SOV

Échi rejói saapá sikiré-ri.
 DET man meat cut-PFV
 ‘The man cut the meat.’

(Brambila 1976: 519)

(4) NT: VSO

Tí Mañúiri imó suiimáli.
 find.PFV Manuel DET deer
 ‘Manuel saw a deer.’

(Bascom 2003: 6)

(5) GU: VSO

Paápiari tetewá-ru hustína waní.
 early.morning see-PFV.EV Agustina John
 ‘Agustina saw John this morning.’

(Félix 2005:124)

In contrast to YQ, nominal core arguments are not case-marked in TA, GU, PB, and NT, thus showing a neutral alignment for core NPs. The nominative-accusative alignment is, however, clear in the pronominal system, but while YQ distinguishes between the accusative, the dative/oblique and the possessive marking, the other four UA languages use the same pronominal markers for these non-subject functions.

Examples in (6) illustrate that object pronouns in YQ are used for direct object (6a), and for indirect object with a few underived ditransitive verbs (as with *maka* ‘give’ in [6b], resulting in a double object construction). In other cases of trivalent verbs such as *nenka* ‘sell’ (6c) or *mabeta* ‘receive’ (6d), the indirect object is marked by the oblique pronoun plus the directional suffix *-u* or another postpositional marker, and these postpositional complements can be omitted.

- (6) a. *Inepo Bikam-me-u am toja-k.*
 1SG.NOM Vicam-PL-DIR 3PL.ACC take-PFV
 ‘I took them to Vicam.’
 b. *Inepo tomi-ta am maka-k.*
 1SG.NOM money-ACC 3PL.ACC give-PFV
 ‘I gave them money.’
 c. *Inepo ame-u tajo'o-ta nenka-k.*
 1SG.NOM 3PL.OBL-DIR clothes-ACC sell-PFV
 ‘I sold clothes to them.’
 d. *Inepo tomi-ta ame-betana mabeta-k.*
 1SG.NOM money-ACC 3PL.OBL-from receive-PFV
 ‘I received money from them.’
 (Estrada et al. 2004)

Examples from GU in (7) and from PB in (8) serve to illustrate how, contrary to YQ, the same non-subject pronouns are used in these languages (the same occurs in TA and NT) for direct object, indirect object, possessor and postpositional object.

- (7) a. *no'ó no'nó no'ó wewé-ru.*
 1SG.NSBJ father 1SG.NSBJ hit-PFV.EV
 ‘My father hit me.’
 b. *waní no'ó itoćá-re muní.*
 John 1SG.NSBJ send-PFV beans
 ‘John sent me beans.’
 (Félix 2007: 111)
 c. *tara-rú=ne muuní.*
 buy-PFV=1SG.SBJ beans
 ‘I bought beans.’
 (Félix 2005: 57)
- (8) a. *aan timitim am-niar.*
 1SG.SBJ tortillas 2SG.NSBJ-buy.PFV
 ‘I bought you tortillas.’

- b. *aan am-viin him tieend-am.*
 1SG.SBJ 2SG.NSBJ-COM go.CONT store-LOC
 'I go with you to the store.'
 (Estrada 2007: 88)
- c. *am-obi-ga-r*
 2SG.NSBJ-needle-AL-POSS
 'your needle'
 (Estrada 2014: 128)
- d. *aap tu'ut piees-tam.*
 2SG.SBJ dance.PFV party-LOC
 'You danced in the party.'
 (Estrada 2014: 188)

Another important difference between YQ and the other four languages is that third person object pronouns are not omitted in YQ, as can be observed in (6), contrary to what happens in the other 4 languages, in which third person object pronouns are usually dropped. In fact, in natural discourse, not only third person object pronouns in TA, GU, PB, and NT are commonly not overtly expressed, but also first and second persons, as exemplified in (9) with data from Norogachi TA, implying that much information has to be activated from the context in order to correctly identify core arguments.³

- (9) *kepi ne muku-mea; éruka mi'ri-méa-we?*
 NEG I die-FUT who kill-FUT-or
 'I won't die; or who is going to kill (me)?'
 (Brambila 1953: 571)

As for verbal morphology, tense/aspect/mood/valency information is usually marked by verbal suffixes. Of special interest for applicativization, is the presence of verb classes in TA and Tepiman languages, depending on some morphophonological changes in verbal stems.

According to the presence or absence of stress and final stem vowel alternation, three classes of verbal roots can be distinguished in TA (Caballero 2008), as shown in Table 1. Class I is represented by stressed roots with no morphophonological changes, class II by roots with morphophonological changes: class IIa corresponds to unstressed roots with no final root vowel alternation and with stress shift one syllable to the right when combined with stress-shifting suffixes, and class IIb to unstressed roots with final root vowel alternation and stress shift one syllable to the right when combined with stress-shifting suffixes.

³ As we will see below, this dropping can also be associated with the presence of the applicative marking on the verb (Brambila 1953: 53).

Table 1: Verb classes in Choguita TA (adapted from Caballero 2008: 99).

		CLASS I	CLASS IIA	CLASS IIB
Stress-neutral suffixes		<i>bené</i> ‘learn’	<i>suku</i> ‘scratch’	<i>rara</i> ‘buy’
	PFV	<i>bené-ri</i>	<i>sukú-ri</i>	<i>rará-ri</i>
	PROG	<i>bené-a</i>	<i>sukú-a</i>	<i>rará-a</i>
	IPFV	<i>bené-i</i>	<i>sukú-i</i>	<i>rará-i</i>
Stress-shifting suffixes	FUT.SG	<i>bené-ma</i>	<i>suku-méa</i>	<i>rari-méa</i>
	COND	<i>bené-sa</i>	<i>suku-sá</i>	<i>rari-sá</i>
	DES	<i>bené-nare</i>	<i>suku-náre</i>	<i>rari-náre</i>

As for Tepiman languages, they are known for having different verb stem forms associated with the imperfective/perfective distinction, with a reduced form usually being used for the perfective verb stem. For instance, in NT, the verb stem can present three different alternating forms (Bascom 2003: 67). The basic verb stem is found with imperatives, a second stem form with the final vowel of the basic form changing to *i* is usually found in present tense. Both verb stems are used in imperfective forms. The third verb stem, which is used for perfective aspects, is a reduced form of the basic stem in which the last syllable has usually been dropped. This truncated form ends with two identical vowels or with a combination of the last vowel of the root and an *i*. According to this stem alternation, three verb classes are distinguished as illustrated in Table 2: a) verbs that do not present stem alternation, b) verbs that have only two alternating stems, and c) verbs that present three stem alternants.

Table 2: Verb classes in Northern Tepehuan (adapted from Bascom 2003).

Verb class I:	<i>aráava-</i> ‘repeat’	
Verb class II:	<i>ááxta-</i> ‘throw’	only for imperfective
	<i>ááxti-</i> ‘throw’	only for perfective
Verb class III:	<i>isáá-</i> ‘plant’	only for imperatives
	<i>ixíi-</i> ‘plant’	only for imperfective
	<i>íi-</i> ‘plant’	only for perfective

In PB, the basic verb form is more unpredictable, although six different verb classes have been proposed (Estrada 2014: 66–75). Again, the perfective verb form is usually a truncated form without any suffixes.⁴

⁴ In Tepecano, another now extinct Tepiman language, the preterit stem of action verbs most frequently undergoes the dropping of the final consonant or syllable (Mason 1917: 351).

3 Applicativization in UA languages of NW Mexico

3.1 Pima Bajo

In PB, the suffix *-di/-id*⁵ can be attached to a base verb in order to promote to the object position a benefactive participant (10b) that can be encoded in the base construction as an oblique complement introduced by the benefactive postposition *vuika* ‘for’ (10a). This participant is thus peripheral, since it is not required by the argument structure of the base verb, and the applicative construction is optional, since the same semantic content is alternatively expressed in the base construction through a benefactive postpositional phrase.

- (10) a. *Marii ik mo’ovil soom Hosip vuika.*
 María DET.OBJ blouse sew.PFV Josefina for
 ‘María sewed a blouse for Josefina.’
- b. *Marii Hosip som-di ik mo’ovil.*
 María Josefina sew.PFV-APPL DET.OBJ blouse
 ‘María sewed a blouse for Josefina.’
 (Estrada 2007)

The applied object can receive a malefactive interpretation according to the negative meaning of the base construction, as can be observed in (11b). This example also illustrates a construction in which the applied object can be interpreted as the possessor of the original object participant (external possessor). Interestingly, the possessive relationship is here also overtly marked as an internal possession (*in-iipar* ‘my skirt’).

- (11) a. *irvin vainit-kar hikt-in!*
 rope knife-INS cut-IMP
 ‘Cut the rope with the knife!’
 (Estrada 2014: 132)
- b. *Marii in-hik-id-im in-iipar*
 María 1SG.NSBJ-cut-APPL-CONT 1SG.NSBJ-skirt
 ‘Maria cut off (me) my skirt.’
 (Estrada 2014: 178)

This benefactive/malefactive applicativization via *-di/-id* suffixation is restricted in PB to transitive base constructions (Estrada 2007: 91). However, this suffix can also be used in this language for licensing a human recipient as object. This is possible not only with

5 In some cases, this applicative suffix appears as *-ti*, *-ir*; or *-li* (as, for example, in narrative texts found in Ramírez 2010).

active intransitive verbs like in (12), but also with some transitive verbs of movement, like in (13).

- (12) a. *lii sɨ hink.*
 DIM.SG wolf shout
 'The little wolf shouted.'
 (Estrada 2014: 166)
- b. *higam tit-hink-id.*
 3PL.SBJ 1PL.NSBJ-shout-APPL
 'They shouted at us.'
 (Estrada 2014: 122)
- (13) a. *tomin hih-hodav.*
 money OBJ.INDF-throw.PFV
 'The money was thrown away.'
 (Estrada 2014: 231)
- b. *in-hodav-id-an.*
 1SG.NSBJ-throw-APPL-IMP
 'Throw them to me!'
 (Estrada 2014: 179)

In both examples, the applied object is a human recipient. The derived verb indicates that the action denoted by the base verb is directed towards the human participant encoded as an applied object. Other active intransitive verbs that function as applicative verbs with the same suffix in PB are *gig* 'gesticulate, wave hands' (applicative: *gig-id* 'greet someone') and *tii* 'talk' (applicative: *tii-di* 'say to someone').

The suffix *-di/-id* can also be used in PB for causativization depending on the base verb class (Estrada 2007). As can be observed in (14), when attached to inactive (stative and inchoative) intransitives, the suffix *-di/-id* derives causative transitives, while it derives applicatives when combined with active intransitives and transitives.

- | | |
|--------------------------|---|
| (14) Intransitives | Causative transitives |
| <i>onmag</i> 'be salty' | <i>onama-d(i)</i> 'salt' |
| <i>doa</i> 'be cured' | <i>doa-li, doa-r < doa-di</i> 'cure' |
| <i>tuuk</i> 'be dark' | <i>tuk-id</i> 'darken' |
| <i>tipilik</i> 'be flat' | <i>tipilik-id</i> 'flatten' |
| <i>toahk</i> 'be white' | <i>toah-id</i> 'whiten' |
| <i>i'ov</i> 'be sweet' | <i>i'ov-id</i> 'sweeten' |
| <i>tig</i> 'be named' | <i>tig-di</i> 'name' |
| <i>bid</i> 'turn around' | <i>bib-id/bib-di</i> 'flip' |
| <i>hoin</i> 'rock' | <i>hoin-id</i> 'rock' |
| <i>tuk</i> 'remember' | <i>tuk-id</i> 'recall' |

These data clearly illustrate a causative-applicative syncretism, in which the same verbal suffixation corresponds to applicativization if the base verb is a transitive verb or an active intransitive verb implying no change of state, and to causativization if the base verb is a stative/inchoative intransitive.

3.2 Northern Tepehuan

The same type of transitivizing suffix is present in NT, as the suffix $-d^{(y)}a/-d^{(y)}i$ (Bascom 1982: 359–360, 2003: 83–90). Again, attached to stative and inchoative intransitives, it derives causative transitives (15), and applicative transitives (16) when attached to active intransitives.

- | | | |
|------|---------------------------|--------------------------------|
| (15) | Intransitives | Causative transitives |
| | <i>dapáka</i> ‘be smooth’ | <i>dapáka-da</i> ‘make smooth’ |
| | <i>totópikii</i> ‘boil’ | <i>totópish-d’a</i> ‘boil’ |
| | <i>mimíjii</i> ‘burn’ | <i>mimí-di</i> ‘burn’ |
| | <i>úkaí</i> ‘warm’ | <i>úka-da</i> ‘warm’ |

- | | | |
|------|---------------------------|------------------------------|
| (16) | Intransitives | Applicative transitives |
| | <i>didívia</i> ‘come’ | <i>didívi-di</i> ‘visit’ |
| | <i>ninínai</i> ‘see’ | <i>niní-di</i> ‘look at’ |
| | <i>axiógai</i> ‘smile’ | <i>axiógi-di</i> ‘smile at’ |
| | <i>ásii</i> ‘laugh’ | <i>axí-di</i> ‘laugh at’ |
| | <i>aatágai</i> ‘converse’ | <i>aatági-d’a</i> ‘converse’ |

Both uses as causativizer and applicativizer are exemplified with their base constructions in (17) and (18), respectively. If the base construction is an inchoative intransitive, the derived transitive construction includes a new subject participant (a causer) as in (17), while it includes a new object participant if the base construction is an active intransitive, as in (18).

- (17) a. *mi~míji-i* *go-váso-i*
 RDP~burn-IPFV DET-grass-ABS
 ‘The grass is burning.’
- b. *mi~míi-di* *igai go-váso-i*
 RDP~burn-CAUS DEM DET-grass-ABS
 ‘He is burning the grass.’
 (Bascom 2003: 87)

- (18) a. *axióga-i*
smile-IPFV
'He/she smiles.'
- b. *axiógi-**di***
smile-APPL
'He/she smiles at him/her.'
(Bascom 2003: 84)

The applicative transitive verbs resulting from the *-di* suffixation take as their applied object a human participant interpretable not always as a recipient, but also, for instance, as a stimulus.

With transitive base verbs, this suffix functions as an applicativizer, and the new object participant can be a human recipient or a human beneficiary, depending on the meaning of the transitive base verb.

- (19) a. *áága-i*
tell-IPFV
'He/she tells it.'
- b. *áági-**di***
tell-APPL
'He/she tells it to him/her.'
(Bascom 2003: 86)
- (20) a. *bái búkai go-doad^yi-ga-mi*
this_way bring ET-cure-ADJR-NMLZ
'Bring the medicine here!'
- b. *bái im-bii-**d^ya** go-so~sóna-karoi*
this_way me-bring-APPL DET-RDP~tap-INS
'Bring me the hammer!'
(Bascom 1982: 294)

- (21) a. *ga-isa-i aáni úúnu-i*
PART-plant-IPFV I corn-ABS
'I am planting corn.'
- b. *ga-ixíi-**di** aáni úúnu-i*
PART-plant-APPL I corn-ABS
'I planted corn for him/her.'
(Bascom 2003: 87)

As can be observed in (19b) and (21b), the applied object can be left unexpressed in the applicative construction. In (19b), both objects (the original object and the applied object) are omitted and the only indication of the presence of a human recipient in the

situation denoted by the verb is the applicative suffix *-di*. The omission of the applied object can also be observed in (18b).

Interestingly, the *-di* suffixation illustrated in the previous examples seems to always be associated with morphophonological modifications in the base verb stem implying the change of the final stem vowel to *i*.⁶

Besides the possible benefactive meaning conveyed by the suffix *-d^(y)a/-d^(y)i* with transitive verbs (exemplified in [21b]), NT also has a dedicated construction for benefactive applicatives in which the transitivizing suffix is combined with the suffix *-tul(i)*. Example (22a) shows the benefactive participant encoded as the pronominal object of the benefactive postposition *vītari* ‘for’. In the derived construction (22b), this same participant has been promoted to a pronominal object prefixed to the applicativized verb.

- (22) a. *saví-da-ñi aápi go-vasááraga-i aáni iñ-viitári.*
 buy-TR-IMP you DET-shirt-ABS you me-for
 ‘Buy this shirt for me.’
 b. *giñ-savíl-tul-da-ñi aápi go-vasááraga-i.*
 me-buy-BEN-TR-IMP you DET-shirt-ABS
 ‘Buy me this shirt.’
 (Bascom 2003: 88)

This benefactive applicative suffix is always combined with the transitivizing suffix *-d^(y)a/-d^(y)i*,⁷ except in the truncated perfective form in which it appears as *-tuli*, as shown in (23).

- (23) a. *iñ-savíl-tul-da=ñi!*
 me-buy-BEN-TR=IMP
 ‘Buy it for me!’
 b. *iñ-savíl-tul-di.*
 me-buy-BEN-TR
 ‘He/she is buying it for me.’
 c. *iñ-savíl-tuli.*
 me-buy-BEN
 ‘He/she bought it for me.’
 (Bascom 2003: 69)

⁶ Interestingly, the forms of the applicative suffixes in historical varieties of Tepiman languages include the change of the final stem vowel to *i*: *-(i)d/-(i)t* for Tepecano (Mason 1917), *-(i)da* for Nevome or Lower Pima (Smith 1862, cited in Mason 1917: 365), *-(i)de*, *-(i)di* for NT (Rinaldini 1743, cited in Mason 1917: 365).

⁷ As shown in (23) and following the rule for verb class III in NT (see § 2), the form *-d^(y)a* is used in the imperative, *-d^(y)i* in the imperfective, and *-tuli* in the perfective (Bascom 2003: 68). This distribution is not so systematic when the transitivizing suffix *d^(y)a/-d^(y)i* is used without the benefactive suffix.

Unlike the suffix *-di/-id* in PB, whose benefactive meaning seems to be exclusive to transitive verb bases (Estrada 2007: 91), the benefactive suffix can also be attached in NT to active intransitive verbs with the same benefactive meaning. An example is given in (24).

- (24) *i-ñiíóoki-tul-dʷa-ñi áapi!*
 me-speak-BEN-TR-IMP you
 You, speak for me!
 (Ramos 2010: 141)

This example shows the use of two applicative markers for rendering the benefactive meaning. The differences in the implication of a human participant associated with the suffixes *-dʷa/-dʷi* and *-tul(i)* can be seen with this verb *ñiíókai* ‘speak’, as shown in (25). The *-dʷi* suffixation to this intransitive base verb implies the presence of a human recipient as object and the addition of the benefactive suffix *-tul* implies the presence of a human beneficiary.

- (25) *ñiokai* ‘speak.INTR’
ñiíóoki-dʷi ‘speak to someone’
ñiíóoki-tul-dʷi ‘speak for someone’
 (Carrillo 2013: 64)

3.3 Yaqui

In YQ, it is the suffix *-ria* that conveys the benefactive applicative function, as exemplified in (26).

- (26) a. *Aurelia-Ø u-ka wakabak-ta joa-k Goyo-ta-betchi'ibo.*
 Aurelia-NOM DET-ACC wakabaki-ACC make-PFV Goyo-ACC-for
 ‘Aurelia cooked wakabaki for Goyo.’
 b. *Aurelia-Ø Goyo-ta u-ka wakabak-ta joa-ria-k.*
 Aurelia-NOM Goyo-ACC DET-ACC wakabaki-ACC make-APPL-PFV
 ‘Aurelia cooked wakabaki for Goyo.’
 (Guerrero 2007: 182–183)

This benefactive applicative suffix is very productive. It is usually attached to transitive base verbs, but active intransitive verbs like *ye'e* ‘dance’ can also receive this marking in order to promote a human beneficiary to object position.

- (27) *María-Ø Goyo-ta yi'i-ria-k.*
 María-NOM Goyo-ACC dance-APPL-PFV
 ‘María danced for Goyo’.

In some cases, the applied object introduced by the suffix *-ria* is a human participant that cannot really be interpreted as a beneficiary. This is the case for instance with the stative intransitive verb *alle'a* 'be happy', in which the applied object seems to be more an object of empathy.

- (28) a. *María-Ø alle'a-Ø.*
 María-NOM be_happy-PRS
 'María is happy.'
 (Estrada et al. 2004)
- b. *María-Ø Kajlo-ta alle'a-ria-Ø.*
 María-NOM Carlos-ACC be_happy-APPL-PRS
 'María is happy for Carlos.'
 (Guerrero 2007: 187)

Another case is represented by the intransitive base verb *gojana* 'run away', in which the applied object corresponds more to a human source than to a beneficiary.

- (29) a. *Mario gojana.*
 Mario run_away
 'Mario runs away.'
 (Estrada et al. 2004: 31)
- b. *U ili uusi mala-wa gojan-ria.*
 DET little boy mother-POSS run_away-APPL
 'The child runs away from his mother.'
 (Estrada et al. 2004: 31)

This possibility to have a non-benefactive applicative is also found with the verb *etejo* 'tell, talk', in which the suffix *-ria* is used to promote to object position a human participant that can be encoded as a comitative (Example [30a]) or a directional (Example [30b]) complement in the base construction. In this case, as can be observed in (30c), in addition to the human participant marked as accusative, the derived applicative construction also licenses the presence of the topic of conversation as object (here the nominalization *káa túa á'a alléa'u* 'his not truly happiness'), something that is not possible in the base construction.

- (30) a. *in jala'i-mak né etéjo.*
 my friend-with I talk
 'I am talking with my friend.'
 (Dedrick and Casad 1999: 190)

- b. *emo-u ne etejo-bae.*
 you.PL-DIR I tell-DES
 'I want to tell you.'
 (Estrada et al. 2004)
- c. *káa túa á'a alléa-'u née etejó-ria-k.*
 NEG truly his be_happy-OBJ.NMLZ me tell-APPL-PFV
 'He told me he was a bit sad.'
 (Lit. 'He told me his not truly happiness.'
 (Dedrick and Casad 1999: 374)

In the case of the transitive verb *be'a* 'set aside' in (31), the human participant who is benefited by the action is encoded as the object of the directional postposition (31a), while its applicative derivate licenses the beneficiary as an accusative object (31b).

- (31) a. *Peo bwa'am-ta ne-u be'a-k be'eri-ta.*
 Peter food-ACC 1SG.NOM-DIR set_aside-PFV leftover-ACC
 'Peter left me the leftover food.'
- b. *Joana-ta ne paan-im be'e-ria-k.*
 Joana-ACC 1SG.NOM bread-PL set_aside-APPL-PFV
 'I left bread for Juana.'
 (Estrada et al. 2004)

The examples in (32) can be used to illustrate the applicativization of trivalent verbs, i.e. verbs that require three semantic participants, regardless of whether these participants are encoded as A, R and T according to the prototype verb GIVE in the language. Like the verb *be'a* 'set aside', the verbs *nenka* 'sell' in (32) and *teuwa* 'tell' in (33) require the suffix *-ria* in order to promote the human recipient encoded as a directional oblique in the base construction, to the object position in which it receives the accusative marking, without the postposition.

- (32) a. *bempo kowi-ta u-e jamut-ta-u nenki-ne.*
 3PL.NOM pig-ACC DET-OBL woman-ACC-DIR sell-POT
 'They will sell the pig to the woman.'
- b. *bempo kowi-ta u-ka jamut-ta nenka-ria-ne.*
 3PL.NOM pig-ACC DET-ACC woman-ACC sell-APPL-POT
 'They will sell the pig (to) the woman.'
 (Guerrero 2022: 33)
- (33) a. *Maria-Ø Luisa-ta-u lutu'uria-ta teuwa-k.*
 Mary-NOM Luisa-ACC-DIR truth-ACC tell-PFV
 'Mary told the truth to Luisa.'

- b. *Maria-Ø Luisa-ta lutu'uria-ta teuwa-ria-k.*
 Mary-NOM Luisa-ACC truth-ACC tell-APPL-PFV
 'Mary told the truth (to) Luisa.'
 (Guerrero 2022: 33)

With the verb *mabeta* 'receive', it is the human source that is promoted to object in the applicative construction.

- (34) a. *inepo u-ka bwa'am-ta mabeta-k kobanao-ta-betana.*
 1SG.NOM DET-ACC food-ACC receive-PFV governor-ACC-from
 'I received the food from the governor.'
 b. *u-Ø kobanao-Ø tomi-ta kaa ne mabeti-ria-k.*
 DET-NOM governor-NOM money-ACC NEG 1SG.ACC receive-APPL-PFV
 'The governor didn't receive the money (from) me.'
 (Guerrero 2022: 34)

With the verb *benta* 'smear, spread', it is the human locus that is promoted to object in the applicative construction.

- (35) a. *Inepo techoa-ta e-t benta-k pujba-chi.*
 1SG.NOM mud-ACC 2SG.OBL-LOC smear-PFV face-LOC
 'I smeared mud on your face.'
 b. *Inepo enchi techoa-ta benta-ria-k pujba-chi.*
 1SG.NOM 2SG.ACC mud-ACC smear-APPL-PFV face-LOC
 'I smeared you mud on your face.'
 (Álvarez's fieldnotes)

Interestingly, with this same verb, when the locus of spreading is inanimate, the applicative suffix serves to introduce a human beneficiary.

- (36) a. *Goyo-Ø pann-im-met mantekia-ta benta-k.*
 Goyo-NOM bread-PL-PL.LOC butter-ACC spread-PFV
 'Goyo spread butter on the bread.'
 b. *Goyo-Ø Iban-ta pann-im-met mantekia-ta benta-ria-k.*
 Goyo-NOM Ivan-ACC bread-PL-PL.LOC butter-ACC spread-APPL-PFV
 'Goyo spread butter on the bread for Ivan.'
 (Guerrero 2007: 191)

As can be observed in all these examples of applicativization of trivalent verbs, the resulting applicative construction is a double object construction. A three-object construction is also possible with the verb *u'ura* 'take from someone', in which the applicativization adds a beneficiary to the situation denoted by the base verb.

- (37) a. *Carmen-Ø Lupe-ta tomi-ta u'ura-k.*
 Carmen-NOM Lupe-ACC money-ACC take-PFV
 'Carmen took the money (from) Lupe.'
- b. *Carmen-Ø Joana-ta Lupe-ta tomi-ta u'ura-ria-k.*
 Carmen-NOM Juana-ACC Lupe-ACC money-ACC take-APPL-PFV
 'Carmen took the money (for) Juana (from) Lupe.'
 (Guerrero 2022: 33)

This verb *u'ura* can be considered a ditransitive verb in YQ, since it licenses the same double object construction as the prototypical verb of transfer *miika* 'give'. Note that this verb *miika* does not admit the applicative suffix, since the base construction already contains a human participant acting as recipient/beneficiary and encoded as an accusative object.

- (38) a. *Joana-Ø Lupe-ta soto'i-ta miika-k.*
 Juana-NOM Lupe-ACC pot-ACC give-PFV
 'Juana gave Lupe the pot.'
- b. **Joana-Ø Maria-ta soto'i-ta Lupe-ta miik-ria-k.*
 Juana-NOM Mary-ACC pot-ACC Lupe-ACC give-APPL-PFV
 Intended: 'Juana gave Lupe the pot for Mary.'
 (Guerrero 2022: 33)

Additionally, YQ has three verbs that seem to illustrate the grammaticalization of an old verb *iyaa* 'to pretend, to wish' into an applicative marker. This verb is no longer used nowadays in YQ as a lexical verb, but it has been documented for Tehueco, a Cahitan variety from the beginning of the XVII century (Buelna 1890: 39). The use of this verb in Tehueco is exemplified in (39). Interestingly, like in its applicative use, these examples show a use of the form *iyaa* in which it does not head its own clause, but it is already involved in a two-verb construction (39a) or in a converbal construction (39b).

- (39) a. *emchi ne sim-yia.*
 2SG.ACC 1SG.NOM go-pretend
 'I intend for you to leave.'
 (Buelna 1890: 39)
- b. *emchi ne ieuatua emchi netz eria iyaa-cari.*
 2SG.ACC 1SG.NOM correct 2SG.ACC 1SG.ACC love pretend-GER
 'I correct you to love me.'
 (Lit. 'I correct you, pretending that you love me.')
 (Buelna 1890: 74)

Two mental intransitive verbs in YQ seem to show the presence of this old verb in order to obtain their transitive counterparts. The first case is represented by the intransitive

verb *'ea* 'to think, to wish' and its transitive related form *'eiyaa*, which can both be used to express the notion of trust in someone. While the source of trust is encoded as a locative oblique with *'ea*, it receives the object marking with *'eiyaa*, as shown in (40).

- (40) a. *Hóan-ta-t ne yoem-'ea-n.*
 John-ACC-on I person-think-PCN
 'I had been trusting in John.'
 b. *Lióh-ta ne yoem-'eiyaa.*
 God-ACC I person-think
 'I am trusting God.'
 (Dedrick and Casad 1999: 368)

In other uses of *'eiyaa*, the introduction of a human stimulus as an object is accompanied by a less predictable meaning change, as in its use with the meaning 'to judge, to think highly of, to esteem' exemplified in (41b).

- (41) a. *née hunen 'ea.*
 I thus wish
 'That is how I think.'
 b. *tu'isi n=a'a 'eiyaa.*
 much I=him esteem
 I esteem him very much.
 (Dedrick and Casad 1999: 263)

Morphologically similar is the pair *hu'unea* 'to know, to know about X' with its transitive counterpart *hu'uneiyaa* 'to know X' given in (42).

- (42) a. *kan=nee hu'unea-k.*
 not=I know.INTR-PFV
 'I didn't know.'
 (Dedrick and Casad 1999: 282)
 b. *haibu=ne 'ae-t hu'unea.*
 now=I it-on know.INTR
 I already know about it.'
 (Dedrick and Casad 1999: 368)
 c. *nehpo ket hunuen 'a'a hú'uneiyaa.*
 I also thus it know.TR
 'I also know it that way.'
 (Dedrick and Casad 1999: 338)

The third case involves the motion verb *weye* ‘to go’ and its transitive counterpart *weiyaa* ‘carry’. Here again an idiosyncratic change of meaning seems to be involved to some extent.

- (43) a. *Aapo a'abo weye.*
 3SG.NOM here go
 ‘He is coming here.’
 b. *U jamut ba'am soto'o-po weiyaa.*
 DET woman water pot-LOC carry
 ‘The woman is carrying water in the pot.’
 (Lit. ‘The woman is intending for the water to come in the pot.’)
 (Estrada et al. 2004)

No other cases of *iyaa* applicative verbs have been identified. These few cases could perhaps be analyzed as the vestiges of an applicative periphrasis, that is a biverbal construction comparable to a monoverbal applicative. In this biverbal applicative construction, one of the verbs (the lexical verb) determines the type of event encoded by the applicative periphrasis, while the other verb (in our case, *iyaa*) acts as a valency increasing marker that licenses the expression as object of an additional participant in the event encoded by the lexical verb, without modifying the morphosyntactic treatment of the other participants (Creissels, forthcoming).

However, the form *iyaa* does not correspond currently to a lexical verb, it is only found attached to a few verbs, acting synchronically as an idiosyncratic unproductive applicative suffix. Therefore, these transitive verb forms could only be cases of applicative periphrases from a diachronic point of view. These cases also show that the original meaning of *iyaa* has been lost, with the possible presence of some idiosyncratic semantic change.

3.4 Tarahumara and Guarijío

The situation in the two closely related TA and GU is more complex, since in these two languages several suffixes can be used for adding a new participant encoded as an object to the situation denoted by the base construction, and applicative suffixation can also be combined with vowel alternation and stress shift.

In TA and GU, different markers can be suffixed to the base verb for introducing in the situation denoted by the base verb, a new participant encoded as an object. According to sources, these markers are: the suffixes *-e*, *-ri/-ti/-ki/-gi*, *-ši*, *-ne*, *-i*, *-mi*, *-tze/-che* in Norogachi TA (Brambila 1953, 1976), the suffixes *-i*, *-ni*, *-chi*, *-wi*, *-ki* in Choguita TA (Caballero 2008), and the suffixes *-é/-ie*, *-ke/-ge/-kie/-gie*, *-ne/-nie/-ini*, *-che*, *-tze* in Mountain GU (Miller 1996: 160–163).

The first applicative suffixes to be discussed are three unproductive transitivity suffixes ending in *e*, which correspond to the applicative alternants of transitivity suffixes ending in *a*. In Norogachi TA, Brambila (1953: 193) identified three different suffixes (*-na*, *-tza*, *-wa*) that can be combined with a few intransitive base verbs in order to obtain the corresponding causative transitive verbs:

- | | | |
|------|--------------------------|-----------------------------|
| (44) | Intransitives | Causative transitives |
| a. | <i>ko</i> 'eat' | <i>kó-na</i> 'make eat' |
| | <i>go'so</i> 'choke' | <i>go'so-na</i> 'choke' |
| | <i>baji</i> 'drink' | <i>baji-na</i> 'make drink' |
| | <i>buwe</i> 'wait' | <i>buwe-na</i> 'make wait' |
| b. | <i>guri</i> 'turn' | <i>guri-tza</i> 'spin' |
| | <i>weka</i> 'get wrong' | <i>weka-tza</i> 'mislead' |
| | <i>rishi</i> 'get tired' | <i>reshe-tza</i> 'tire' |
| c. | <i>nayu</i> 'get sick' | <i>nayú-wa</i> 'make sick' |
| | <i>muku</i> 'die' | <i>muku-wa</i> 'make die' |

A few intransitive verbs can take the three unproductive suffixes *-ne*, *-tze*, *-we* for applicativization. As shown in (45), (46) and (47), the base verb is an active intransitive verb and the applied object is a human participant that can be acting as a recipient, a stimulus or a beneficiary.

- (45) a. *we nawaji-re rarámuri baji-sa.*
 a_lot sing-PFV tarahumara drink-GER
 'The Tarahumaras drank and sang a lot.'
 (Lit. 'The Tarahumaras sang a lot, drinking.')
- (Brambila 1976: 370)
- b. *má nawa-re tata pari picharo, má*
 already arrive-PFV father father Pichardo already
nawaji-ne-a kuchi.
 sing-APPL-ANT girl
 'Father Pichardo has arrived, and the girls are already singing to/for him.'
- (Brambila 1953: 183)
- (46) a. *ne che'reba-re nara-ga.*
 I wake_up-PFV crying-GER
 'I woke up crying.'
- (Brambila 1976: 360)
- b. *nawika ta nara-tze-bo ke oneruame.*
 together only cry-APPL-IMP.1PL EXPL God
 'Together let us cry to God.'
- (Brambila 1976: 361)

- (47) a. *ketza mu maja-re bowi-chi?*
 INTER.NEG you be_afraid-PFV road-LOC
 'Weren't you afraid on the road?'
 (Brambila 1976: 295)
- b. *ké ne tasi Martin maja-we.*
 NEG I NEG Martin be_afraid-APPL
 'I am not afraid of Martin.'
 (Brambila 1976: 293)

In Choguita TA, the corresponding suffixes are *-ni*, *-chi*, *-wi*, since unstressed *e* changes to *i* in pre-tonic and post-tonic syllables in this variety (Caballero 2008: 55).

In GU, the suffixes *-na*, *-cha*, *-wa* are also used as causative markers with a few intransitive base verbs, but only the suffixes *-ne* and *-che* are found for applicativization (Miller 1996; Ávila 2012; Casas 2018). As shown in (48), (49) and (50), the base verb can also be transitive in GU. Attached to the verb of speaking *ihta* 'to ask for' or to the verb of movement *mahtó* 'to bring', these suffixes license the presence of a human recipient as an object argument.

- (48) a. *ihta-má.*
 ask-FUT
 'He will ask for it.'
 (Medina 2002:174)
- b. *maría no'ó ihta-né-na takári.*
 María 1SG.NSBJ ask-APPL-PRS tortillas
 'María asks me for tortillas'.
 (Ávila 2012: 139)
- (49) a. *puu-á mahtó-ré kuhú.*
 3SG.S-EMPH bring-PFV firewood
 'She brought firewood.'
- b. *puu-á ahpo ye'yé mahtó-ne-ré kuhú.*
 3SG.SBJ-EMPH 3SG.NSBJ mother bring-APPL-PFV firewood
 'She brought firewood to her mother.'
 (Ávila 2012: 137)
- (50) *muú tamó muké-če-mapo naaráso.*
 2SG.SBJ 1PL.NSBJ load-APPL-FUT orange
 'You are going to load us with oranges.'
 (Ávila 2012: 140)

The applicative suffix can be reduced to *-e* (with the possibility to have an epenthetic *y* or *w*). In Examples (51), (52) and (53) presented below, the base verb is an active intransitive or a transitive verb, and the applied object is a recipient or a beneficiary.

(51) Choguita TA

ru-é, ru-yé, ru-wé ‘tell-APPL’
bu-é, bu-yé, bu-wé ‘wait-APPL’
 (Caballero 2008: 78)

(52) Norogachi TA

a. *jipe nepa-re erasmo*
 today call-PFV Erasmo
 ‘Erasmo called today.’
 (Brambila 1976: 376)

b. *ké ne ka nepá-e-re*
 NEG 1SG.NOM NEG call-APPL-PFV
 ‘I did not call him.’
 (Brambila 1976: 376)

(53) GU

ča’pi ‘grab something’ *ča’pi-e* ‘grab for someone’
wi’ko ‘whistle’ *wiko-é* ‘whistle at someone’
 (Medina 2002)

Although the benefactive meaning can be expressed in some cases by these different suffixes, the most productive benefactive suffixes are, in fact, suffixes *-ke* in GU, *-ki* in Choguita TA, and *-i* in Norogachi TA. These productive benefactive applicative suffixes are exemplified in (54), (55) and (56), respectively.

(54) GU

a. *hustína pasu-ré muní no’ó ičió.*
 Agustina cook-PFV beans 1SG.NSBJ BEN
 ‘Agustina cooked beans for me.’

b. *hustína no’ó pasú-ke-re muní.*
 Agustina 1SG.NSBJ cook-BEN-PFV beans
 ‘Agustina cooked beans for me.’
 (Félix 2007: 115)

(55) Choguita TA

a. *ma=n rata-bá-či-ki ko’wá-ami.*
 already=1SG.NOM heat-INCH-TR-PT:1 eat-PTCP
 ‘I already heated up the food.’

- b. *ne mi ba'wí rata-bá-č-ki-ra?*
 1SG.NOM 2SG.ACC water heat-INCH-TR-**APPL**-POT
 'Shall I heat the water for you?'
 (Caballero 2008: 417)

(56) Norogachi TA

- a. *mi ne mi'ri-mea ena ata wi-gá*
 2SG.ACC 1SG.NOM kill-FUT this bow take-GER
 'I take this bow and I kill you.'
 (Lit. I will kill you, taking this bow.)
 (Brambila 1976: 320)
- b. *owétza-ka ne ka bayé-nura.*
 healer-EXPL 1SG.NOM EMPH call-send
 'I've already sent for the healer.'
Píri be mu mi'rí-i-ma?
 what and 2SG.NOM kill-APPL-FUT
 —And what are you going to kill for him?'
 (Brambila 1953: 184)

Examples in (56) and (57) show how morphophonology can be involved in applicativization in Norogachi TA, with the case of the benefactive suffix *-i* that triggers the change of the final verb stem vowel to stressed *i*. Additionally, the verbs listed in (57) indicate that, although transitive base verbs are more frequent, some intransitive base verbs are also possible (such as *ripi* 'be left, remain' and *nawa* 'arrive').

(57) Applicative verbs marked by the suffix *-i*:

- | | |
|-------------------------------|-------------------------------------|
| <i>ripi</i> 'be left, remain' | <i>ripi-i</i> 'be left for someone' |
| <i>mi'ri</i> 'kill' | <i>mi'ri-i</i> 'kill for someone' |
| <i>newa</i> 'do' | <i>newi-i</i> 'do for someone' |
| <i>nawa</i> 'arrive' | <i>nawi-i</i> 'arrive for someone' |
| <i>ora</i> 'do' | <i>ori-i</i> 'do for someone' |
| <i>cha'pi</i> 'catch' | <i>cha'pi-i</i> 'catch for someone' |
| <i>acha</i> 'put' | <i>achi-i</i> 'put for someone' |
- (Brambila 1953: 184)

With some verbs belonging to class IIb (see § 2) and allowing two different types of human participant as object, applicative suffixation is accompanied by vowel alternation and stress shift in TA. As shown in (58) and (59), the verbal stems ending in a stressed front vowel *é* (probably resulting from the fusion of the applicative suffix *-é* to the verb base) are used for introducing the human source or recipient, while the stem ending in a stressed high front vowel *í* is combined with *-i* suffixation in order to introduce a human beneficiary.

- (58) a. *rari-* ‘buy something’ (stem form with stress shifting suffixes)
 b. *rará-* ‘buy something’ (stem form with stress neutral suffixes)
 c. *raré-* ‘buy from someone’
 d. *rarí-i* ‘buy for someone’
 (Caballero 2008: 106–107)
- (59) a. *osi-* ‘write something’ (stem form with stress shifting suffixes)
 b. *osá-* ‘write something’ (stem form with stress neutral suffixes)
 c. *osé-* ‘write to someone’
 d. *osí-i-* ‘write for someone’
 (Brambila 1953: 182–184)

The use of a final vowel stem alternation from *a/i* to *e* for encoding the undirected/directed alternation is, in fact, frequent in TA and GU. Brambila (1953: 177–179) indicates that the *-e* suffixation usually implies in Norogachi TA the loss of the final vowel of the undirected verb stem (for instance, final *i* is usually replaced by *e*), thus resulting in a final vowel stem alternation in which the verb stem ending in *e* is the directed stem. In Choguita TA, Caballero (2008) identifies the possibility to have two different types of “applicative stems”:⁸ the directed stem ending in *é* as in (58c) and (59c), and the directed stem ending in *í*, which is usually followed by an applicative suffix as in (58d) and (59d). In GU, Miller (1996: 160) also mentions that the suffix *-é* can, in some cases, replace the final vowel of the verbal stem. This situation thus implies that, strictly speaking, we can consider that we no longer have an undirected/directed alternation marked by a privative marking as in applicativization, but we have an equipollent marking,⁹ in which the directed stem is obtained by changing the final vowel of the undirected stem to *e*.

Like the applicative suffixes, the final stem vowel alternation from *a/i* to *e* is used in TA for introducing a non-patient participant, usually human, as a syntactic object. This strategy is available not only for some intransitive verbs but also for some transitive verbs, as exemplified in (60), (61) and (62) from Norogachi TA, and (63) from Choguita TA.

- (60) a. *notza-riwa echi.*
 work.INTR-PASS there
 ‘There is working over there.’
 (Brambila 1976: 391)

⁸ “Applicative stem” is the term used by Caballero (2008). As the applicative construction by definition implies the presence of an affix (the applicative morpheme attached to the undirected verb form), we prefer to use the term “directed stem”.

⁹ The equipollent marking for the undirected/directed alternation is considered a typological rarity by Creissels (forthcoming).

- b. *antresi ne notze.*
 Andres 1SG.NOM work.TR
 'I work for Andres.'
 (Brambila 1976: 392)
- (61) a. *echi bera ne gite achi-é.*
 that for 1SG.NOM for laugh.INTR-PST.IPFV
 'That's why I was laughing.'
 (Brambila 1976: 4)
- b. *nejé nimí aché.*
 1SG.NOM 2SG.ACC laugh.TR
 'I am laughing at you'
 (Brambila 1976: 4)
- (62) a. *kumí a'tará echi?*
 where use_to_buy.TR DEM
 'Where do you usually buy these things?'
 (Brambila 1976: 35)
- b. *Pe róbrika a'ataré ne sunú pa.*
 still Rodrigo use_to_buy.TR I corn EXPL
 'I still use to buy corn from Rodrigo.'
 (Brambila 1976: 35)
- (63) a. *naparí noká-ri ronochí=ni okó.*
 when move.INTR-PST legs=1SG.NOM hurt
 'When I moved, my legs hurt.'
- b. *noké-ri ré=n má-o.*
 move.TR-PST DUB=1SG.NOM maybe-EMPH
 'Maybe I moved him.'
 (Caballero 2008: 166)
- c. *nihé mi troka noké-ri.*
 1SG.NOM 2SG.ACC truck move.TR-PST
 'I will move the truck for you.'
 (Caballero 2008: 107)

As shown in these examples, the new object of the directed construction marked by the *é* verbal stem is a human participant referring to a diversity of semantic roles, such as a recipient, a beneficiary, a stimulus, a source or even a theme, as in (63b). The examples in (63) from Choguita TA are interesting, since they show that the verb form ending in *é* can be used as a causal transitive (63b) or as a directed ditransitive (63c) verb, but, in both cases, we can notice the presence of a human participant as an object (as P in [63b], as R in [63c]).

Interestingly, these equipollent verbs have the same distributional pattern as in the applicative/causative uses of transitivity suffixes in PB and NT (see §§ 3.1 and 3.2): Final stem *a/i* to *e* alternation in TA serves to encode the undirected/directed alternation, if the *a/i* counterpart is a transitive verb (as in [62]) or an active intransitive verb (as in [60]), and it serves to encode the non-causal/causal alternation, if the *a/i* counterpart is inchoative intransitive as in (64).

(64) Intransitives ending in <i>i</i>	Causal transitives ending in <i>e</i>
<i>raji</i> ‘burn’	<i>raje</i> ‘light (a fire)’ CAUSE to burn
<i>noki</i> ‘move’	<i>noke</i> ‘move’ CAUSE to move
<i>sa’wi</i> ‘heal’	<i>sa’we</i> ‘heal’ CAUSE to heal
<i>lowi</i> ‘go crazy’	<i>lowe</i> ‘drive crazy’ CAUSE to go crazy
<i>waki</i> ‘dry’	<i>wake</i> ‘dry’ CAUSE to dry
<i>wasi</i> ‘cook’	<i>wase</i> ‘cook’ CAUSE to cook

The same is found in GU, although the alternation is almost always from *a* to *e*, since most intransitive and transitive verbs tend to end in *a* in this language. Examples in (65) show the use of *a* to *e* alternation for non-causal/causal alternation with both inchoative and stative intransitives. In these cases, the change of the final vowel to *e* serves to create a transitive verb in which the object corresponds to the subject, usually animate (mostly human), of the *a* verb form.

(65) Intransitives ending in <i>a</i>	Causal transitives ending in <i>e</i>
<i>i’óa-</i> ‘cure’	<i>i’óe-</i> ‘cure’
<i>kema-/kemi-</i> ‘tuck in’	<i>kemé-</i> ‘tuck’
<i>taha-/tahi-</i> ‘burn’	<i>tahé-</i> ‘burn’
<i>upá-</i> ‘bathe’	<i>upé-</i> ‘bathe’
<i>yeloába-</i> ‘be poisoned’	<i>yeloé-</i> ‘poison’
<i>pi’wá-</i> ‘be cleaned’	<i>pi’wé-</i> ‘clean someone’

Verb pairs in (66) exemplify in GU the *a* to *e* alternation changing active intransitive verbs to directed transitive verbs. In these cases, the object of the final *e* stem has been added in comparison with the clause in which the predicative nucleus is the active intransitive verb. Again, we can observe that the additional object is a human participant, usually acting as a recipient.

(66) Intransitives ending in <i>a</i>	Directed transitives ending in <i>e</i>
<i>tepóra-</i> ‘greet’	<i>tepóre-</i> ‘greet’
<i>wikóa-</i> ‘whistle’	<i>wikoé-</i> ‘whistle at’
<i>naósa-</i> ‘talk’	<i>naóse-</i> ‘talk to’
<i>pahkóra-</i> ‘keep vigil’	<i>pahkóre-</i> ‘keep vigil over’

With transitive verbs, the final vowel change to *e* is used for the undirected/directed alternation, and the animate (mostly human) participant added as object in the final *e* verb form can be a beneficiary/maleficiary but also a recipient or a source, as can be seen in (67).

(67) Transitives	Directed transitives ending in <i>e</i>
<i>olá</i> - ‘do something’	<i>oríe</i> - ‘do something for someone’
<i>werá</i> -. ‘put something on stand’	<i>weré</i> - ‘put for someone’
<i>tainía</i> - ‘sell something’	<i>tainié</i> - ‘sell something to someone’
<i>puha</i> -/ <i>puhi</i> - ‘remove something’	<i>puhé</i> - ‘remove from someone’ (e.g. the load from an animal)
<i>nulá</i> - ‘ask something’	<i>nuré</i> - ‘ask to someone’
<i>u’i</i> - ‘bring something’	<i>u’é</i> - ‘bring to someone (SBJ.SG)’
<i>po’á</i> ‘take something away’	<i>po’é</i> ‘take away from someone’

That the additional object associated with the final *e* verb form is an animate (mostly human) participant, is obvious in (68), where two forms of the verb of believing are provided. In this case, the vowel alternation is not associated with transitivity, but with the (in)animacy of the object participant. Both verb forms are transitive, but, as can be observed in (68), the final *e* verb form is for a human object, and the final *a* verb form is for an inanimate object.

- (68) a. *pichiká*- ‘believe in something’
 b. *pichiké*- ‘believe in someone’

In this example, the *a/e* alternation does not cause a valency increase, it just changes the type of object participant involved in the situation, being the *e* verb form the one associated with human participant.

Regarding the optional or obligatory type of constructions encoded via final stem vowel alternation, there is a strong tendency for these constructions to be obligatory. However, some cases of optional constructions encoded via final stem vowel alternation are possible. This possibility is found in TA and GU, only when the additional object is a beneficiary. In this case, the verb stem ending in *a/i* can be used with the benefactive human participant marked with a benefactive postposition. This possibility to have an optional construction encoded via final stem vowel alternation is exemplified in (69) from Norogachi TA.

- (69) a. *pe tami gite newa pa gema-ka.*
 only us for make.TR PART.EXPL blanket-EXPL
 ‘He makes a blanket only for us.’
 (Brambila 1976: 547)

- b. *raberi ne newe-ke.*
 violin I make.APPL-PFV
 'I made a violin for him.'
 (Brambila 1976: 379)

Double suffixation is also found in TA for encoding applicative constructions. In Chogu-ita TA, the second suffix is always the benefactive *-ki*, while in Norogachi TA, this is the suffix *-ri*.¹⁰ According to Caballero (2008: 245–247), this double applicative that implies the loss of the final vowel of the first applicative suffix (*-n-ki*, *-w-ki*, *-š-ki*), is redundant in Chogu-ita TA, since there is no semantic change in comparison with the simple suffixation, as illustrated in (70).

- (70) a. *ne mi pakó-ni-ra plato.*
 1SG.NOM 2SG.ACC wash-APPL-POT plate
 'I'll wash the plates for you.'
 b. *ne mi pakó-n-ki-ra plato.*
 1SG.NOM 2SG.ACC wash-APPL-APPL-POT plate
 'I'll wash the plates for you.'
 (Caballero 2008: 247)

In Norogachi TA, according to Brambila (1953: 187), the double applicative is mainly used with transitive verbs in order to indicate the presence of both direct and indirect objects, without the necessity to overtly mark these two complements outside the verb as arguments. Recall that in TA, GU, PB, and NT, 3rd person direct and indirect object pronouns are usually dropped. Two examples of this use are given in (71). Interestingly, in this double applicativization, the first applicative suffix licenses as object an inanimate patient participant, and the second one, a human recipient/beneficiary participant.

- (71) *rikibu*- 'download' *natabu*- 'drill'
rikibú-ne 'download (it)' *natabú-ne* 'drill (it)'
rikibú-ne-ri 'download (it to someone)' *natabú-ne-ri* 'drill (it for someone)'

The double marking can also be the result of the combination of the directed verb stem ending in *é* and an applicative suffix (*-ki* in Chogu-ita TA, *-ri* in Norogachi TA), as exemplified in (72) from Chogu-ita TA.

¹⁰ Brambila (1953: 180) regards the forms *-ki*, *-gi*, *-ti*, *-ri* as allomorphs, since in Norogachi TA, /r/ can freely alternate with /k/, /g/, and /t/ in intervocalic contexts (Brambila 1953: 6). This allomorphy can cause some potential ambiguities between both causative and applicative meanings, since in this variety the suffix *-ri* is also a causative suffix.

- (72) a. *ma=ni mi suwé-ri remé.*
 already=1SG.NOM 2SG.ACC finish.up.APPL-PST tortillas
 'I already finished (ate) up your tortillas.'
- b. *ma=ni mi suwé-ki-ri remé.*
 already=1SG.NOM 2SG.ACC finish.up.APPL-APPL-PST tortillas
 'I already finished (ate) up your tortillas.'
- (Caballero 2008: 239)

Again, these cases of double marking always involve the productive benefactive suffix *-ki*, and they do not imply in Choguita TA a semantic difference in comparison with the simple marking. Caballero (2008) explains this situation by the morphological opacity caused by the fusion of the applicative marker *-é* to the verb base, which triggers the double marking.

In Norogachi TA (Brambila 1953: 187), the same combination is also possible, as shown in (73), with the same discursive function as the one mentioned for the double applicative suffixation (see Example [71]).

- (73) *achá-* 'put' *bujá-* 'take away'
aché- 'put (it)' *bujé-* 'take (it) away'
aché-ri 'put (it to someone)' *bujé-ri* 'take (it) away (from someone)'

Probably triggered by this double marking, Norogachi TA shows some cases in which the vowel alternation to *é* and the applicative suffixes *-e*, *-ne* are used to refer to an inanimate patient, as shown in (74), not to a human non-patient participant as usual, as well as some other cases in which the suffix *-ri*, the most productive causative marker in the language, is used alone as an applicative marker (75b).

- (74) *ro'á* 'pour something' *ro'é* 'pour (it)'
ku ro'á ba'wi-ki! *chokirá tsa ro'é-ma ne?*
 again pour water-EXPL near INTER pour-FUT 1SG.NOM
 'Pour the water again!—Do I pour (it) near (the cross)?'
- (Brambila 1953: 179)

- (75) a. *ne kobi-ka ariché-re ke rapako.*
 1SG.NOM make_pinole-GER spend_the_day-PFV EXPL yesterday
 'Yesterday I spent the day making pinole.'
- b. *ketza tamí kóbí-ri-ma pe tá?*
 not_true 1SG.ACC make_pinole-APPL-FUT NEG little
 'Won't you make me some pinole?'
- (Brambila 1976: 257)

In GU, double applicatives are infrequent but still possible. An example is given in (76) in which the two applicative suffixes are associated with the expected semantic values. The first applicative suffix is used to introduce an animate recipient, the second one is used to introduce a human beneficiary.

- (76) *čuh-* ‘be hung’
čuh-čá ‘hang something’
čuh-čé ‘hang something on an animal’
čuh-čé-nie ‘hang something on an animal for someone’
 (Medina 2002)

This example also serves to illustrate the allomorphy involved in the applicative suffixes in GU. Miller (1996: 160) identifies different allomorphs for the applicative suffixes (*-ne/-nie/-íni*; *-é/-ie*; *-ké/-ge*, *kie/-gie*), and this allomorphy seems to be lexically conditioned.

Miller (1996: 161) points out that, with some verb bases, two different applicative suffixes can be used with a semantic contrast: suffix *-ne/-nie* for benefactive, *-ke/-kie/-gie* for surrogate.¹¹ Some examples are presented in (77).

- (77) *četé-gie* play a musical instrument instead of another person
četé-nie play a musical instrument for another person
toe-ké run with the ball instead of another person
toe-né run with the ball for helping another person
yahčá-kie put the load (on a donkey) instead of another person
yahčá-nie put the load (on a donkey) for helping another person

Other minor and unproductive applicative suffixes used for applicativization in Norogachi TA are the suffix *-ši* exemplified in (78) (usually associated with a few motion verbs, also present in Choguita TA (79) and in GU as *-se*¹²), and the suffix *-mi*, exemplified in (80), which is only found with two verbs in Norogachi TA and with a benefactive meaning.

- (78) *e* ‘remove’ *é-ši* ‘remove from someone’
pa ‘throw’ *pá-ši* ‘throw to someone’
ropa ‘outperform (SG)’ *ropá-ši* ‘outperform someone’
toba ‘outperform (PL)’ *tobá-ši* ‘outperform someone’
wichi ‘fall (SG)’ *wichí-ši* ‘fall to someone (SG)’
ruji ‘fall (PL)’ *rují-ši* ‘fall to someone (PL)’

¹¹ Zúñiga (2014) proposes the notion of surrogation for a particular subtype of benefaction in which the beneficiary “benefits from the fact that s/he does not have to perform a particular action thanks to the intervention of the surrogate”.

¹² Miller (1996: 162) mentions only one case: the verb *ihpába-se* ‘throw-APPL’.

- (79) a. *pá-ka!*
 throw-IMP.SG
 'Throw it!'
- b. *tamí ku pá-ši-ri pelóta!*
 me REV throw-APPL-IMP.SG ball
 'Throw the ball back at me!'
 (Caballero 2008: 415)
- (80) a 'search' *á-mi* 'search for someone'
nakare 'cut off ears' *nakaré-mi* 'cut off ears for someone'

Finally, in River GU, Félix (2007: 126–128) has identified locative, instrumental and comitative applicativizations, in which the corresponding postposition of the base construction is attached to the base verb stem in the derived construction in order to license the applied object. No mention of these applicative constructions is made by Miller (1996) for Mountain GU and, according to subsequent studies on applicativization in River GU (Ávila 2012; Casas 2018), these non-benefactive optional applicatives in GU are not really accepted, at least for some native speakers of River GU (Casas 2018: 167). These cases are presented below.

- (81) a. *waní simi-ré tiendá-čl.*
 John go-PFV store-LOC
 'John went to the store.'
- b. *waní simi-ri-áčl tiendá.*
 John go-PFV-APPL store
 'Juan went-to the store.'
- (82) a. *hustína wičo-na wakirá haóni-e /ooná-e.*
 Agustina wash-PRS shirt soap-INS salt-INS
 'Agustina washes the shirts with soap/salt.'
- b. *hustína wičo-ná-e wakirá haóni /ooná.*
 Agustina wash-PRS-APPL shirt soap salt
 'Agustina washes the shirts with soap/salt.'
- (83) a. *maría simi-ré obregón ahpó ye'yé-ma.*
 Mary go-PFV Obregón 3SG.NSBJ mother-COM
 'María went to Obregón with her mother.'
- b. *maría simi-ré-ma obregón ahpó ye'yé-ma.*
 Mary go-PFV-APPL Obregón 3SG.NSBJ mother-COM
 'Did Mary go to Obregón with her mother?'

In the case of the comitative applicativization in (83b), the presence of the postposition as a verbal suffix is not accompanied by the encoding of the original postpositional complement as a direct object. This participant still has the postpositional marking. No valency-increasing is present here. Additionally, as indicated by the translations in (82) and (83), these constructions would imply a change in the communicative function from indicative to interrogative.

In sum, two main mechanisms can be identified in TA and GU for the marking of the undirected/directed alternation. The first one is morphological and it corresponds to the applicative suffixes illustrated in this section. The second one is morphophonological and it refers to the final vowel alternation in which the verbal stem ending in *e* is used to encode the directed verb. It is clear that both marking strategies are historically related. According to Brambila (1953), Miller (1996) and Caballero (2008), the vowel alternation seems to be the consequence of the *e*-suffixation but it is also possible that the final vowel alternation is the oldest system¹³ and that new markers have been created by combining the final vowel alternation and different types of transitivizing suffixes, as suggested by the examples of *-na*, *-tza*, *-wa* 'CAUS' vs. *-ne*, *-tze*, *-we* 'APPL'.¹⁴ Independently of the chronological relations between both strategies, they are clearly interconnected and they illustrate how morphology and phonology can be related in the encoding of the undirected/directed alternation.

Another example of how morphophonology is used for marking the undirected/directed alternation is exemplified in (84) from Choguita TA. In (84b), the benefactive applicative suffix *-i* seems to have fused to the verbal stem, with the consequence that the encoding strategy for the undirected/directed alternation is now reduced to the single stress shift of the final vowel *i*. The alternation is in this case between a final unstressed *i*, which is associated with the transitive stem and a final stressed *i* associated with the directed transitive stem.

- (84) a. *nihé ba'arí iči-méa muni.*
 1SG.NOM tomorrow plant-FUT.SG beans
 'I will plant beans tomorrow.'
- b. *nihé ba'arí ne yé-ra iči-ma.*
 1SG.NOM tomorrow 1SG.NOM mother-POSS plant.APPL-FUT.SG
 'I will plant for my mom tomorrow.'
- (Caballero 2008: 238–9)

¹³ The presence of an old verbal pattern involving the change of the final vowel of the stem for distinguishing between intransitive and transitive verbs has been proposed for the PUA by Langacker (1977: 132). In his reconstruction, this non-affixal variation corresponds to a general UA *i/a* distinction, with *a* for transitives and *i* for intransitives.

¹⁴ Regarding the suffix *-é*, Miller (1996: 160) considers it to be the most basic applicative suffix and to be probably included in the other GU applicative markers.

This possibility to encode the undirected/directed alternation via stress shift is also found in GU with the verb *nahté* ‘pay’, which is the lexicalized directed version of *nahte* ‘cost’ (Miller 1996: 362).

4 Syntax, semantics and pragmatics of applicativization

4.1 The status of the object in applicative constructions from transitive verbs

Although applicative constructions from transitive base verbs in YQ, PB, NT, TA and GU are double object constructions, the original object tends to become a low prominence object, since the only object that can be passivized is usually the applied object, showing cases of asymmetric applicatives (Pylkänen 2008). This asymmetry is exemplified in (85) with data from YQ.

- (85) a. *María-Ø u-ka toto'i-ta jinu-ria-wa-k.*
 Mary-NOM DET-ACC hen-ACC buy-APPL-PASS-PFV
 ‘Mary was bought the hen.’
 b. **U toto'i-Ø María-ta jinu-ria-wa-k.*
 DET hen-NOM Mary-ACC buy-APPL-PASS-PFV
 Intended: ‘The hen was bought for Mary.’
 (Guerrero 2007: 198)

The only language in which symmetric applicatives have been found is GU. Example (86b) from River GU show the passivization of a benefactive applicative transitive marked by the suffix *-ke*, in which the subject is the applied object (*ne* ‘1SG.NOM’), while the subject is the original object (*muní* ‘beans’) in (86c).

- (86) a. *Hustína no'ó pasú-ke-re muní.*
 Agustina 1SG.NSBJ cook-APPL-PFV beans
 ‘Agustina cooked beans for me.’
 b. *pasu-ke-ré-tu=ne muní (Hustína-e).*
 cook-APPL-PFV-PASS=1SG.S beans Agustina-INS
 ‘I was cooked beans (by Agustina).’
 c. *muní no'ó pasu-ke-ré-tu (Hustína-e).*
 beans 1SG.NSBJ cook-APPL-PFV-PASS Agustina-INS
 ‘Beans were cooked for me (by Agustina).’
 (Félix 2005: 259)

The same possibility is present in Mountain GU. In (87a), the verb *wera* ‘put’ that has been applicativized by the suffix *-ié*, and passivized by the suffix *-ru*, has as subject the original object (the theme *sigori* ‘pot’), while this subject is the applied object (the recipient *remé* ‘1PL.SBJ’) in (87b).

- (87) a. *Pié sigori wer-ié-ba-ru=ra isuki wa’a.*
 one pot put-APPL-INCH-PASS.PST=RPT tesgüino over_there
 ‘They put him (the coyote) a pot of tesguino over there.’
 (Miller 1996: 97)
 (Lit. They say that a pot was put (to him), tesgüino over there.)
- b. *Pa=remé yomá to’-é-reru pa?wi.*
 already=1PL.SBJ all put-APPL-PASS.PST water
 ‘We’ve already been watered.’
 (Miller 1996: 98)

4.2 Applicativization, valency and discourse

Applicativization in UA languages of NW Mexico always implies a valency increase, in which a non-agent and usually non-patient animate (mostly human) participant has been added to the situation denoted by the base construction, encoded as object. The only rare and dubious exception that has been found is the comitative applicativization in GU exemplified in (83b), in which the expected valency increase is not present since the comitative participant retains its oblique marking in the applicative version. As for the undirected/directed alternation encoded by the equipollent marking, the absence of valency increase is also observed in only one case, that is the final stem vowel alternation involved in the verb pair of GU *pichiká* ‘believe in something’ / *pichiké* ‘believe in someone’ (see Example [68]).

In cases of optional applicatives, the applied participant is promoted from an oblique to a core function, implying the acquisition of more topicality and more pragmatic prominence in comparison with its original position in the base construction. This explains why in discourse, applicativization can be used as a topicalization device for referential discourse continuity. This is the case for instance in YQ with Example (88), taken from Álvarez (2019).

- (88) *Es ké=nee a=tá’aru-ria-k*
 the_fact_is_that=1SG.ACC 3SG.ACC=lose-APPL-PFV
úme ilí jaámuch-im áma’a.
 DET.PL little woman-PL there
 ‘The fact is that my daughters lost it.’

This example is extracted from a conversation in which the speaker is talking about himself. After a few clauses in which the speaker is referring to himself as the subject of the clauses, comes the exemplified clause in which the applicativization is accompanied by the right-dislocation of a different subject (*ume ilí jaámuchim* ‘the girls’), which allows the applied object (referring to the speaker: *nee* ‘1SG.ACC’) to occupy the first position after the focus structure borrowed from Spanish *es ké* ‘the fact/reason is that’. In (88), the speaker is thus using simultaneously a focus structure, applicativization, and right-dislocation to topicalize himself and to maintain referential discourse continuity.

Applicativization can also be used as a focalization device. This possibility is illustrated in (89) from Norogachi TA, with the verb *rara* ‘to buy’. In (89a), the subject is in initial position, followed by the benefactive oblique complement, and by the predicate with the base verb and the object complement in final position. The applicativization in (89b) serves to focalize the benefactive participant, which appears in the initial position and marked by the emphatic particle *ka* (the subject pronoun between the applied object and the emphatic *ka* is a second position clitic pronoun).

- (89) a. *mujé ko pe kúruí gite rara-re bera kawa.*
 2SG.NOM CONJ only children for buy-PFV CONJ eggs
 ‘But you bought eggs just for the kids.’
 (Brambila 1976: 180)
- b. *tewé ne ka súkaro rarí-i-ma.*
 daughter 1SG.NOM EMPH sugar buy-APPL-FUT
 ‘I will buy sugar for my daughter.’
 (Lit. ‘For my daughter, I will buy sugar.’)
 (Brambila 1953: 183)

The focalization of the directed participant can also be expressed by the equipollent marking of the undirected/directed alternation. The examples in (90) from GU (Miller 1996: 101) illustrate this possibility with the grooming verb *u’upa* ‘to bathe’.

- (90) a. *u’upa-ma=ne.*
 bathe.INTR-FUT=1SG.NOM
 ‘I am going to bathe.’
- b. *no’ó u’upé-ma=ne (wa’ábi).*
 1SG.NSBJ bathe.APPL-FUT=1SG.NOM self
 ‘I am going to bathe.’
 (Lit. To me, I am going to bathe.)

In (90a) and (90b), two different constructions (intransitive-reflexive in [90a] and transitive-directed in [90b]) are used for denoting the same reflexive situation. The difference lies of course in the discourse and pragmatic functions associated with these constructions. While (90a) is the unmarked construction, (90b) is used to indicate information

that is contrary to the presupposition of the interlocutor, that is a contrastive focus. Note again that, like in applicativization in (89b), the directed participant appears as the first and most topical element of the clause, here as an example of focus fronting (Krifka 2008; Neeleman and Vermeulen 2012).

4.3 The semantic contrast in optional applicatives

In optional applicatives, the applicative construction with the applied object and the base construction with the same participant encoded as a postpositional object can present some subtle semantic differences. For instance, in YQ, the activity denoted by the base verb *bwika* ‘sing’ is carried out on behalf of someone if this human participant is encoded as a postpositional object (91a), and for the benefit of someone if the human participant is an applied object (91b).

- (91) a. *aapo bwika-k e-betchi'ibo.*
 3SG.NOM sing-PFV 2SG.OBL-for
 ‘He/she sang on behalf of / instead of you.’
 b. *aapo enchi bwika-ria-k.*
 3SG.NOM 2SG.ACC sing-APPL-PFV
 ‘He/she sang for you.’
 (Guerrero 2022: 30)

Another example involves the verb *jima* ‘throw’. In the base construction in (92a), the human participant marked by the directional postposition *-u* is a human goal/recipient and the clause is understood as Peter and the child are playing ball together. In the applicative construction in (92b) the reading is malefactive and the clause is understood as Peter threw the ball at the child in order to hurt him or hit him.

- (92) a. *Peo-Ø ili usi-ta-u pelotam jima-k.*
 Peter-NOM little child-ACC-DIR ball.PL throw-PFV
 ‘Peter threw a ball to the boy.’ (goal/recipient reading)
 b. *Peo-Ø ili usi-ta pelotam jima-ria-k.*
 Peter-NOM little child-ACC ball.PL throw-APPL-PFV
 ‘Peter threw a ball (at) the boy.’ (malefactive reading)
 (Guerrero 2022: 34)

With the verb *etbwa* ‘steal’, the applied object is associated with a source/malefactive meaning (93a), while the postpositional object introduced by *betchi'ibo* triggers the benefactive meaning (93b).

- (93) a. *Goyo-Ø Aurelia-ta u-ka toto'i-ta etbwa-ria-k.*
 Goyo-NOM Aurelia-ACC DET-ACC hen-ACC steal-APPL-PFV
 'Goyo stole the hen from Aurelia.'
- b. *Goyo-Ø u-ka toto'i-ta etbwa-k Aurelia-ta-betchibo.*
 Goyo-NOM DET-ACC hen-ACC steal-PFV Aurelia-ACC-for
 'Goyo stole the hen for Aurelia.'
- (Guerrero 2007: 189)

In the cases of locative, instrumental and comitative applicatives in GU, Félix (2007) points out the existence of a semantic contrast (not always very clear) between the applied and the postpositional versions. The locative applicative implies that John remained in the store for a longer period of time in (81b), while instrumental and comitative applicatives in (82b) and (83b), respectively, provide unexpected information and are therefore perceived by the native consultant as a question (Félix 2007: 130).

4.4 The use of applicativization for discourse coherence

As mentioned in Section 2, third person object pronouns in TA, GU, PB, and NT are usually dropped in discourse, when context is clear enough to identify these object arguments. This dropping is frequently associated with the applicative marking in these languages.

As Brambila (1953: 53) pointed out, in Norogachi TA accusative and dative pronouns of applicative verbs are often dropped in discourse because "they are included in the verb". The applicative suffixes express the relation between a verb form and its directed complements, without the necessity to express this complement in the clause,¹⁵ and the presence of the applicative suffix (or the directed verb stem ending in *e*) is often the unique indicator of the presence of this additional (most commonly, human) participant, thus functioning as an important device for referential continuity.

In Norogachi TA discourse, it is thus frequent to have no (pro)nominal mention of the applied object. The applied object is left implicit, being anaphorically present and, therefore, contextually retrievable. In this case, only the verb form implies the presence of the applied object. Although the semantic valency has been increased (a new participant has been added to the situation denoted by the base construction), the syntactic expression of this increasing is not always present.

Estrada (2007: 97–101, 2014: 213) also mentions the same phenomenon in PB, which also allows the non-specification of applied arguments. The presence of the applicative marker is sufficient to indicate that the situation denoted by the base verb is applied

¹⁵ The applicative verb is named by Brambila (1953: 176) a "relative verb", since "it includes the relation to its complements" (our translation).

to an animate third person participant, even though this non-specification may cause sometimes some ambiguities. For GU, Miller (1996: 97) also mentions that, in discourse, it is common to omit the applied object when the context is clear. Félix (2005: 259–260) also states that all third person participants can be omitted, like in the transitive construction (94a), in the applicative construction (94b) or even in its passivized version (94c).

- (94) a. *pasu-ré.*
 cook-PFV
 ‘She/he cooked it/them.’
 b. *pasú-ke-re.*
 cook-APPL-PFV
 ‘She/he cooked it/them for him/her/them.’
 c. *pasu-ké-re-tu.*
 cook-APPL-PFV-PASS
 ‘She /he was cooked something.’ /
 ‘Something was cooked for him/her/them.’

The use of the applicativized verb to indicate the presence of an object complement without the need to overtly encode it outside the verb as a (pro)nominal argument, is obviously favored by the fact that 3rd person object pronouns are dropped, but this object omission is also possible with 1st and 2nd person pronouns, as exemplified in (95b) from Norogachi TA. In this case, since the object is not expressed but only implied, the function is alike a pragmatic antipassivization, when compared with the construction without the applicative suffix in (95a).

- (95) a. *tasi chi ku’wi karlo.*
 NEG me help Carlos
 ‘Carlos does not help me.’
 (Brambila 1976: 280)
 b. *bineri tza mu gayena? képi-o, bonirá ku’wi-ri-re.*
 alone perhaps 2SG.NOM do NEG-EMPH brother help-APPL-PFV
 ‘Did you do it alone?—No, my brother helped (me).’
 (Brambila 1953: 182)

In this use, the implied object complement is not always a human participant, it can also be an inanimate patient (this possibility is usually found with the directed verb stem ending in *e* as in (74) or with the applicative suffixes *-e* or *-ne*).¹⁶ However, Brambila

¹⁶ The examples proposed by Brambila (1953) for exemplifying the uses of the different applicative suffixes in Norogachi TA show that the suffixes *-(C)i* (*-i*, *-ri*, *-ki*, *-gi*, *-mi*) have a strong tendency to combine with transitive base verbs in order to add an animate participant as a beneficiary, while the suffixes *-(C)e* (*-e*, *-ne*, *-tze*, *-we*) are usually combined with transitive and intransitive verbs in order to add an object

(1953: 188) pointed out that, in this case, the relative form is more often substituted by the verb form ending in *i/a*. In the same vein, when the directed verb form is used, the absence of the object complement is obviously not mandatory, and the object complement can thus be overtly encoded.¹⁷

As mentioned above (Example [74]), this use in discourse could have favored the need for a double suffixation in cases of ditransitive verbs, since two objects are involved with these verbs. The use of the double marking of the directed relation could also have opened up the possibility to have inanimate participants added as implicit applied objects, something that can be found with the directed verb stems and some applicative suffixes in Norogachi TA but that is very infrequent in applicative constructions of the other UA languages of NW Mexico.

5 Causative-applicative syncretism

The causative-applicative syncretism is pervasive in UA languages from NW Mexico. It appears with the suffix *-di/-id* in PB and the suffix *-d^(y)i/-d^(y)a* in NT, which act as causativizers if the base verb is an inactive intransitive verb, and as applicativizers if the base verb is an active intransitive or a transitive verb.

Additionally, in PB, the use of the suffix *-di/-id* with some active intransitive verbs triggers a sociative causative reading. This is the case for example with the verbs *hi'a* ‘urinate’ (96a) and *tikpan* ‘work’ (96b).

- (96) a. *Marii lii oob hiaa-di.*
 María DIM.SG person urinate-APPL
 ‘Mary took the child to urinate.’
 (Estrada 2014: 215)
- b. *ig di’ir ilbaah tikpan-di-a.*
 DET.SBJ mother girl work-APPL-PROS
 ‘The mother will take the girl to work.’
 (Estrada 2014: 215)

complement that can be a human participant with a diversity of semantic roles or even an inanimate patient. The directed verb stem ending in *e* has a behavior similar to the suffixes *-(C)e*.

17 As Brambila (1953: 188) also acknowledged, the use of the relative verb forms is not always consistent. The directed verb form can be used with the object complement expressed as a pronoun or as a noun phrase, and some transitive verbs ending in *i/a* can be used intransitively, that is, without an object complement, although in the context, it is clear that the situation includes an object participant, as in (i).

- (i) *má ne kašina.* instead of *má ne kašine.*
 already 1SG.NOM break.INTR already 1SG.NOM break.APPL
 ‘I have already broken.’ ‘I have already broken (it).’

In GU, the suffix *-če*, which has been exemplified in its applicative use in (50), can also have a causative function with stative or inchoative intransitive base verbs.

- (97) *čeha-*, *cehi-*, *če-* ‘be stung’ *če-če-* ‘sting, vaccinate’
tahtá- ‘be warm’ *táhta-pa-* ‘be hot-INCH ‘get warm’ *táhta-pa-če* ‘heat’

The causative-applicative syncretism is also present in Norogachi TA with the causative suffix *-ri* that acts as an applicative marker when used as the second element in double applicatives (see Examples [71]). In some cases, it can even serve as an applicative marker in simple suffixation (see Example [75b]). As mentioned before (see Footnote 10), this situation may cause cases of ambiguity between causativization and applicativization (Brambila 1953: 180).

The derivational uses of applicative suffixes in UA languages from NW Mexico also illustrate the causative-applicative syncretism, since these suffixes also serve to create causative verbs usually out of adjectives and/or nominals. For instance, the suffix *-di/-id* in PB can be used as a denominal factitive verbalizer, that is, a derivational marker creating active verbs out of nouns with the general meaning ‘to exert on a patient an action related with N’ (Estrada 2007: 92–93).

- (98) *suusk* ‘shoes’ *suusuk-id* ‘to shoe (horse)’
hivil ‘wind’ *hivil-di* ‘to fan, to air’
kubis ‘smoke’ *kubis-di* ‘to smoke’
si’i ‘breast’ *si’i-di* ‘to feed’

It can also be attached to adjectives/stative verbs in order to create a causative verb with the general meaning ‘to cause the state denoted by the base’.

- (99) *onmag* ‘be salty’ *onama-d(i)* ‘salt’
kaplik ‘be small’ *kap-id-ir* ‘shrink’
doa ‘be cured’ *doali*, *doar* < *doadi* ‘cure’
tuuk ‘be dark’ *tuk-id* ‘darken’
tipilik ‘be flat’ *tipilik-id* ‘flatten’
toahk ‘be white’ *toah-id* ‘whiten’
i’ov ‘be sweet’ *i’ov-id* ‘sweeten’
u’uv ‘be odorous’ *uuvag-id* ‘sniff’

The suffix *-d^(v)i/d^(v)a* in NT can also be used with this same verbalizing effect (Bascom 1982: 299–300), as exemplified in (100) and (101).

- (100) *kukúrus-d^va-ni!*
 cross-VBZR-IMP
 ‘Make the sign of the cross!’

- (101) *viĩš tása-i vaamí-óma to~tóĩñ-d'a-ri-i.*
 all day-ABS more-COMPAR RDP~CONT-hot-VBZR-become-PRS
 'Every day it keeps getting hotter.'

The same type of verb formation is also found in YQ with the applicative suffix *-ria* (Dedrick and Casad 1999; Álvarez and Estrada 2009; Guerrero 2007: 185), as shown in (102) from nominal bases and in (103) from adjectival bases.

- (102) *bwichopia* 'smut' *bwichop-ria* 'smoke'
pajko 'party' *papajko-ria* 'celebrate'

- (103) *suka* 'hot' *suka-ria* 'heat'
awi 'fat' *awi-ria* 'fatten'
bali 'cold' *bali-ria* 'cold, freeze'

This formation of active transitive verbs is also possible with at least one adverbial base and one intransitive base verb.

- (104) *bu'u* 'too, a lot' *bu'u-ria* 'increase, accumulate'
yo'otu 'grow' *yo'otu-ria* 'raise, cultivate, make grow'

Some examples of active verbs created out of nouns via applicative suffixation in (105), and via equipollent marking in (106), can also be found in Norogachi TA.

- (105) *nakí* 'addendum' *naki-we* 'add'
wesó 'mud' *weso-ge* 'mire'
- (106) *niwí* 'nostalgia' *newe* 'long for someone'
sawí 'coal' *sawe* 'carbonize'

Additionally, the causative-applicative overlap can also be illustrated with the verb *weiyaa* 'carry', which has been analyzed above as probably involving an applicative periphrasis. However, the meaning of this verb can also be rendered by a causative periphrasis from the base verb *weye* 'go', and Example (43b) could be thus interpreted as a causative construction, with the meaning 'The woman is making the water go in the pot.'

Lastly, the same polyfunctionality found with the suffixes used in applicativization and causativization can also be observed in the equipollent marking in which the change of the final verb stem vowel from *i/a* to *e* in TA and GU, is associated with the non-causal/causal alternation if the verb stem ending in *i/a* is an inactive intransitive, and with the undirected/directed alternation if the stem ending in *i/a* is an active intransitive or a transitive verb.

6 Applicative lookalikes

6.1 Lexicalized applicatives

Several verbs in the UA languages from NW Mexico end in the form found in applicative constructions but, in a strictly synchronic perspective, they are not clearly analyzable as applicative derivatives, since the meaning of the base verb has changed in such a way that the derived construction cannot be interpreted as the same situation denoted by the base verb but with the addition of a new object participant. However, a semantically plausible relationship between the meanings of the base construction and of the derived construction can usually be identified, justifying the use of the applicative marker at least in diachrony and via a semantic shift (usually, a metonymy). In these cases, exemplified in (107) for GU, YQ and NT, it is possible to consider these verbs as lexicalized applicatives, or pseudo-applicatives.

- | | | | |
|-------|----|---|--|
| (107) | GU | <i>ihpa-</i> ‘throw something (SG.OBJ)’ | <i>ihpá-ge, ipa-ké</i> ‘milk (the cow)’ |
| | | <i>tui-</i> ‘say’ | <i>tu-ké</i> ‘ask’ |
| | | <i>tari</i> ‘buy’ | <i>tari-ké</i> ‘sell something to someone’ |
| | YQ | <i>wike</i> ‘drag, pull’ | <i>wiki-ria</i> ‘owe’ |
| | | <i>siime</i> ‘go (SG.SUBJ)’ | <i>sim-ria</i> ‘abandon someone’ |
| | NT | <i>gáágai</i> ‘look for’ | <i>gaagí-d’a</i> ‘provide for’ |

As expected, the same lexicalization is possible with equipollently-marked verb pairs, as shown in (108) from GU.

- | | | | |
|-------|----|---------------------------------------|---|
| (108) | GU | <i>po’táča-</i> ‘tie’ | <i>po’tačé</i> ‘close with lid’ |
| | | <i>yahčá-</i> ‘seat, put’ | <i>yahčé-</i> ‘serve someone (food)’ |
| | | <i>sipa</i> ‘scrape’ | <i>sipé</i> ‘do harm, bewitch’ |
| | | <i>peni</i> ‘learn’ | <i>pené</i> ‘know how to do, have the habit of’ |
| | | <i>u’natá</i> ‘think about, remember’ | <i>u’naté</i> ‘care’ |

6.2 Applicative deponents

Several verbs in the UA languages from NW Mexico only occur with an ending that could be the marker that distinguishes base and applicativized versions of other verbs, but only the seemingly applicativized verb is existing, and the expected base verb does not exist in the language. These cases exemplified in (109) with data from YQ and GU can be viewed as cases of *applicativa tantum* or applicative deponents (Zúñiga and Creissels, this volume).

(109) YQ	<i>e'e-ria</i> 'keep'	<i>*e'e-</i>
	<i>nanaj-ria</i> 'avoid someone'	<i>*nanaj-</i>
	<i>koo-ria</i> 'rock someone'	<i>*koo-</i>
	<i>ku-ria</i> 'turn, tangle'	<i>*ku-</i>
	<i>jijja'ria</i> 'scare'	<i>*jijja'</i>
GU	<i>inatu-ké</i> 'ask'	<i>*inatu-</i>
	<i>ihkó-ke</i> 'offer something to one person'	<i>*ihkó-</i>
	<i>ihkó-ge</i> 'distribute, offer'	
	<i>ihkó-nie</i> 'offer something to several persons'	
	<i>nate-ké</i> 'forget'	<i>*nate-</i>

Estrada (2014: 178) points out that many ditransitive verbs in PB are diachronically derived with the applicative suffix *-id/-ir*, although in synchrony, the base verb is no longer present in the language. Some examples are:

- (110) PB *bid* 'serve something to someone'
ho'ir 'offer something to someone'

7 Conclusions

In this chapter, the applicative constructions attested in UA languages of NW Mexico have been described, as well as the pervasive causative-applicative syncretism found in the data. Following the questionnaire proposed as a guideline for the contributions to this volume, the main aspects of applicative constructions in UA languages of NW Mexico are as follows:

Morphology

- Applicativization is made via suffixation in all these languages (§ 3), but some languages use only one suffix (PB, YQ), while others have several applicative suffixes (NT, TA, GU). The marking of the undirected/directed alternation by means of equipollent marking or stress shift, found in TA and GU, probably resulted historically from the fusion of a suffix with the base (§ 3.4).
- The possible vestiges of an applicative periphrasis have been found in YQ (§ 3.3). This unproductive strategy involves a functional verb *iyaa* 'to pretend, to wish'.
- The only applicative suffix that does not show allomorphy is the suffix *-ria* in YQ. In the other cases, the allomorphy seems to show different kinds of conditioning: phonological (suffix *-di/-id* in PB), morphological (suffix *-d^(v)a* is used for imperative, *-d^(v)i* for imperfective, and *-tuli* for perfective in NT, Footnote 7) or lexical (applicative suffixes in TA and GU).

- Except for the above case of morphologically-conditioned allomorphy in NT, inflectional verb morphology does not seem to be affected by applicative suffixation in UA languages of NW Mexico.

Syntax

- Applicativization in UA languages of NW Mexico is generally not allowed for inactive intransitive base verbs, and benefactive applicativization shows a strong preference for transitive base verbs.
- UA languages of NW Mexico only have P-applicativization, in which the applied phrase is a noun phrase showing all the properties that characterize objects in non-applicative constructions. The only case of X-applicativization exemplified in (83b) is problematic.
- Applicatives in UA languages of NW Mexico are always valency-increasing constructions, in which the syntactic status of the applied phrase's companion arguments/adjuncts does not change in comparison with the base construction.
- Double marking is found in NT, TA and GU, and it can be the result of double applicative suffixation or the combination of a directed verb stem and the benefactive applicative suffixation. This double marking is redundant in Choguila TA (§ 3.4), it is the main form to express benefactive applicatives in NT (§ 3.2), while in Norogachi TA, it is mainly used for referential discourse coherence (§§ 3.4 and 4.4).
- There is no difference between applicative constructions and constructions with underived predicates belonging to the same valency class.
- Optional applicatives in UA languages of NW Mexico are not conditioned by limited access of obliques to some syntactic operations.

Semantics

- The applicative suffixes found in UA languages of NW Mexico are usually markers that can license, depending on the meaning of the verb base, all the different non-agent and non-patient semantic roles that can usually be associated with animate (mostly human) participants (recipient, beneficiary/maleficiary, stimulus, source, concerne, etc.). Their semantic under-specification is thus restricted by animacy (mostly humanness). However, TA, GU and NT have developed dedicated applicative markers for the benefactive meaning.
- With the exception of Norogachi TA in which the applied object can refer to an inanimate patient, the semantic roles expressed by the applied phrase in UA languages of NW Mexico are those that can be associated with non-agent and non-patient animate (mostly human) participants. These participants can be peripheral (such as a beneficiary) but they can also be central participants required by the lexical meaning of the base verb. In this case, the applicative construction tends to be an obligatory applicative construction in those languages in which no marking

difference is made between direct and indirect object (TA, GU, PB, and NT). By contrast, benefactive applicatives are always optional applicatives.

- Some semantic contrasts between the base construction and the applicative construction have been pointed out in Section 4.3. These differences are sometimes quite subtle and no clear semantic pattern has been detected, except in YQ in which the applied object in applicative constructions from active intransitive verbs tends to be associated with benefaction, while its counterparts encoded as a benefactive postpositional object in the base construction is associated with surrogation (see Examples in [91])
- Some cases of topicalization and focalization via applicativization have been mentioned in Section 4.2. Interestingly, they tend to involve the promotion of a speech act participant (the speaker) to the object function and to the first position of the applicative clause, suggesting that discourse referential continuity, topicalization/focalization and speech act participants are motivating factors for the use of applicative constructions.
- The distribution of applicativized verbs in UA languages of NW Mexico with the dropping of object pronouns (TA, GU, PB and NT) is strongly dependent on their uses as referential coherence markers in discourse (§ 4.4).

Lookalikes and others

- Non-applicative functions of the applicative markers are mainly associated with the pervasive causative-applicative syncretism found in UA languages of NW Mexico (§ 6).
- Lexicalized applicatives and applicative deponents are not rare in UA languages of NW Mexico (§ 7).

Abbreviations

ABS	absolute
ACC	accusative
ADJR	adjectivizer
AL	alienable
ANT	anterior
APPL	applicative
BEN	benefactive
CAUS	causative
COM	comitative
COMPAR	comparative
COMPL	completive
COND	conditional
CONJ	conjunction
CONT	continuative

DEM	demonstrative
DES	desiderative
DET	determiner
DIM	diminutive
DIR	directional
DUB	dubitative
EMPH	emphatic
EXPL	expletive
EV	evidential
FUT	future
GER	gerund
HAB	habitual
IMP	imperative
IPFV	imperfective
INCH	inchoative
INS	instrumental
INTER	interrogative
INTR	intransitive
IT	iterative
LOC	locative
NEG	negative
NMLZ	nominalizer
NNTR	neutral number
NSBJ	non-subject
NOM	nominative
OBJ	object
INDF	indefinite
OBL	oblique
PART	particle
PASS	passive
PCN	past continuative
PST	past
PFV	perfective
PL	plural
POSS	possessive
POT	potential
PROG	progressive
PROS	prospective
PRS	present
PTCP	participle
RDP	reduplication
RPT	reportative
SG	singular
SBJ	subject
TR	transitive
VBZR	verbalizer

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Marianne Mithun

17 Applicative constructions in the Inuit-Yupik-Unangan (Eskimo-Aleut) languages

Abstract: Six applicative constructions can be identified in languages of the Yupik-Inuktitut-Unangan family. The languages show basic ergative/absolutive patterning in nominal case marking, and only definite referents can be core arguments. The applicatives add an argument which is cast as the absolutive of a transitive clause. The base clause may be intransitive or transitive, but if it was transitive, the original absolutive is expressed as an oblique or not mentioned. One general applicative, with cognates across the family, is quite productive and can add a recipient, a beneficiary, a referent affected by natural phenomena, a companion, an instrument, or a reason. Within the Yupik-Inuktitut branch, one additional applicative built on this can add a reason in Yupik, and an instrument, means, cause, or reason in Kalaallisut (Greenlandic). Another can add a spatial goal. Yup'ik also contains an adversative applicative and a replacive applicative 'in place of'. Kalaallisut also contains a comitative applicative. Applicative clauses can be nominalized to form terms referring to the applied absolutive. Within discourse, applicatives can function to bring topical referents into the core, but because they are derivational, their use depends on the inventories of derived lexical items in each language.

1 Introduction

Languages of the Inuit-Yupik-Unangan family are spoken over a wide area of the Arctic from Siberia to Greenland. The family consists of two main branches, Inuit-Yupik and Unangan (Aleut). Relations among the languages essentially as laid out by Fortescue, Jacobson, and Kaplan are in Figure 1. **Languages** are listed in boldface and major *dialects* in italics.

Views on the prehistory of the family, based on archaeological and linguistic evidence, are summarized in Dorais (2010: 95–105). It is estimated that about 4500 years ago, speakers of the common parent language were living in what is now Alaska, their language having replaced those of earlier communities there. Around this time ancestors of the Unangan (Aleut) began migrating to the Aleutian Islands. Between 3000 and 2000 years ago the remaining group split. The Sirenikski crossed the Bering Strait to Chukotka. (The place of Sirenikski, as a separate subbranch within Inuit-Yupik, or part of the Yupik subbranch, remains under discussion.) The Yupik peoples then spread out: the Sugpiat (Alutiit) made their way to south central Alaska, and the ancestors of the Central Siberian Yupiget and the Naukanski followed the Sirenikski to Chukotka. Between 1000 and 800 years ago the Iñupiat moved into Yupik territory on the Seward

Inuit-Yupik (Eskimoan)

Inuit-Iñupiaq

Greenlandic Inuit

North Greenlandic = Polar Eskimo (Inuktun, Inughuit), West Greenlandic = Kalaallisut, East Greenlandic (Tunumiisut, Ivin)

Eastern Canadian Inuit

Aivilik, South Baffin, Tarramiut, North Baffin-Iglulik, Itivimmiut, Labrador = Nunatsiavummiutet

Western Canadian Inuit

Siglit, Copper, Caribou, Netsilik

North Alaskan Inupiaq

Malimiut, North Slope

Seward Peninsula Iñupiaq

Bering Strait, Qawiaraq

Yupik

Sirenikski**Central Siberian Yupik**

Chaplinski = Ungazigmiistun, St. Lawrence Island = Sivuqaghmiistun

Naukanski = Nuvuqaghmiistun**Central Alaskan Yup'ik**

General Central Alaskan Yup'ik = Yugtun, Hooper Bay/Chevak = Cup'ik, Egegik, Nunivak = Cyp'ig, Norton Sound = Cugtun

Alutiiq = Pacific Gulf Yupik = Sugpiaq

Koniag = Alutit'stun, Chugach = Sugt'stun

Unangan (Aleut)**Unangan = Aleut**

Eastern, Western

Figure 1: The Inuit-Yupik-Unangan family (Fortescue, Jacobson, and Kaplan 2010).

Peninsula in Alaska. The ancestors of the modern Inuit, the Thule, began moving eastward across the Arctic, reaching Greenland by around 1600 (McGhee 2015).

It should be noted that the term *Eskimo* is no longer used among some groups. *Yupiit* is used by many for peoples in southwestern Alaska, *Inuvialuit* by those in the Mackenzie region of the Northwest Territories, *Inuktun* in much of western Canada, *Inuit* ('human beings') in eastern Canada, and *Kalaallit* in Greenland. Other groups do not generally object to the term.

One applicative construction has cognates across the family, but additional constructions have developed in the Yupik and Inuktitut languages. The Yupik branch is represented here by General Central Alaskan Yup'ik (Yup'ik; ISO esu), spoken in southwestern Alaska, the Inuit-Iñupiaq group by Kalaallisut (ISO kal), spoken on the west coast of Greenland, and Unangan (ISO ale) by the Eastern and Western dialects of the Aleutian Islands. The discussion has benefited greatly from work with Yup'ik speakers Elena Charles, George Charles, and Elizabeth Ali, and Kalallisuut linguist and first-language speaker Carl Christian Olsen. Modern published works on each of these languages contain important discussions of applicatives. For Central Alaskan Yup'ik there is a detailed pedagogi-

cal grammar (Jacobson 1995), a comprehensive dictionary (Jacobson 2012), and a monumental reference grammar (Miyaoka 2012) among others. A grammar of the Chevak dialect of Yup'ik is in Woodbury (1981). For Kalaallisut there is an extensive dictionary (Schultz-Lorentzen 1927) and grammars by Fortescue (1984/1997), Sadock (2003), and Kahn and Valijärvi (2021). For Unangan there is a substantial dictionary and a reference grammar (Bergsland 1994, 1997). In what follows, Section 2 describes the basic structures of the languages, Section 3 their applicative constructions, and Section 4 interactions with morphology, syntax, and discourse. Section 5 provides a summary.

2 Basic grammatical structure

All of the languages are polysynthetic and nearly exclusively suffixing. There are three lexical categories: verbs, nouns, and particles. Verbs and nouns consist of a single root (termed a *BASE* in the literature), optionally followed by any number of suffixes (termed *POSTBASES*), and ending in an obligatory inflectional complex. The verb structure is summarized in Figure 2.

Root = Base	(Suffixes) (= Postbases)	Inflectional Ending	
		Mood	Pronominal suffix

Figure 2: Verb template.

The relative order of postbases is for the most part hierarchical, reflecting scope, though frequently-recurring sequences of suffixes have fused. Inuit-Yupik languages have four independent moods: Indicative, Interrogative, Imperative, and Optative, as well as various dependent moods. Some moods, including the Indicative, distinguish transitivity. The pronominal suffixes identify the core arguments, whether or not coreferential nominals are also present: one for intransitives and two for transitives. As can be seen in the Yup'ik examples in (1) and (2), verbs can stand alone as complete clauses in themselves.¹

- (1) Yup'ik intransitive (Elizabeth Ali, speaker)
Kipusvigtellinilria.
kipute-vig-te-llini-lria
 buy-LOC.NMLZ-go.to-apparently-INTR.PART.3SG
 'He apparently went to the store.'

¹ Examples are presented here in the current standard orthographies.

- (2) Yup'ik transitive (Elizabeth Ali, speaker)

*Tangersuumiitamken.**tangerr-yuumir-ite-a-mken*

see-want-NEG-TR.IND-1SG>2SG

'I do not want to see you.'

The ending on nouns specifies number, case, and optionally possession. Core cases follow an ergative/absolutive pattern. Ergative forms (traditionally called *relative* in the literature) match genitives. Absolutives are generally unmarked. Additional cases in Yup'ik are Ablative, Allative, Locative, Vialis (for instruments and paths), and Aequalis. Possessive suffixes identify both the possessor and possessed, which is normally third person. Basic noun structure is in Figure 3.

Root = Base	(Suffixes) (= Postbases)	Inflectional Ending
		Number, Case (Possession)

Figure 3: Noun template.

Uses of the various cases are for the most part as would be expected.

- (3) Yup'ik Absolutive (Elizabeth Ali, speaker)

*Anngacayaqa**tamaantuq?**annga-qayaq-ka**tamaante-u-q*

older.brother-baby-1SG>3SG.ABS.SG be.there-IND.INTR-3SG

'Is my older brother (**ABS**) there?'

- (4) Yup'ik Ergative (Susan Charles, speaker)

*Ilumun yungcaristem**tagesqaaten.**ilumun yungcari-ste-em**tage-sqe-a-aten*indeed treat.medically-AGT.NMLZ-**ERG.SG** go.up-request-TR.IND-3SG>3SG'Indeed the doctor (**ERG**) has asked you to go up [to the hospital].'

- (5) Yup'ik Ablative (Elizabeth Ali, speaker)

*Nunamnek**watua**avaii**ayallruunga.**nuna-mnek**watua**avai**ayag-llru-u-nga*land-1SG>3SG.**ABL** right.now yonder leave-PAST-INTR.IND-1SG'I just traveled **from** my home (**ABL**).'

- (6) Yup'ik Allative (Elena Charles, speaker)

Tacomamun *alguta.*

Tacoma-mun *age-lu-ta*

PLACENAME-ALL.SG go.over-SUBORD-1PL

'We went over **to** Tacoma (ALL).'

- (7) Yup'ik Locative (Geroge Charles, speaker)

Utaqallruut-qaa *misvigmi?*

utaqa-llru-u-t=qaa *mit'e-vik-mi*

wait-PAST-INTR.IND-3PL=Q alight-LOC.NMLZ-LOC.SG

'Did they wait **at** the airport (LOC)?'

- (8) Yup'ik Vialis (George Charles, speaker)

Ayaumalriaci-qaa *nunakuarcuutkun?*

ayag-uma-lria-ci=qaa *nuna-kuar-cuun-kun*

go-for.long.time-INTR.PRTCP-2PL=Q land-go.by.way.of-INS.NMLZ-VIA.SG

'Did you travel for a long time **by** car?'

- (9) Yup'ik Aequalis (Elizabeth Ali, speaker)

Qanemcilria *elli-gguq, yugtun.*

qanemci-lria *ellii=gguq yuk-tun*

talk.about.things-INTR.PRTCP.3SG 3SG=HRS person-AEQ.SG

'He talks, **in** Yup'ik.'

The case inventories are similar across the Inuit-Yupik languages, though the terminology used to describe them varies slightly. The Kalaallisut cases are Absolutive, Relative (=Ergative), Ablative, Allative, Locative, Instrumental, Perlative or Prolative, and Equative.

In the Inuit-Yupik languages, Absolutives of transitives must be definite. Referents cast as indefinite objects in other languages are expressed as obliques: Ablatives in Yup'ik and the cognate Instrumentals in Kalaallisut. In the Yup'ik sentence in (10), the newly introduced beaver was indefinite. The noun 'beaver' was Ablative and the clause was grammatically intransitive, with the intransitive form of the Indicative mood marker and reference only to the agent in the pronominal suffix.

- (10) Yup'ik indefinite patient (George Charles, speaker)

Paluqtamek *tangerrlinilria,*

paluqtaq-mek *tangerr-llini-lria*

beaver-ABL.SG see-apparently-INTR.PRTCP.3SG

'Then he saw **a** beaver'

<i>kuimalriamek</i>	<i>kuigmi.</i>
<i>kuimar-lria-mek</i>	<i>kuik-mi</i>
swim-NMLZ-ABL.SG	river-LOC.SG
'swimming in the river.'	

Inuit-Yupik verb roots vary according to their possible argument structures (without further derivation). A good discussion is in Jacobson (1995, Chapter 8). Some are used only as intransitives and some only as transitives, but many, termed ambitransitives, can be inflected as either. For some of these, termed *agentive*, the intransitive absolutive corresponds to the transitive Ergative. But for others, termed *patientive*, the intransitive Absolutive corresponds to the transitive Absolutive. The categories are summarized in (11).

(11) Yup'ik verb transitivity categories (Jacobson 1995, 2012)

Intransitive only	<i>igt-u-q</i>	'it is falling'
Transitive only	<i>tegu-a</i>	's/he is taking it'
Ambitransitive		
Agentive	<i>kenir-tu-q</i>	's/he is cooking'
	<i>kenir-a-a</i>	's/he is cooking it'
Patientive	<i>alleg-tu-q</i>	'it tore'
	<i>allg-a-a</i>	's/he tore it'

For some transitive verbs, the Absolutive is comparable to an English direct object: *kenir-a-a* 's/he is cooking **it**'. For others, the Absolutive is a recipient, beneficiary, etc.: *qilug-a-a* 'it is barking **at him/her/it**'. Derivational processes can of course alter the argument structures.

The Unangan inflectional system is slightly different, though cognate relationships can be discerned. There are Ergative, Absolutive, Ablative, and Locative nominal cases, but the Allative, Instrumental, Vialis, and Aequalis cases have been lost.

Unangan sentence structure is also slightly different. As throughout the family, a verb may constitute a complete clause on its own or be accompanied by lexical nominals. In intransitives, the Absolutive is identified by a pronominal enclitic if it is first or second person, and just a number suffix on the verb if it is third.

(12) Unangan intransitive (Bergsland 1997: 343)

Awa-ku-ŋ=txin.
work-PRS-SG=2SG
'You are working.'

(13) Unangan intransitive (Bergsland 1997: 126)

Awa-ku-ŋ.
work-PRS-SG
'S/he is working.'

If there is a lexical nominal, it is Absolutive.

- (14) Unangan intransitive (Bergsland 1997: 126)

Tayaġu-ġ *awak-ku-ġ*.
 man-**ABS.SG** work-PRS-**SG**
 ‘The man is working.’

For transitives, both core arguments are marked in the verb, but a lexical agent is marked as Ergative only if there is no lexical Absolutive.

- (15) Unangan transitive (Bergsland 1997: 138)

Hlam *kidukuu*.
hla-m *kidu-ku-aa*
 boy-**ERG.SG** help-PRS-**3SG>3SG**
 ‘The boy is helping him/her.’

If both arguments are identified by lexical nominals, both are inflected as Absolutes, and only the first is marked in the verb.

- (16) Unangan transitivity (Bergsland 1997: 138)

Hla-ġ *asxinu-ġ* *kidu-u-ġ*.
 boy-**ABS.SG** girl-**ABS.SG** help-PRS-**SG**
 ‘The boy is helping the girl.’

Basic clause structure in all languages of the family is SOV, with alternatives for pragmatic purposes. Because of potential ambiguities, order is somewhat less fluid in Unangan.

3 Applicatives

Six applicative constructions can be identified among these languages. One has cognates across the family. Two more have cognates across the Inuit-Yupik languages. A fourth and fifth can be seen primarily in Yup’ik, and a sixth in Kalaallisut. All are marked by derivational suffixes in verbs. All usually add a core argument, which is cast as a full-fledged Absolutive and behaves like other transitive Absolutes syntactically. Since clauses in these languages can have no more than two core arguments, the addition of this argument results in the displacement of an original transitive Absolutive from the core. The displaced participant may be expressed as an oblique or not mentioned at all. There are no ‘double-object’ constructions. Verb bases formed with the applicative suffixes show the same inflectional possibilities as other verb bases. All show some allo-

morphy conditioned primarily by phonological context, but the conditions vary somewhat across the languages.

3.1 General applicative *-utə-

All of the languages in the family share an applicative construction formed with a derivational suffix reconstructed by Fortescue, Jacobson, and Kaplan as *-utə- ‘do with or for’ (2012: 475–478). It is quite productive in all of the languages and shows a range of meanings.

The Yup’ik applicative suffix *-ute-* triggers certain changes in preceding sounds. The initial *u* is lost after a full vowel *i*, *a*, or *u*, and the final *e* does not appear before any other vowel. This applicative can add a recipient.

- (17) Yup’ik *-ute-* with recipient (Elizabeth Ali, speaker)

Qanrucarturluki

qaner-ute-yartur-lu-ki

speak-APPL-go.in.order.to-SUBORD-R>3PL

‘He went to **tell**’

taukut kipusviliurtet,

tauku-t kipute-vik-liur-ta-t

that-ABS.PL buy-place-work.with-AGT.NMLZ-ABS.PL

‘**the storekeepers**’

assiitelriamek-gguq, tunelliniit.

assiite-lria-mek=gguq tune-llini-ke-iit

be.bad-NMLZ-ABL.SG=HRS sell-apparently-TR.PRTCP-3PL>3SG

‘that they had sold him a bad one.’

It can add a referent affected by natural phenomena.

- (18) Yup’ik *-ute-* as malefactive (Jacobson 2012: 881)

Aniullugutai.

aniu-llug-ut-a-i

snow.on.ground-have.bad-APPL-TR.IND-3SG>3PL

‘Soft melting snow came **upon them**.’

(They encountered soft snow conditions while traveling.)

It can add a beneficiary.

- (19) Yup'ik *-ute-* as benefactive (Elena Charles, speaker)

Taukuk-llu,
tauku-k=llu
those-DU=also
'And those two'

<i>Tommy-m</i>	<i>aaniin</i> ,
<i>Tommy-m</i>	<i>aana-in</i>
NAME-3SG>3SG.GEN.SG	mother-3SG>3SG.ERG
'and Tommy's mother'	

kalukaulluta.
kalukar-ute-lu-ta
 have.feast-**APPL**-SUBORD-3R>1PL
 ‘made a feast **for us.**’

It can add a companion. This construction is frequently used where a co-causative might be used in some other languages.

- (20) Yup'ik *-ute-* as comitative (Elizabeth Ali, speaker)

Elliin *ayaulhua.*
ellii-n *ayag-ute-lu-a*
 3SG-ERG.SG go-APPL-SUBORD-3R>1SG
 ‘He went **with me**.’ = ‘He took me along.’

It can add a reason.

- (21) Yup'ik *-ute-* with reason (Jacobson 2012: 66)

Aaryuutaa.
aaryug-ute-a-a
 be.wary-**APPL**-TR.IND-3SG>3SG
 ‘S/he feels concerned **on account of** what might happen to him/her.’

This applicative is added to intransitive-only bases, transitive-only bases, agentive ambitransitive bases, and patientive ambitransitive bases.

- (22) Yup'ik derivational possibilities (Jacobson 2012)

Intransitive

<i>arenqig-</i>	'be satisfactory, feasible, comfortable'
<i>arenqig-tuq</i>	'it is satisfactory'
<i>arenqi-ut-aa</i>	'it is satisfactory to him/her'

Transitive

<i>piqer-</i>	‘strike, hit, whack, whip’
<i>pigr-aa</i>	‘s/he whacked it’
<i>pigr-ut-aa</i>	‘s/he hit it against something’

Agentive ambitransitive

<i>ekrar-</i>	‘cross over’
<i>ekrar-tuq</i>	‘s/he is crossing over’
<i>ekrar-aa</i>	‘s/he is crossing over it’
<i>ekra-ut-aa</i>	‘s/he going across with it’ = ‘taking it across’

Patientive ambitransitive

<i>arulair-</i>	‘stop moving’
<i>arulair-tuq</i>	‘it stopped’
<i>arulairt-aa</i>	‘s/he stopped it’
<i>arulair-ut-aa</i>	‘s/he stopped for him/her’

When the applicative is added to a transitive base, the added argument usually displaces the original Absolutive. (In the Subordinative mood, only the Absolutive is overtly marked, but case marking on lexical nominals is as in other moods.) As noted, the Absolutives of some basic transitives, like *angussaag-* ‘hunt’ correspond to direct objects in languages like English. The Absolutives of other basic transitives, like *igaq-* ‘mark, write’, correspond to English indirect objects: recipients, goals, beneficiaries, etc. The applicative *-ute-* affects these two types of transitive bases in opposite ways. To the first it can add what would be a recipient, goal, beneficiary, companion, etc., and eliminate the original Absolutive from the core: ‘s/he is hunting (it) **for** him/her’. To the second, it can add a patient/theme and eliminate a recipient, goal, beneficiary, companion, etc.: ‘s/he is writing **it**’ (to him/her).’ The demoted referent can still be expressed as an oblique, inflected for case according to its semantic role.

(23) Yup’ik argument configurations (Jacobson 2012)

Agentive ambitransitive

<i>angussaag-</i>	‘hunt, try to catch game’
<i>angussaag-tuq</i>	‘s/he is hunting’
<i>angussaag-aa</i>	‘s/he is hunting it’
<i>angussaaq-ut-aa</i>	‘s/he is hunting for him/her, providing for him/her’

Agentive ambitransitive

<i>igaq-</i>	‘mark, write’
<i>igar-tuq</i>	‘s/he is writing’
<i>igar-aa</i>	‘s/he is writing to him/her’
<i>iga-ut-aa</i>	‘s/he is writing it ’

Since applicatives add an argument, they form transitive verb bases. With the verb *agu-* ‘go over’, the general applicative *-ute-* adds comitative meaning ‘go over with’ = ‘take over’. The added argument is the person or thing taken over, as in (24).

(24) Yup’ik comitative applicative (George Charles, speaker)

Kuigkun agukutelliniki.

kuik-kun agu-ute-llini-ke-ii

river-VIALIS go.over-APPL-apparently-**TR.PRTCP-3SG>3SG**

‘He took **him** across the river.’

The root *agu-* is an agentive ambitransitive. It can be inflected as an intransitive with just an agent, as in (25b) ‘s/he went over’, or inflected as a transitive, as in (25c) with two core arguments ‘s/he went over it’ (or more idiomatically ‘it covered it’, as snow covering a mountain). The applicative adds a new absolutive argument, the person or thing taken, as in (24) above and (25d) below. But only definite referents can be transitive Absolutives. If the person or thing taken over is indefinite, the verb is simply inflected as intransitive as in (25e). The indefinite participant, if mentioned, is oblique.

(25) Yup’ik *age-* ‘go over’ (Jacobson 2012: 69)

- | | | | |
|----|------------------|-------------------------------------|------------------------------------|
| a. | <i>age-</i> | ‘go over’ | Basic agentive ambitransitive root |
| b. | <i>ag’-u-q</i> | ‘s/he or it went over’ | Basic intransitive |
| c. | <i>ag-a-a</i> | ‘s/he went over it, ‘it covered it’ | Basic transitive |
| d. | <i>ag-ut-a-a</i> | ‘s/he took him/her/it over’ | Transitive applicative |
| e. | <i>ag-ut-u-q</i> | ‘s/he took something over’ | Intransitive applicative |

Constructions like that in (25e) are much like antipassives. They indicate that there is a second participant, but they eliminate that participant from the core. They differ from prototypical antipassives in that there is no antipassive suffix.

This construction has served as the foundation for an extension of sequences of applicatives and intransitive inflection to antipassive markers in certain contexts. One involves transitive-only bases. The root *tegu-* ‘take, pick up’ can be inflected as a transitive, as in (26b), but it cannot be inflected directly as an intransitive. An antipassive-like construction can be formed, however, by means of the applicative suffix *-ute-* and intransitive inflection, as in (26c). The suffix does not actually add any applicative meaning.

(26) Yup’ik basic transitive (Jacobson 2012: 627)

- | | | | |
|----|-------------------|-----------------------|-------------------------------|
| a. | <i>tegu-</i> | ‘take, pick up’ | Basic transitive-only root |
| b. | <i>tegu-a</i> | ‘s/he took it’ | Basic transitive verb |
| c. | <i>teg-ut-u-q</i> | ‘s/he took something’ | Antipassive-like intransitive |

A second context involves patientive ambitransitive bases, those which occur inflected as both intransitive and transitives, but whose sole intransitive argument corresponds to the absolutive of the transitive. An example is the root *nalke*- ‘find’.

(27) Yup’ik patientive ambitransitive: *nalke*- ‘find’

- a. *Nalkaa.* Transitive
nalke-a-a
 find-TR.IND-3SG>3SG
 ‘S/he found **it**.’
- b. *Nalkuq.* Intransitive
nalke-u-q
 be.found-INTR.IND-3SG
 ‘**It** has been found.’

Simply inflecting the transitive base as intransitive will not produce the counterpart of an antipassive ‘s/he found an X, found something’. Here, too, a sequence consisting of the applicative *-ute-* and intransitive inflection is exploited for this function. The suffix adds no applicative meaning. The verb ‘find’ in (28) is formally intransitive, with just one argument, the agentive finder, but it is clear that something was found, here the indefinite rhubarb.

(28) Yup’ik antipassive (George Charles, speaker)

- Tauna cali yuaryaaqelria*
tauna cali yuar-yaaqe-lria
 that.one again search-in.vain-INTR.PRTP.3SG
 ‘He looked once again’
- nalkuteksaunani tamakunek cuassaa~~nek~~.*
nalke-ute-ksaite-lu-ni tamaku-~~nek~~ cuassaaq-~~nek~~
 find-APPL-not.yet-SUBORD-3R.SG those-ABL.PL rhubarb-ABL.PL
 ‘but didn’t find **any** wild rhubarb.’

Applicatives formed with the suffix *-ute-* can also be inflected as intransitives with dual or plural arguments to indicate reciprocal or joint activity, as in (29) and (30).

(29) Yup’ik intransitive reciprocal applicative *-ute-* (George Charles, speaker)

- Tua-i-llu-gguq tuakenirnek, tauna tulukaruq,*
tuai=llu-gguq tuakenir-nek tauna tulukaruq
 so.then=and=HRS there-ABL.PL that.ABS.SG raven.ABS.SG
 ‘And from that time on, that Raven,’
- tauna-llu angun ciuqliq,*
 that=and man.ABS.SG first.one.ABS.SG
 ‘and that first man’

qalarulutek *pillinilriik.*
qalarte-ute-lu-tek *pi-llini-lri-ik*
 talk-**APPL**-SUBORD-2DU do-apparently-INTR.PRTCP-3DU
 ‘would talk **to each other**.’

- (30) Yup’ik intransitive joint applicative *-ute-* (Jacobson 1995: 160)
Aquitut.
aqui-ute-tu-t
 play-**APPL**-INTR.IND-3PL
 ‘They are playing **together**.’

The cognate applicative in Kalaallisut is *-ut(i)-*. The initial *u* shifts to *a* following another *a* and unpredictably following certain consonants. Before an indicative mood suffix, the final *i* disappears and the *t* assimilates to the following stop. It functions much like its Yup’ik cognate.

- (31) Kalaallisut applicative in *-ut(i)-* (Carl Christian Olsen, speaker)
Piniartup *pisani* *qujaruppa.*
piniartu-p *pisa-ni* *qujar-ut-pa-a*
 hunter-ERG catch-3R>3SG.ABS thank-**APPL**-TR.IND-3SG>3SG
 ‘The hunter is thankful **for** his catch.’

As in Yup’ik, this applicative is used as a comitative with verbs of motion where causatives might be used in other languages.

- (32) Kalaallisut applicative *-ut(i)-* (Carl Christian Olsen, speaker)
Aavartup *tuttutani*
aavartu-p *tuttu-t-taq-ni*
 caribou.hunter-ERG caribou-catch-PASS.PRTCP-3R>3SG.ABS
kuukkut *ikaaruppa.*
kuu-kkut *ikaar-ut-pa-a*
 river-VIA cross-**APPL**-TR.IND-3SG>3SG
 ‘The caribou hunter crossed **with** his caught caribou through the river.’
 = ‘brought his caribou over through the river.’

- (33) Kalaallisut applicative *-ut(i)* (Carl Christian Olsen)
 Natural phenomena
apivoq ‘there is snow on it, it is covered with snow’
appuppaa ‘there also falls snow **on** it’
 Instrumental
eqqorpaa ‘s/he hits him or it’
equuppaa ‘s/he hits **with** it’

Also as in Yup'ik, this suffix occurs with intransitives, transitives, agentive ambitransitives, and patientive ambitransitive bases.

(34) Kalaallisut applicatives in *-uti-* (Schultz-Lorentzen 1927)

Intransitive

assorpoq 's/he rows, drives against the wind, has the wind against him'

assoquppaa 's/he goes to windward **of** it'

Intransitive

imarorpoq 'it becomes open water, the ice breaks up'

imaruuppaa 'it becomes open water **for** him/her'

Transitive

akilerpaa 's/he pays him or it'

akili-up-paa 's/he pays **for** him or **on his behalf**, pays his debt'

Agentive ambitransitive

erlippoq 's/he is stingy, chary'

erligaa 's/he is stingy with it'

erliguuppaa 's/he is stingy **towards** him'

Patientive ambitransitive

immerpoq 'it is filled'

immerpaa 's/he fills it'

immiuppaa 's/he fills or empties it **into** something'

Here, too, bases formed with this applicative may be inflected as intransitives with a plural pronominal suffix and used to signal reciprocal or joint activity.

(35) Kalaallisut reciprocal (Schultz-Lorentzen 1927: 7)

a. *Assortorpaa.*

assortor-pa-a

fight-TR.IND-3SG>3SG

'S/he contradicts him, resists him, quarrels with him.'

b. *Assortuupput.*

assortor-ut-pu-t

fight-APPL-INTR.IND-3PL

'They fight **with each other**, they contradict **each other**, they quarrel.'

(36) Kalaallisut joint activity (Schultz-Lorentzen 1927: 209, Fortescue 1997: 165)

a. *Kaffisorpoq.*

kaffi-sor-pu-q

coffee-consume-INTR.IND-3SG

'S/he drank coffee.'

- b. *Kaffisuupput.*
kaffi-sor-ut-pu-t
 coffee-consume-APPL-INTR.IND-3PL
 ‘They drank coffee **together**.’

A detailed discussion of the Kalaallisut *-ut-* is in Woodbury (1977).

Cognates of this applicative suffix in other Inuit-Yupik languages listed by Fortescue, Jacobson, and Kaplan (2010: 475–476) include Eastern Canadian Inuit *-uti-* ‘do with or for, in a group, reciprocally’; Western Canadian Inuit *-(yy)uti-* ‘do with or for, reciprocally’; North Alaskan Inuit *-uti-* ‘do with, for, reciprocally’; Seward Peninsula Inuit *-uti-* ‘do with, for’; Sireniki *-əta-* ‘do with’; Central Siberian Yupik *-utə-* ‘do with, for, reciprocally’; Naukanski *-utə-* ‘do for’; and Alutiiq *-utə-* ‘do with, for, reciprocally’.

The Unangan cognate has the basic forms *-usa-/asa-*. The alternation between the two forms is not fully predictable. It functions as a goal, instrumental, comitative, and reason applicative.

(37) Unangan *-usa-/asa-* (Bergsland 1994: 488–489)

- a. Goal
 - aqi-* ‘to flee, run away, get away’
 - aqi-isa-* ‘to flee **toward**’
- b. Instrumental
 - chuhni-* ‘to stab’
 - chuhn-usa-* ‘to stab **with**’
- c. Comitative
 - aygag-* ‘to walk’
 - aygag-usa-* ‘to walk **with**’
 - kim-* ‘to descend’
 - kim-usa-* ‘to go down **with**, take down’
- d. Reason
 - qida-* ‘to cry’
 - qida-asa-* ‘to cry **because of**’
- e. *nana-* ‘to ache’
 - nana-sa-* ‘to cause pain’ ([body part] to be painful **because of**)
- f. *susi-* ‘to hurry up’
 - sus-usa-* ‘to worry **about**’ (‘to be hurried because of’)

Like its cognates in other languages, it is added to both intransitive and transitive bases.

(38) Unangan applicative *-usa-/asa-* (Bergsland 1994: 488–489)

Intransitive

- tanaanu-* ‘to approach land’
- tanaan-usa-* ‘to take ashore’ (‘approach land **with**’)

Transitive

- a. *ch̥uuḡ-* 'to wash'
atxaḡ-asa 'to wash **with**'
- b. *taya-* 'to visit the market, shop', 'to buy'
taya-asa- 'to buy **with**'
- c. *aluḡ-* 'to write, write on'
aluḡ-asa 'to write **with**'

As in the other languages, when it is added to an intransitive base, it produces a transitive.

- (39) Unangan intransitive → transitive (Bergsland 1994: 488)

Tanaḡ aqiisanaḡ.
tana-ḡ aqi-usa-na-ḡ
 land-ABS flee-**APPL**-INTR.REM-3SG
 'He fled **toward** the shore.'

When it is added to most transitive bases, it displaces the second argument. If the displaced argument is a lexical nominal, it is inflected as a dative.

- (40) Unangan transitive → transitive (Schultz-Lorentzen 1997: 162)

Chahmamaan uluḡ ch̥adusakuq.
chahma-maan ulu-ḡ ch̥at-usa-ku-q
 dish-**DAT** meat-ABS fill-**APPL**-PRS-3SG
 'I filled the dish **with** meat.'

3.2 Applicative *-utəkə-

A second applicative occurs in just the Inuit-Yupik branch of the family, reconstructed by Fortescue, Jacobson, and Kaplan (2010: 476) as 'have as means or reason for doing'.

The Yup'ik form behaves phonologically like the *-ute-* applicative. It can trigger changes in preceding sounds, the initial *u* is lost after a full vowel *i*, *a*, or *u*, and the final *e* does not appear before any other vowel.

- (41) Yup'ik applicative *-uteke-* 'on account of' (Jacobson 2012: 883)

Angniutekaa qetunrami kassuutellra.
angni-uteke-a-a qetunraq-mi kassuute-llreq-a
 be.happy-**APPL**-TR.IND-3SG>3SG son-3R.SG>3GEN marry-NMLZ-3SG>3SG.ABS.SG
 'She is rejoicing **over** son's wedding.'

(42) Yup'ik applicative *-uteke-* 'on account of' (Jacobson 2012)

- a. *quyauq* 's/he is thankful, glad'
- quya-tek-aa* 's/he is thankful **for it**'
- b. *ngel'artuq* 's/he is laughing'
- ngela-utek-aa* 's/he is laughing **at** him/her'
- c. *qalriaguq* 'it cried out'
- qalria-tek-aa* 's/he is begging **for it**'
- d. *aptuq* 's/he asked'
- aptaa* 's/he asked him/her'
- apy-utek-aa* 's/he asked **about it**'

It is attached to both intransitive and transitive bases.

(43) Yup'ik applicative *-uteke-* 'on account of' (Jacobson 2012)

Intransitive

- a. *qia-tuq* 's/he is crying'
- qia-tek-aa* 's/he is crying **on account of it**'
- b. *nag-tuq* 'it got snagged'
- nag-utek-aa* 's/he is being held back **by it**'

Transitive

- qalart-uq* 's/he is talking'
- qalart-ua* 's/he is talking to him/her'
- qalar-utk-aa* 's/he is talking **about it**'

Some of the same bases appear with both *-ute-* and *-uteke-* applicatives.

(44) Yup'ik applicatives based on *qaner-* 'to speak, converse' (Jacobson 2012)

- qanert-uq* 's/he is speaking'
- qaner-aa* 's/he said it'
- qanr-ut-aa* 's/he said **to** him/her, told him/her'
- qanr-utk-aa* 's/he is speaking **about it**'

The Kalaallisut cognate has the basic form *-utig(i)-*, with phonological adjustments similar to those for *-ut(i)-*. In combination with a following indicative suffix there is contraction: *-utigivaa* > *-utigaa*. This applicative can add an instrument, means, cause, or reason to the set of arguments.

(45) Kalaallisut applicative *-utig(i)-* (Carl Christian Olsen, speaker)

- | | | |
|-----------------------------|--------------------------|----------------|
| <i>Illuliortup</i> | <i>kiffiutissat</i> | <i>nutaat</i> |
| <i>illu-lior-tu-p</i> | <i>kiff-utiss-at</i> | <i>nuta-at</i> |
| house-build-AGT.NMLZ-ERG.SG | insulate-INS.NMLZ-PL.ABS | new-PL.ABS |

kiffiutigai.

kiff-utigi-va-i

insulate-**APPL**-TR.IND-3SG>3PL

‘The builder insulated it **with** new insulation.’

- (46) Kalaallisut applicative -*utig(i)*- (Carl Christian Olsen, speaker)

Angutip tusilarnini

innarluutigaa.

anguti-p tusiliar-niq-ni

innarlu-utigi-va-a

man-ERG be.deaf-NMLZ-3R>3SG.ABS.SG be.handicapped-**APPL**-TR.IND-3SG>3SG

‘The man is handicapped **by** his deafness.’

- (47) Kalaallisut applicative -*utig(i)*- (Carl Christian Olsen, speaker)

Meeqqap innarluteqarnini

ittoorutigaa.

meeqqa-p innarlu-t-qar-ni-ni

ittoor-utigi-va-a

child-ERG handicap-NMLZ-have-NMLZ-3R>3SG.ABS.SG be.shy-**APPL**-TR.IND.3SG>3SG

‘The child is shy **because of** his handicap.’

- (48) Kalaallisut applicative -*utig(i)*- (Carl Christian Olsen, speaker)

Inuup sallusorineqarnini

innu-p sallu-sori-neqar-ni-ni

person-ERG.SG lie-think.that-PASS-NMLZ-3R>3SG.ABS.SG

mamiasuutigaa.

mamiasu-utigi-va-a

offended-**APPL**-TR.INDIC-3SG>3SG

‘The person was insulted **at** his being thought a liar.’

- (49) Kalaallisut applicative -*utig(i)*- (Carl Christian Olsen, speaker)

Arnap uimi

toquneraa

arna-p ui-mi

toqu-ner-a

woman-ERG.SG husband-3R>3GEN.SG die-NMLZ-3SG>3SG.ABS.SG

aliasuutigaa.

aliasu-utigi-va-a

mourn-**APPL**-TR.IND-3SG.>3SG

‘The woman is grieving **over** her husband’s death.’

A form -*ssutiki*- has a similar range of meanings, most often adding a means, reason, or cause.

- (50) Kalaallisut applicative -*ssutig(i)*- (Schultz-Lorentzen 1927)

a. *ilungersuavoq* ‘s/he is anxious’

ilungersua-ssutig-aa ‘s/he is anxious **about** it’

- | | | |
|----|--------------------------|--|
| b. | <i>pakitsivoq</i> | 's/he is ashamed' |
| | <i>pakatsi-ssutig-aa</i> | 's/he is ashamed of it' |
| c. | <i>pisuuvoq</i> | 's/he is rich' |
| | <i>pisu-ussutig-aa</i> | 's/he has become rich by it' |
| d. | <i>puuppoq</i> | 's/he is confused, not quite right in the head' |
| | <i>puu-ssutig-aa</i> | 's/he gets confused by it' |
| e. | <i>nangaavoq</i> | 's/he is doubtful, does not know what to decide' |
| | <i>nanga-ssutig-aa</i> | 's/he is in doubt as to it' |
| f. | <i>siooravoq</i> | 's/he is fearful' |
| | <i>siioragaa</i> | 's/he is afraid of him or it' |
| | <i>sioora-ssutig-aa</i> | 's/he is afraid for that reason ' |

Schultz-Lorentzen lists alternative forms, with and without the *ss*, among them *nakim-matigaa* / *nakimassutigaa* 's/he is in doubt **about** it', and *naqquutigaa* / *naqqissutigaa* 's/he corrects, confirms something by it, gives evidence about him or it, corroborates something for that reason, was revived by it' (1927: 361). Fortescue (1997: 91) observes that the form with *ss* is more productive, and that there are some lexicalized distinctions, such as *allaatigaa* 'he wrote about (or with) it' and *allassutigaa* 'he wrote for that reason'.

This applicative, too, is added to bases of various transitivity types.

(51) Kalaallisut applicative *-utig(i)-* (Schultz-Lorentzen 1927)

Intransitive

- | | |
|-------------------------|------------------------------|
| <i>isumalior-poq</i> | 's/he reflects' |
| <i>isumaliu-utig-aa</i> | 's/he reflects on it' |

Agentive ambitransitive

- | | |
|-----------------------|----------------------------------|
| <i>qujavoq</i> | 's/he says thanks' |
| <i>qujavaa</i> | 's/he says thanks for him' |
| <i>quja-ssutig-aa</i> | 's/he says thanks for it' |

Patientive ambitransitive

- | | |
|--------------------------|---|
| <i>kalerrippoq</i> | 's/he gets a hint of something, is scared' |
| <i>kalerriipaa</i> | 's/he gives him a hint of something, scares it (an animal)' |
| <i>kalerri-ssutig-aa</i> | 's/he gets a hint of something through it, is scared by it' |

There are also multiple applicative constructions built on the same base.

(52) Kalaallisut multiple applicatives (Schultz-Lorentzen 1927)

- | | |
|-----------------------|---|
| <i>isussorpoq</i> | 's/he whispers' |
| <i>isussorpaa</i> | 's/he whispers it' |
| <i>isussu-up-aa</i> | 's/he whispers something to him/her' |
| <i>isussu-utig-aa</i> | 's/he whispers something about him/it' |

Fortescue, Jacobson, and Kaplan (2010: 476) list cognates in other Inuit-Yupik languages: Eastern Canadian Inuit *-utiŷi-*; North Alaskan Inuit *-utiŷi-* ‘have as means or reason for -ing’; Seward Peninsula Inuit *-utiŷi-* ‘have as means or reason for -ing’; Central Siberian Yupik *-utkə-* ‘on account of’; and Alutiiq *-utəkə-* ‘concerning, on account of’.

The source of this suffix can still be discerned (Jacobson 1995: 297). A number of roots in all of the languages have noun and verb counterparts, such as the Yup’ik *qalleq* ‘rust’, *qaller-* ‘to rust, be rusty’ and *qanuk* ‘snowflake’, *qanug-* ‘to snow’. (Velar and uvular stops and fricatives alternate according to context. Only stops can occur word-finally.) In some cases, it is clear that the noun came into the language first, in others it is clear that the verb came first, and in still others, it is difficult to know. A count of bases in the Jacobson 2012 dictionary showed that 12% had doublets (Mithun 2017.) Similarly, a number of suffixes have doublets, one deriving nouns, another deriving verbs. The applicative **-utə-* has a nominalizing counterpart which derives instrumental and reason nominals, with varying productivity across the languages. Describing Yup’ik, Jacobson (1995: 297) notes that this suffix is no longer productive as a nominalizer, but it is still evident in many words. Its word-final form in Yup’ik is *-un*, as in the noun *cav-un* ‘oar’, derived from the verb root *cave-* ‘to row’; in the noun *ipu-un* ‘ladle’ from the verb root *ipug-* ‘to scoop’, in the noun *anguar-un* ‘paddle, propeller blade’ from the verb root *anguar-* ‘to paddle’, and more. The fuller form appears word-medially, as in *ciki-un* ‘gift’, *ciki-ute-kaq* give-NMLZ-FUT = ‘future gift’. Kalaallisut has a cognate instrumental nominalizer *-uti-* with word-final form *-ut*, as in the noun *angu-ut* ‘paddle’ from the verb root *anguar-* ‘to paddle’, in *atungi-ut* ‘sewing needle, for soles’ from the verb *atunngi-* ‘prepare sole skins’; and in the noun *ilisarnaq-ut* ‘mark, emblem’, from the verb *ilisarnar-* ‘be easily known, recognizable’ (Schultz-Lorentzen 1927: 56, 83, 135). The Unangan cognate has a corresponding instrumental/locative/manner nominalizer *-usa/-asa-*, as in the noun *ayxa-asi-* ‘boat’ derived from the verb *ayxa-* ‘to go by sea’; the noun *taanga-asi-* ‘place for drinking’ from the verb *taanga-* ‘to drink’, and the noun *hag-usi-* ‘growth, stature’ from the verb *hag-* ‘to grow up’ (Bergsland 1997: 109). The Proto-Inuit-Yupik applicative **-utəkə-* is an amalgamation of this nominalizer and the Proto-Inuit-Yupik verbalizing derivational suffix **-kə-* ‘have as one’s’.

- (53) Yup’ik suffix *-ke-* ‘have as’ (Elena Charles, speaker)

Ataakenritcaaqaat.

ataa-ke-nrite-yaaqe-a-at

father-**have.as**-NEG-actually-TR.IND-3PL>3SG

‘They do not actually **have** him as their father.’

= ‘He is not actually their natural father.’

3.3 Proto-Inuit-Yupik applicative *-*ḍvikə*-

This third suffix functions primarily as a locative applicative, adding spatial specification to the set of core arguments. The Yup'ik cognate *-vike-* can affect preceding sounds, and the final *e* does not appear before vowels.

- (54) Yup'ik applicative *-vike-* (Elena Charles, speaker)

<i>Tamaai-llu,</i>	<i>anguyautellratni,</i>	<i>anguyiit,</i>
<i>tamaai=llu</i>	<i>anguyag-ute-tur-llru-atni</i>	<i>anguyak-it</i>
back.then=too	fight-APPL-repeatedly-PST.CONTEMP-3PL	warrior-ABS.PL
'And at that time, when they used to war with each other, the warriors,'		
<i>iirvikaqluki</i>	<i>aglenrraraat.</i>	
<i>iir-vike-aqe-lu-ki</i>	<i>aglenrraq-aat</i>	
hide-LOC.APPL-HAB-SUBORD-3PL	one.having.first.menstruation-3PL>3SG.ABS.PL	
'they would hide in the first-menstruating women's huts.'		

Some additional formations are in (55).

- (55) Yup'ik applicative *-vike-* (Jacobson 2012: 900, 88, 131, 205, 256, 305, 433)

- a. *aqume-* 'to sit down'
- aqum-vik-aa* 's/he sat down **on** it'
- b. *kuve-* 'to spill'
- kuve-vik-aa* 's/he spilled something **on** him/her'
- c. *alair-* 'to appear, come into view, come on the scene'
- alair-vik-aa* 'it came **into his/her view**'
- d. *angllur-* 'to dive under water, submerge, be baptized'
- angllur-vik-aa* 's/he dived **after** him/her'
- e. *ciktaar-* 'to bow repeatedly, worship by bowing, pay one's respects'
- ciktaar-vik-aa* 's/he is worshipping it, bowing down **before** it'
- f. *ellngar-* 'to leak liquids from a container, to drip'
- ellngar-vik-aa* 'it is leaking liquid **out of** it'
- g. *iqu-* 'to fall over from an upright position'
- iqu-vik-aa* 'it fell **on** it'
- h. *nau-* 'to grow'
- nau-vik-aa* 's/he descends **from** him/her, it is growing **on** it (plant, cancer)'

The Kalaallisut cognate has the basic shape *-figi-*. It interacts with the preceding phonological context, and in combination with certain inflectional endings, it is usually contracted. With the Indicative mood suffix *-va-* and the transitive pronominal suffix 3SG>3SG *-a* the result is *-figi-va-a* > *-figaa*.

- (56) Kalaallisut applicative *-figi-* (Carl Christian Olsen, speaker)
Umiarsuup nunaqarfik akunniffigaa.
umiarsu-up nuna-qar-fik akunni-figi-va-a
 ship-ERG land-have-LOC.NMLZ.ABS.SG spend.time-**APPL**-TR.IND-3SG>3SG
 ‘The ship spent a short time **in** the village.’

- (57) Kalaallisut applicative *-figi-* (Carl Christian Olsen, speaker)
Nunaqqatini perulluliormata
nuna-qati-ni perullulior-mata
 village-fellow-3RSG>3PL.ABS do.violence-CONSEQ.3PL
 ‘Because his fellow villagers did something violent,’

ilaquuttani qimaaffigai.
ilaqut-ani qimaa-figi-va-a
 family-3SG>3SG.ABS leave-**APPL**-TR.IND-3SG>3SG
 ‘he fled **to** his family.’

- (58) Kalaallisut applicative *-figi-* (Carl Christian Olsen, speaker)
Angutip arnaq ajortuliffigaa.
anguti-p arnaq ajortuli-figi-va-a
 man-ERG.SG woman.ABS.SG do.harm-**APPL**-TR.IND-3SG>3SG
 ‘The man did something sinful **toward** the woman.’

Fortescue, Jacobson, and Kaplan reconstruct a Proto-Inuit-Yupik form **δvikə-* ‘have as place or time of doing’ (2010: 440), with cognates Eastern Canadian Inuit +*viyi-*; Western Canadian Inuit +*viyi-*; North Alaskan Inuit +*viyi-*; Central Siberian Yupik +*vikə-*; and Alutiiq +*wikə-* ‘have as place or time of -ing or person toward whom one is -ing’. The source of this suffix is traceable to a development much like that of the previous one. There is a pervasive locative nominalizer reconstructed by Fortescue, Jacobson, and Kaplan as Proto-Inuit-Yupik **əviy-* or **-viy-* (2010:440). This suffix can be seen in (59) and (60).

- (59) Yup’ik locative nominalizer (Elizabeth Ali, speaker)
Ellvia muiraan, . . .
elli-vik-aa muir-a-an
 put-**LOC.NMLZ**-3SG>3SG.ABS.SG become.full-CONSEQ-3SG
 ‘Because his container was full, . . .’

 (60) Kalaallisut locative nominalizer (Carl Christian Olsen, speaker)
Akiminni qaloortarfeqartarput.
aki-minni qaloor-tar-fik-qartar-pu-t
 place.on.other.side-3R>3.LOC scoop-HAB-**LOC.NMLZ**-have-INTR.IND-3PL
 ‘They have scooping places on the other side of their village.’

The locative applicative was formed by fusion of this locative nominalizer with the same suffix **-kə-* ‘have as’ seen in the reason applicative **-utəkə-* in the previous section.

This applicative also appears with some of the same bases as other applicatives.

(61) Yup’ik multiple applicatives

- quyauq* ‘s/he is thankful, glad’
quya-tek-aa ‘s/he is thankful or glad **because** of it’
quya-vik-aa ‘s/he is thankful **to** him/her’

(62) Kalaallisut multiple applicatives (Schultz-Lorentzen 1927: 263)

- a. *kanngusup-poq* ‘s/he is ashamed’
kanngusu-uti-gaa ‘s/he is ashamed **of** it’
kanngusu-ffi-gaa ‘s/he is ashamed **before** him/her’
 b. *isumalluar-poq* ‘s/he is confident’
isumallu-utig-aa ‘s/he feels confident **because** of it’
isumalluar-fig-aa ‘s/he places confidence **in** him/her’

3.4 Yup’ik adversative *-(g)i-*

Yup’ik contains what at first looks like a straightforward adversative applicative, a suffix *-(g)i-* which derives transitive verbs whose Absolutive argument is a person adversely affected. The suffix triggers certain changes in a preceding base, and the *g* appears after bases ending in two vowels. The construction is described in rich detail by Miyaoka (2012: 1096–1109).

(63) Yup’ik adversative *-(g)i-* (Miyaoka 2012: 1100)

- Ner-i-a-nga* *neqe-m* *neqca-mnek*.
 eat-**APPL**-TR.IND-3SG>1SG fish-ERG.SG bait-1SG>3PL.ABL
 ‘The fish ate my bait (**on** me).’

(64) Yup’ik adversative *-(g)i-* (Miyaoka 2012: 1103)

- Nulia-ni* *tamar-i-lu-ku* *tau-m* *nukalpiarta-m*.
 wife-3SG>3SG lose-**APPL**-SUBORD-R>3SG that-ERG.SG hunter-ERG.SG
 ‘That great hunter had his (own) wife disappear (**on** him).’

A closer look at the full range of constructions involving this suffix reveals a more complex picture. As noted, some verb bases in Yup’ik and related languages can be classified as intransitive only, transitive only, agentive ambitransitive, or patientive ambitransitive. These categories were laid out earlier in (11), repeated here.

(11) Verb transitivity categories (Jacobson 1995, 2012)

Intransitive only	<i>igt-u-q</i>	‘it is falling’
Transitive only	<i>tegu-a</i>	‘s/he is taking it ’
Ambitransitive		
Agentive	<i>kenir-tu-q</i>	‘s/he is cooking’
	<i>kenir-a-a</i>	‘s/he is cooking it ’
Patientive	<i>alleg-tu-q</i>	‘ it tore’
	<i>allg-a-a</i>	‘s/he tore it ’

The adversative construction in (63) is built on the agentive ambitransitive *nere-* ‘eat’, and that in (64) is built on the patientive ambitransitive *tamar-* ‘lose, be lost’.

Adversative constructions are also built on what are termed ‘elemental’ bases (Jacobson 2012: 27). These generally denote processes of nature and can be inflected as both intransitives and transitives, with only a subtle difference in meaning. Discussing the root *-ciku-* ‘freeze’, Jacobson describes the difference.

With the intransitive the emphasis is on result, while with the transitive the emphasis is on process. Thus, one would say *cikuuq* (intransitive) to suggest that freezing had occurred and was now probably complete, while one would say *cikua* (transitive) to suggest that freezing had occurred and perhaps was still occurring. There is no lexical subject. Since the difference is mainly one of emphasis and since various speakers might differ in their use of the intransitive or transitive of these verbs to describe the same situation, we translate the intransitive and transitive of elemental verbs the same way. (Jacobson 2012: 27)

Miyaoka provides the example in (65) of an adversative construction built on this verb ‘freeze’. The ‘net’ is oblique (Ablative).

(65) Yup’ik adversative *-(g)i-* (Miyaoka 2012: 1103)

<i>Ciku-i-ga-anga</i>	<i>kuvya-mnek.</i>
freeze- APPL -TR.IND-3SG>1SG	net-1SG>3SG.ABL.SG
‘My net froze on me.’ (Lit. ‘It froze my net on me.’)	

Such constructions are sometimes termed “transimpersonal” (Malchukov 2008).

Adversative constructions can also be built on intransitive-only bases, but there is a surprising shift in argument structure. The verbs are transitive and the experiencer, the person adversely affected, is coded as the Ergative.

(66) Yup’ik adversative *-(g)i-* (Miyaoka 2012: 1097)

<i>Kic-i-a-qa</i>	<i>maklaar-t-a-qa.</i>
sink- APPL -TR.IND-1SG>3SG	young.seal-catch-NMLZ-1SG>3SG.ABS.SG
‘The young bearded seal I caught sank on me (to my disadvantage).’	
(Lit. ‘I had my caught seal sink.’)	

This structure occurs both with intransitive-only bases whose single argument is a semantic patient, like ‘sink’ in (66) above and those whose single argument is a semantic agent, like ‘go out’ in (67) below.

- (67) Yup’ik adversative *-(g)i-* (Miyaoka 2012: 1098)

An-i-a-qa *kaviaq* *igti-nek*.
 go.out-APPL-TR.IND-1SG>3SG fox-ABS.SG den-3SG>3SG.ABL
 ‘I let the fox out **on** me from his hole.’
 = ‘The fox got out **on** (got away from) me from the hole.’

Furthermore, both of these applicative constructions can be inflected as intransitives, in which the only core argument is the experiencer, and the stimulus is oblique (Ablative).

- (68) Yup’ik adversative *-(g)i-* (Miyaoka 2012: 1098)

Kic-i-u-nga *maklaar-i-mnek*.
 sink-APPL-INTR.IND-1SG young.seal-catch-NMLZ-1SG>3SG.ABL
 ‘The young bearded seal I caught sank **on me** (to my disadvantage).’

- (69) Yup’ik adversative *-(g)i-* (Miyaoka 2012: 1099)

Kaviar-mek *an-i-u-q* *angun*.
 fox-ABL.SG go-APPL-INTR.IND-3SG man.ABS.SG
 ‘A fox got out (escaped) **on** the man.’

These constructions have meanings similar to what are termed adversative passives in other languages; the single core argument is the experiencer, and the stimulus is oblique. There is, however, no passive morphology on the verb.

It is likely that there is considerable variation across the Yup’ik dialects. Anthony Woodbury (p.c.) notes that this suffix is relatively rare in the Chevak dialect of Central Alaskan Yup’ik. The suffix is discussed further in Section 4.4.

3.5 Yup’ik *-ucite-* ‘in place of’

An additional applicative suffix has developed in Yup’ik which adds the meaning ‘in place of’ or ‘instead of’. The added Absolutive argument is the person replaced. It shows the same phonological alternations as the Yup’ik applicatives *-ute-* and *-uteke-* described earlier. Jacobson provides examples.

- (70) Yup'ik substitutive applicative (Jacobson 2012: 753)

Calicitaa.

cali-ucite-a-a

work-APPL-TR.IND-3SG>3SG

'S/he is working **in his/her place.**'

It is added to intransitive and transitive bases, both transitives with patient Absolutives and those with recipient/beneficiary/etc. Absolutives.

- (71) Yup'ik substitutive applicative on intransitive (Jacobson 2012: 380, 754)

a. *Maantuuq.*

'She, he, or it is here.'

b. *Maanlucitaa.*

maante-ucite-a-a

be.here-APPL-TR.IND-3SG>3SG

'S/he is here **instead of him/her.**'

- (72) Yup'ik substitutive applicative on agentive ambitransitive (Jacobson 2012: 531, 754)

a. *Qanertuuq.*

'S/he is speaking.'

b. *Qaneraa.*

'S/he said it.'

c. *Qanerucitaa.*

qaner-ucite-a-a

speak-APPL-TR.IND-3SG>3SG

'S/he spoke **in his/her place.**'

- (73) Yup'ik substitutive applicative on agentive ambitransitive (Jacobson 2012: 402, 754)

a. *Mertartuuq.*

'S/he is fetching water.'

b. *Mertaraa.*

'S/he is fetching water for him/her/it.'

c. *Mertaucitaa.*

mertar-ucite-a-a

fetch.water-APPL-TR.IND-3SG>3SG

'S/he is packing water **in place of him/her.**'

- (74) Yup'ik substitutive patientive ambitransitive (Jacobson 2012: 427, 754)

a. *Elitnaurtuuq.*

'S/he is attending school.'

b. *Elitnauraa.*

'S/he is teaching him/her' or 's/he is endeavoring to learn it.'

- c. *Elitnauristeci* *naulluungan*
elite-naur-i-sta-ci *naulluu-nga-n*
 teach-HAB-ANTIP-AGT.NMLZ-2PL>3SG be.ill-CONSEQ-2SG>3SG
 ‘Because your teacher is ill’
- elitnauriciciiqaqa.*
elite-naur-i-ucite-ciige-a-qa
 teach-HAB-ANTIP-**APPL**-FUT-TR.IND-1SG>3SG
 ‘I shall teach **in his place**.’

The same verb can serve as the base for a variety of applicatives.

- (75) Yup’ik applicatives (Jacobson 2012: 523, 753)

<i>Qalartuq.</i>	‘S/he is talking’		
<i>Qalarutaa.</i>	‘S/he is talking to him/her’	-ute-	‘to’
<i>Qalarutkaa.</i>	‘S/he is talking about it’	-uteke-	‘about’
<i>Qalarucitaa.</i>	‘S/he spoke in his/her place .’	-ucite-	‘in place of’

Miyaoka (2012: 1094) provides an account of the development of this applicative suffix as an amalgamation of the basic applicative suffix *-ute-*, the antipassive *-(g)i-*, and a second occurrence of the applicative *-ute-*.

3.6 Kalaallisut *-qatig(i)-* comitative applicative

A Kalaallisut suffix *-qatig(i)-* functions as a comitative applicative, adding a companion or associate.

- (76) Kalaallisut comitative applicative *-qatig(i)-* (Carl Christian Olsen, speaker)

<i>Aanaasup</i>	<i>ernuttani</i>	<i>asiaqatigigaa</i>
<i>aannas-up</i>	<i>ermutaq-ni</i>	<i>asia-qatigi-ga-a</i>
grandmother-ERG	grandchild-3R>3SG.ABS	go.out- APPL -TR.PRTCP-3SG>3SG
<i>ippassaq</i>	<i>takuara.</i>	
<i>ippassaq</i>	<i>taku-a-ra</i>	
yesterday	see-TR.IND-1SG>3SG	
‘Yesterday I saw the grandmother walking with her grandchild through nature.’		

Some additional examples are in (77).

- (77) Kalaallisut comitative applicative *-qatig(i)-* (Schultz-Lorentzen 1927)

a. <i>isummerpaa</i>	‘s/he gets an idea, makes a resolution’
<i>isumme-qatig-aa</i>	‘s/he agrees with him/her’

- b. *naguigaa* 's/he descends from him'
naggue-qatig-aa 's/he has a common origin with him, is of the same race as him/her'
- c. *sakkuarpaa* 's/he carries weapons against him, attacks him/her'
sakkuuaa-qatig-aa 's/he fights **with** him/her'

Such constructions, like applicatives seen earlier, can be inflected intransitively with a plural argument for actions carried out jointly.

- (78) Kalaallisut comitative applicative *-qatig(i)-* (Carl Christian Olsen, speaker)

Sakkutuut umiarsuarmiut ilaat
sakkutu-ut umiarsuar-miu-t ila-at
 soldier-PL ship-dweller-PL member-3PL>3PL
alloraqatigillutik ingerlasarput.
allorar-qatigi-llu-tik ingerlasar-pu-t
 march-**APPL**-INTR.CONTEMP-3R.PL move-INTR.IND-3PL
 'The sailors marched **together**.'

This suffix also occurs in similitive constructions.

- (79) Kalaallisut similitive (Schultz-Lorentzen 1927: 53)

Nukki angeqatigaa.
nuk-i angi-qatigi-va-a
 younger.brother-3R.SG>3SG.ABS.SG be.big-**APPL**-TR.IND-3SG>3SG
 'His younger brother is **as large as** he.'

The source of this suffix is clear. It is an amalgamation of a nominalizer suffix *-qat(i)-* 'fellow, companion' and the verbalizer suffix *-gi-* 'have as'. The first element is added to both noun and verb bases: *illu* 'house', *illo-qat* 'house-mate'; *innuvoq* 's/he lives, is born, is a man', *inoo-qat* 'he who lives with him, his contemporary'.

4 Morphological, syntactic, and discourse interactions

The applicatives described here are for the most part prototypical: they are derivational suffixes added to intransitive verb bases or transitive verb bases with either patient/theme or recipient/beneficiary/etc. Absolutes, to derive new transitive verb bases. They generally add a recipient, beneficiary, patient, theme, goal, instrument, companion, location, or reason to the set of core arguments, coded as an Absolute. If the tran-

sitive base had a semantic patient/theme Absolutive, the applicative can add a recipient/beneficiary/etc. If the transitive base had a recipient/beneficiary/etc. Absolutive, it can add a patient/theme. The addition of an applicative to a transitive base usually results in the displacement of an original transitive Absolutive.

The fact that the primary function of applicatives is to add a core argument raises questions concerning their relation to other patterns affecting argument structure. In 4.1 the issue of noun incorporation is discussed, in 4.2 the role of applicatives in nominalization, in 4.3 their interactions with passives, in 4.4 their interactions with antipassives, and in 4.5 their functions within larger discourse contexts.

4.1 Noun incorporation?

None of the Inuit-Yupik-Unangan languages have noun incorporation in the strict sense, that is, noun-verb compounding: verbs contain one and only one root. They do, however, have likely descendants of noun incorporation. Each of the languages has a sizeable set of derivational suffixes with relatively concrete meanings typical of verb roots in many other languages. Jacobson's 2012 Yup'ik dictionary includes such suffixes as *-ci-* 'buy', *-cugnite-* 'smell or taste like', *-cur-/ssur-* 'hunt, check', *-(ng)icag-* 'need, lack', *-(ng)ir-* 'deprive or be deprived of', 'remove from', *-(ng)ir(ar)te-* 'injure or be injured one's', *-(ng)ite-* 'lack', *-kegte-* 'be good X', *-kite-* 'give, supply with', *-ksagute-* 'acquire', *-li-* 'make', *-liqe-* 'catch a lot of', *-lir-* 'have a lot of', *-lliqe-* 'have poor', *-mirte-* 'act like', *miuuyaar-* 'speak the language or dialect of the residents of', *-nge-* 'acquire', *-ngqerr-* 'have', *-qu-* 'hunt with', *-rpagnite-* 'smell or taste strongly of', *-rapu-* 'be or have a large X', *-te-* 'catch (game animal)', *-te-* 'apply (liquid, etc.)', and *-tu-* 'be well endowed with' and more. These verbalizing suffixes never serve as the foundation of words on their own, but must always be attached to a nominal base.

(80) Yup'ik verbalizing suffix (Elena Charles, speaker)

<i>Iciugg'</i>	<i>Frankiq</i>	<i>angyangqellrul'</i>
<i>iciugg</i>	<i>Frankieq</i>	<i>angyaq-ngqerr-llru-lria</i>
remember	NAME.ABS.SG	boat-have-PAST-SUBORD-3SG
'Remember Frankie had a boat.'		

As in noun incorporation in other languages, the initial noun does not serve a specific semantic or grammatical role: it is not a syntactic argument. It simply narrows the scope of the verb in some useful way.

There is little significant interaction between the noun bases in such constructions and the applicatives. Applicative suffixes are simply applied to verb bases built on nouns plus verbalizing suffixes as they are to other verb bases, simplex or complex. The Yup'ik verbs in (81)–(82) are based on the noun *umugaq* 'mind'.

- (81) Yup'ik applicative (Jacobson 2012: 675)
Umyuarniurtuq.
umyaq-niur-tu-q
 mind-endure.difficulty.pertaining.to-INTR.IND-3SG
 'S/he is worried.'
- (82) Yup'ik applicative (Jacobson 2012: 675)
Umyuarniurutkaa.
umyuaq-niur-uteke-a-a
 mind-endure.difficulty.pertaining.to-**APPL**-TR.IND-3SG>3SG
 'S/he is worried **about** it.'

A sentence may contain additional lexical nominals further identifying or describing the item evoked by the initial noun base, but these are in the default oblique case, in Yup'ik the Ablative. In (83) the verb is intransitive, and the question word 'what' is Ablative.

- (83) Yup'ik cooccurrence (Elizabeth Ali, speaker)
Camek neqengqercit?
ca-mek neqe-ngqerr-tsi-t
 what-**ABL.SG** food-have-INTERR-2SG
 'What do you have to eat?'

In (84) the verb 'they bowl have' is intransitive, and 'big ones' is oblique.

- (84) Yup'ik cooccurrence (Elena Charles, speaker)
Qantangqelalriit angelrianek.
qantar-ngqerr-lar-lria-t ange-lria-nek
 bowl-have-HAB-INTR.PRTCPT-3PL be.big-NMLZ-**ABL.PL**
 'They have large **bowls**.'

4.2 Nominalization and relativization

The Inuit-Yupik-Unangan languages are rich in both event and participant nominalizing constructions. A common Yup'ik nominalizer is *-lria*. It can form participant nominalizations designating the Absolutive of the base, either intransitive or transitive. In (85), 'the ones coming from other villages' was built on an intransitive verb base 'approach from a distance', and 'the ones they invited', on a transitive verb base 'invite'.

- (85) Yup'ik nominalization with *-lri-* (Elena Charles, speaker)
 ['When you could see them approaching by dogsled across the lake'],
nunanek *agiirtellriit*,
nuna-mek *agiirte-lri-it*
 village-ABL.PL approach.from.distance-NMLZ-PL
 'the ones that were coming from other villages,'

kelellriit,
keleg-lri-it
 invite-NMLZ-3PL>3PL
 'the ones they invited,'
 ['then my grandmother would light some Labrador tea leaves.']

Both of these nominalizations designate the Absolutive argument of the verb base. When the base is transitive, the ending is actually a transitive possessive suffix, with the agent as possessor, here 'their invited ones'. The nominalization built on the transitive verb 'hear' with past nominalizer *-lleq* in (86) shows the same pattern.

- (86) Yup'ik nominalization with *-lleq* (Elizabeth Ali, speaker)
Wanirpak *qanemciqatartua*,
wani-rpak *qanemci-qatar-tu-a*
 here-present tell.story-FUT-INTR.IND-1SG
 'Now I am going to relate a story,'

niitellemnek, . . .
niite-lleq-mnek
 hear-NMLZ-1SG>3SG.ABL.SG
 'about something I heard . . .'

There are no relative clause constructions built with relative pronouns, but comparable ideas can be expressed by nominalizations which may be appositive to other nominals, including demonstratives.

- (87) Yup'ik appositive nominalization (George Charles, speaker)
Aataka *imkut-llu* *allanret* *tekillriit*
aata-la *irnku-t=llu* *allaner-t* *tekite-lri-it*
 father-1SG>3SG.ABS.SG aforementioned-PL=also guest-PL arrive-NMLZ-3PL
 'My father and the others who arrived'

qulirinaurtut.
quliri-naur-tu-t
 tell.legend-HAB-INTR.IND-3PL
 'would tell stories.'

Nominalizations are formed on applicative constructions just as on other transitives, to designate the applied object (transitive Absolutive).

- (88) Yup'ik nominalized applicative (Elena Charles, speaker)

GC: ['What would you like to talk about?']

EC: *Augkunek* *qanruteksaiteltellrenka.*
angku-nek *qaner-ute-ksaite-lrii-nka*
 that.extended-ABL.PL tell-**APPL**-not.yet-**NMLZ**-1SG>3PL
 'Those things I have not talked **about** before.'

4.3 Passivization

The languages differ in their uses of passives. Passivization is rare in Yup'ik, but Kalaallisut contains several passive constructions. The most basic involves a suffix *-neqaq-*. The sentence in (89), from a text in Berge (1997), contains a passivized applicative. The applicative brings the father into the core, then the passive eliminates an unidentified agent, leaving the father as the sole argument of the intransitive clause.

- (89) Kalaallisut passivized applicative (Berge 1997: 423)

Ataataga

ataata-ga

father-1SG>3SG.ABS.SG

'My father'

imaannaanngitsorsuartut

imaannaanngit-soq-suaq-tut

not.without.importance-NMLZ-big-EQ

'**was said** to be an exceptional person.' ('like one not without importance')

oqaatigineqarsinnaavoq.

uqa-utigi-neqaq-sinnaa-v-oq

say-**APPL-PASS**-can-INTR.IND-3SG

As observed by Berge, however, passivization is much more common in Unangan [Aleut].

The passive is used very frequently in Aleut, far more so than in any other Eskimo-Aleut language. By way of comparison, in Greenlandic texts totaling over 600 clauses, there are fewer than 20 passive constructions, as opposed to over 100 passives in similar numbers of clauses in Aleut texts. Some of the Aleut passives are the result of a distancing strategy whereby first plural is expressed as third singular passive; in the Eastern dialect of Aleut, this has become grammaticized. More generally, the passive is used to focus on the topic and de-emphasize other participants. (Berge 2003: 196)

Unangan contains basic passive suffixes *-lga-/sxa-* (and late Atkan also *-lġa-/sġa-*, and Attuan *-lu-/sxa-*), which are applied to both transitive and intransitive bases (Bergsland 1997: 117).

- (90) Unangan passive (Bergsland 1997: 117)

Hla-s kidu-lga-qa-s.

boy-PL help-PASS-INTR.REMOTE-PL

‘The boys **were helped**.’

There are special forms for the passives of the applicatives *-usa-/asa-* and *-ula-/ala-* (Attuan -*Vlu-*).

- (91) Unangan applicative passive (Atkan 1860) (Bergsland 1994: 93, 100; 1997: 117)

a. *haqa-* ‘to come’*haqa-asa-* ‘to come **with**, bring, hand over, give*haaqaqa-ala-* ‘to **be** come **with**, to be brought’b. *asxat-* ‘to kill’*asxa-asa-* ‘to die of’*asxad-usa-* ‘to kill **with**’*asxad-ula-* ‘to **be** killed **with**’c. *quganas ngiin asxadulazaaxtas**qugana-s ngiin asxat-ula-zaa-xta-s*

stone-PL 3PL.DAT kill-PASS.APPL-DISTR-OPT-3PL

‘that they should **be killed** with stones, be stoned’

4.4 Antipassivization

As described in earlier sections, counterparts to antipassive constructions are often formed by simply inflecting a transitive verb as an intransitive. The clause is formally intransitive, with an intransitive mood suffix on the verb and just the agent is mentioned in the pronominal suffix, and the demoted argument implied but cast as oblique or unexpressed. This is obligatory for indefinites but not restricted to them. Such a construction can be seen with the Yup’ik verb ‘buy’ in (92).

- (92) Yup’ik antipassive counterpart (Elizabeth Ali, speaker)

*Tua-i-llu-gguq tauna angukara’urluq,**tuai=llu-gguq tauna angute-karaq-urluq*

and.then=also=hrs that.ABS.SG man-little-dear.ABS.SG

‘And so that dear old man’

*kiputellinilria**im’umek**levaamek.**kipute-llini-lria**im’u-mek**levaaq-mek*

buy-apparently-INTR.PRTC.3SG the.aforementioned-ABL.SG motor-ABL.SG

‘bought this motor.’

Applicative constructions are agentive ambitransitives: the applicative suffix creates a transitive verb with added Absolutive argument. This verb may be inflected as an intransitive, however, whose single argument is the agent. As described in Section 3.1, sequences consisting of the general applicative *-ute-* and intransitive inflection have been extended to function as antipassives, added to transitive-only and patientive ambitransitive bases.

The suffix *-(g)i-*, which functions as an adversative applicative in Yup'ik, also serves this antipassive function. Miyaoka notes that some constructions formed from patientive ambitransitives with this suffix can in fact have two interpretations. The verb *tegu-* means 'take' when inflected as a transitive and 'lose' when inflected as an intransitive. With the suffix *-(g)i-*, it can be understood as either an adversative applicative or an antipassive.

- (93) Yup'ik patientive ambitransitive (Miyaoka 2012: 1106)

Tegu-i-gu-kut *yug-mek.*

take-*gi*-INTR.IND-1PL person-ABL.SG

'We (a village) lost, were deprived of a person.' Adversative applicative

'We took a person.' Antipassive

Miyaoka observes that the antipassive construction is highly productive, occurring with the majority of patientive ambitransitives. The adversative applicative construction is less so.

By contrast, use of the adversative *-(g)i-* varies widely among speakers, generations, and (possibly) dialect areas, as well as depending on the verb stems concerned and according to whether the verb is transitive or intransitive. It thus comes as no surprise if at least some (or many) of the adversative verbs cited should be unheard of, taken as strange, or (almost or totally) unacceptable, by many speakers, especially younger speakers. It happens, however, that even these speakers may use some lexicalized remnants. (Miyaoka 2012: 1106)

Cognates of the suffix *-(g)i-* are pervasive throughout the family, but for the most part with just the antipassive function. A few adversative formations can be found in some of the languages, however: a relic in Central Siberian Yupik, a semi-productive construction in Iñupiaq, and a number of lexicalized transitives in Kalaallisut. Miyaoka sees a link between the two functions, noting that the implication that an event is accidental or involuntary is not unrelated to an adverse effect on the only core argument.

4.5 Discourse uses

The arguments added by applicatives are in general topical within the discourse, though there is not the extensive manipulation of roles seen in some other languages. Their uses depend on the inventory of lexicalized derivations that speakers have to choose from.

Uses of the various available argument structures of the Yup'ik verb *qaner*- 'speak, say' can be compared in the following examples. This verb is an agentive ambitransitive. It can be inflected as both an intransitive and a transitive, the single argument of the intransitive matches the agent of the transitive, and the Absolutive of the basic transitive is what is said, what would be a direct object in languages like English. An applicative form can add a recipient, the hearer.

- (94) Yup'ik ambitransitive, agentive, indirective *qaner*- 'speak'

<i>qaner</i> -	'speak, utter, converse'	
<i>qanertuq</i>	's/he is speaking, spoke'	Intransitive
<i>qaneraa</i>	's/he said it'	Basic transitive
<i>qanrutaa</i>	's/he told him/her'	Applicative transitive

A basic intransitive use with only an Absolutive can be seen in (95).

- (95) Yup'ik basic intransitive *qaner*- 'speak' (Elizabeth Ali, speaker)

<i>Yuut</i>	<i>qanyuunateng.</i>
<i>yug-t</i>	<i>qaner-yu-ite-na-ten</i>
person-ABL.PL	speak-customarily-NEG-SUBORD-3R.PL
'The people do not speak.'	

As an intransitive, this verb can appear with various additional oblique participants. In (96) it appears with an Allative nominal naming the addressee 'you'. The speaker was introducing a new topic for discussion. This new topic 'something' was indefinite at this point, so could not be cast as a core argument, but the addressee 'you' was inherently definite, so could have been. The speaker chose to cast it as oblique, however, because this was not about the addressee.

- (96) Yup'ik intransitive *qaner*- 'speak' with Allative recipient (Elizabeth Ali, speaker)

<i>Atam</i>	<i>qanerqangssakua</i>	<i>elpenun.</i>
<i>atam</i>	<i>qaner-qar-ngssak-u-a</i>	<i>elpe-nun</i>
listen	speak-briefly-non-vitally-INTR.IND-1SG	2SG-ALL
'Listen, I have a little something to talk to you about.'		

The intransitive in (97) appears with an oblique naming the subject matter in the Ablative case.

- (97) Yup'ik intransitive *qaner*- 'speak' with Ablative content (Elena Charles, speaker)

<i>Alerquutinek</i>	<i>qaneryugyaaqua.</i>
<i>alerqur-ute-inek</i>	<i>qaner-yug-yaaqe-u-a</i>
instruct-device-3SG>3PL.ABL	talk-want.to-actually-INTR.IND-1SG
'I actually want to talk about their prescriptions .'	

Applicatives can be used to bring topical referents into the core. In (98), the recipient, Raven, was mentioned immediately before the applicative clause ‘she spoke to him’.

- (98) Yup’ik applicative *qaner-ute*- ‘speak to’ (Elizabeth Ali, speaker)

Tulukara’urluq *caukii*,
tulukaruk-urluq *cau-ke-ii*
 raven-dear.ABS.SG face-TR.PRTCP-3SG>3SG
 ‘She faced **Raven**,’

waten-llu *qanruskii*, “. . .”
waten=llu *qaner-ute-ke-ii*
 like.this=and speak-**APPL**-TR.PRTCP-3SG>3SG
 ‘and spoke **to him** thus, “. . .”

Mrs. Ali and her brother had been discussing a group of students. When she referred to them as recipients in (99), she brought them into the core with the applicative ‘speak to’ = ‘tell’.

- (99) Yup’ik applicative *qaner-ute*- ‘speak to’ (Elizabeth Ali, speaker)

[‘**They** ask me about you, ask how you’re doing.’]

Qanrutelaranka, *assirluten-gguq*.
qaner-ute-lar-a-nka *assir-lu-ten=gguq*
 speak-**APPL**-HAB-TR.IND-1SG>3PL be.good-SUBORD-2SG=HRS
 ‘I tell **them** you’re good.’

A question was posed about the woman Nayagaq. In the answer, she was cast as part of the Absolutive by the applicative.

- (100) Yup’ik applicative *qaner-ute*- (George Charles, Elena Charles, speakers)

GC: *Nayagam-qaa* *tauna* *nallunritellrua?*
Nayagaq-m=qaa *tauna* *nallu-nrite-llru-a-a*
 NAME-ERG=Q that.ABS not.know-NEG-PAST-TR.INDIC-3SG>3SG
 ‘Did **Nayagaq** know that?’

EC: *Aaniin-wa*
aana-an=wa
 mother-3SG>3SG.ERG=probably
 ‘I guess her mother’

ilalrin *qanrutelallrulliki*,
ila-ller-in *qaner-ute-lar-llru-li-ki*
 relative-PAST-3SG>3PL.GEN talk-**APPL**-HAB-PAST-OPT-3SG>3PL
 ‘used to tell **them** her deceased relatives’

atritnek.
ater-itnek
 name-3PL>3PL.ABL
 ‘names.’

A similar pattern can be seen with verbs based on *kenir*- ‘cook, make a fire’. This verb is similarly an agentive ambitransitive. An applicative form adds a beneficiary.

- (101) Yup’ik *kenir*- ‘cook’
- | | | |
|-----------------|--|-------------------------|
| <i>kenir</i> - | ‘cook, make a fire’ | |
| <i>kenirtuq</i> | ‘s/he is cooking, making a fire’ | Intransitive |
| <i>keniraa</i> | ‘s/he is cooking it, making a fire under it’ | Basic transitive |
| <i>keniutaa</i> | ‘s/he is cooking for him/her’ | Benefactive applicative |

George Charles was discussing his father’s dogs. As the main topic of conversation, they were cast as a core argument of the applicative ‘cook for’, rather than as oblique.

- (102) Yup’ik *kenir-ute*- ‘cook for’ (George Charles, speaker)
 [‘When I was small, when we lived in Kasigluk and in Bethel, my father used to travel around with dogs. I used to watch my father taking good care of those dogs. He used to feed the dogs every day in winter. He would feed them dried fish. Sometimes he would have more than ten dogs. And during the summer, he would take care of the dogs and try to fatten them up.’]

Aataqa, *nerevavkarilukilu,* *cal’,* *keniulluki.*
aata-qa *nere-vkar-lu-ki=llu* *cali* *kenir-ute-lu-ki*
 father-1SG>3SG eat-CAUS-SUBORD-R>3PL=too and cook-APPL-SUBORD-R>3PL
 ‘My father would feed them and cook **for** them.’

Similar patterns appear in the other languages. In Unangan, a passive applicative can bring a topical participant into the core and eliminate an agent, leaving that topical participant as the only argument.

- (103) Unangan passive applicative (Eastern) (Bergsland 1997: 174)
- | | | |
|---|----------------|--------------------------|
| <i>Ulaan</i> | <i>nuguun</i> | <i>aaluulalix.</i> |
| <i>ula-an</i> | <i>nu-guun</i> | <i>aalu-ula-lix</i> |
| house-LOC | come-COND.3R | laugh-PASS.APPL-CONJ.3SG |
| ‘When he got back to the house, he was laughed at. ’ | | |

The same pattern can be seen in (104). The passive applicative in the first clause brings the water into the core and leaves it as the only argument, and the applicative in the

second ensures that it remains in the core. (Bergsland 1997: 97 notes that in anterior clauses, the subject is marked by possessives in the Locative case.)

- (104) Unangan passive applicative and applicative (Bergsland 1997: 174)

<i>Taangam</i>	<i>anġaġii</i>	<i>igiim</i>	<i>uulaangan,</i>
<i>taanga-m</i>	<i>anġaġii</i>	<i>igiim</i>	<i>u-ula-angan</i>
water.LOC.POSS	live	3R.DAT	go- APPL.PASS -ANTERIOR.3SG

‘When the living water **was brought** to him,’

<i>igiim</i>	<i>ġulaasaqalikuġ</i>	<i>awa.</i>
<i>igiim</i>	<i>ġula-asa-qali-ku-ġ</i>	<i>awa</i>
3R.DAT	wash- APPL -begin-IND-SG	over:there

‘he began to wash himself **with** it.’

Applicatives do not appear to play a special role in focus constructions. Focused constituents occur as obliques as often as Ergatives or Absolutives, like the foci of questions in (105) and (106):

- (105) Yup’ik oblique focus of question (George Charles, speaker)

<i>Bobankuni-qaa</i>	<i>uitaciquten?</i>
<i>Bob-aq-nkut-ni=qaa</i>	<i>uita-ciqe-u-ten</i>
NAME-LK-ASSOC.PL- LOC.PL =Q	stay-FUT-INTR.IND-2SG

‘Will you stay **with** Bob and his family?’

- (106) Yup’ik oblique focus of question (George Charles, speaker)

<i>Aqvaluci</i>	<i>nunakuarcuutkun-qaa?</i>
<i>aqva-lu-ci</i>	<i>nuna-kuar-cuute-kun=qaa</i>
fetch-SUBORD-R>2PL	land-go.by.way.of-device- VIA =Q

‘Did they get you **with** a car?’

5 Conclusion

The languages of the Inuit-Yupik-Unangan family contain applicative constructions marked by verbal suffixes. Six are described here, one of which can be reconstructed for the common parent Proto-Inuit-Yupik-Unangan, two for the Proto-Inuit-Yupik branch of the family, two more for Yup’ik, and one more for Kalaallisut.

Morphology

- A general applicative reconstructed as *-utə- for Proto-Inuit-Yupik-Unangan can add a recipient, goal, beneficiary, companion, reason, or instrument.

- A reason applicative reconstructed as **-utəkə-* for Proto-Inuit-Yupik was formed by the amalgamation of an instrumental nominalizer of the same shape as the general applicative, **-utə-* and a verbalizer **-kə* ‘have as’.
- A locative applicative reconstructed as **δviyə-* for Proto-Inuit-Yupik is an amalgamation of a locative nominalizer **-δvik-* and the verbalizer **-kə* ‘have as’.
- A Yup’ik adversative *-(g)i-* adds an adversely affected participant. The same marker also functions as an antipassive here and in related languages.
- A Yup’ik substitutive applicative *-ucite-* ‘in place of’ may have developed from an amalgamation of the general applicative **-utə-*, the antipassive **-(g)i-*, and a repetition of the general applicative.
- A Kalaallisut comitative applicative *-qatig(i)-* was formed from a suffix *-qati-* ‘fellow’ and the verbalizer **-kə* ‘have as’.
- The suffixes show some allomorphy, but it is phonologically conditioned.

Syntax

- Applicative suffixes can be added to intransitive bases, transitive bases, and ambitransitive bases, those which can be inflected as either intransitive or transitive. Agentive ambitransitives are those whose intransitive argument is a semantic agent, and Patientive ambitransitives are those whose intransitive argument is a semantic patient. Applicatives can be added to both.
- All applicatives add an argument to the clause, which usually assumes the role of transitive Absolutive. In this capacity the added argument has all the same characteristics as other transitive Absolutives.
- Applicative verb stems are inflected in the same ways as other verb stems.
- When applicatives are added to transitive bases, the original base Absolutive is inflected as oblique or not mentioned at all.
- There are no double-object constructions.
- The languages have no noun incorporation, though all have a likely descendant of noun incorporation, consisting of a noun base and following verbalizing suffix. These derived bases function like other verb bases for the formation of applicatives.
- The languages all contain participant nominalizers which derive nominals designating the Absolutives of their bases, either intransitive or transitive. Nominalizations of transitive bases are inflected with possessive endings, with the base Ergative cast as the possessor and the Absolutive as the possessed. What is expressed by relative clause constructions in many other languages can be expressed simply by nominalized clauses in these languages, appositive to nouns or other nominals, to demonstratives, or on their own. Applicative constructions are nominalized in the same ways as other transitives for these purposes.
- Passivization is rare in Yup’ik, somewhat more pervasive in Kalaallisut, and considerably more frequent in Unangan. In Kalaallisut, applicative constructions can be passivized. In Unangan, a special passive applicative suffix has developed. The

most common way of detransitivizing transitive verbs is simply to inflect them as intransitive.

- In these languages only definite referents can be transitive Absolutives. Indefinite patients, themes, etc. are cast as obliques. Like other ambitransitives, applicative constructions are obligatorily inflected as intransitives if the introduced argument is indefinite. The result is similar to that of antipassives. The counterpart of the transitive Ergative is cast as the intransitive Absolute, and the counterpart of the transitive Absolute is oblique. Unlike prototypical antipassive constructions, there is no antipassive marker in these applicatives. The functions of sequences of applicative suffixes and intransitive inflection have, however, been extended to serve as antipassive marking on transitive-only bases and patientive ambitransitive bases, without adding applicative meaning.

Semantics

- Applicative suffixes are derivational: they are used to create new lexical items. The meanings of these new lexemes are usually relatively transparent, but the precise meanings added by the applicatives vary.
- Transitive verb bases can have a semantic patient/theme as Absolute, or a recipient/beneficiary, etc. as Absolute, among other roles. If the base Absolute was a patient or theme, the applicative can introduce a recipient/beneficiary/etc. as a core argument. If the base Absolute was a recipient/beneficiary/etc., the applicative can bring a semantic patient/theme into the core. The cases of any other obliques in the base construction remain unchanged.
- Like other ambitransitives, applied verb stems can be inflected as intransitives with dual or plural pronominal suffixes for reciprocal or joint actions.
- Speaker choices between basic and applicative constructions, where those exist, are motivated primarily by topicality. More topical participants are generally cast as core arguments where the vocabulary permits, and as obliques otherwise.

Appendix

1. General Central Alaskan Yup'ik: Jacobson (2012: 47)

<u>Consonants</u>	labial	apical	velar	uvular	labio-velar	labio-uvular
Stops	<i>p</i>	<i>t c</i>	<i>k</i>	<i>q</i>	<i>ʔk</i>	<i>ʔq</i>
Voiced fricatives	<i>v</i>	<i>l s/y</i>	<i>g</i>	<i>r</i>	<i>ʔg</i>	<i>ʔr</i>
Voiceless fricatives	<i>vv</i>	<i>ll ss</i>	<i>gg</i>	<i>rr</i>	<i>w'</i>	<i>ʔrr</i>
Voiced nasals	<i>m</i>	<i>n</i>	<i>ng</i>			
Voiceless nasals	<i>m'</i>	<i>n'</i>	<i>n'g</i>			

<u>Vowels</u>	front	back
High	<i>i</i>	<i>u</i>
	<i>e</i>	
Low	<i>a</i>	

The symbol *c* represents an affricate. All of the vowels are lowered before uvulars. The vowel *e* represents a schwa. Full vowels *i*, *u*, and *a* may occur in sequence. Numerous phonological adjustments occur at morpheme boundaries.

2. Kalaallisut: Kahn and Valijarvi (2021: 17–22)

An older orthography established by Kleinschmidt in 1851 was revised in 1977 to the mostly phonemic system below.

<u>Consonants</u>	labial	apical	velar	uvular
Stops	<i>p</i>	<i>t c</i>	<i>k</i>	<i>q</i>
Voiced fricatives	<i>v</i>		<i>g</i>	<i>r</i>
Voiceless fricatives	<i>f</i>	<i>ll s</i>	<i>gg</i>	<i>rr</i>
Voiced nasals	<i>m</i>	<i>n</i>	<i>ng</i>	
Voiced lateral, glide		<i>lj</i>		

<u>Vowels</u>	front	back
High	<i>i</i>	<i>u</i>
	<i>e</i>	
Low	<i>a</i>	

All consonants except *j* and *v* may be geminated. Words end only in a vowel, stop, or rarely *n*. As in Yup'ik, the mid vowels are allophones of the high vowels occurring before uvulars *q* and *r*.

3. Unangan: Bergsland (1997: 16)

Sounds in parentheses occur only in Russian and English loanwords.

<u>Consonants</u>	labial	apical	palatal	velar	uvular	glottal
Stops	(<i>p</i>)	<i>t</i>	<i>ch</i>	<i>k</i>	<i>q</i>	
(Voiced stops)	(<i>b</i>)	(<i>d</i>)		(<i>g</i>)		
Voiced fricatives	(<i>v</i>)	<i>d</i>	<i>z</i>	<i>g</i>	<i>ġ</i>	
Voiceless fricatives	(<i>f</i>)	<i>hd</i>	<i>s</i>	<i>x</i>	<i>ġ</i>	
Voiced nasals	<i>m</i>	<i>n</i>		<i>ng</i>		
Voiceless nasals	<i>hm</i>	<i>hn</i>	<i>hng</i>			

Voiced approximants	<i>w</i>	<i>l(r)</i>	<i>y</i>	
Aspirated approximants	<i>hw</i>	<i>hl</i>	<i>hy</i>	<i>h</i>
<u>Vowels</u>	front		back	
High	<i>i, ii</i>		<i>u, uu</i>	
	<i>(e, ee)</i>		<i>(o, oo)</i>	
Low	<i>(ää)</i>		<i>a, aa</i>	

Abbreviations

ABL	ablative
ABS	absolutive
AEQ	aequalis
AGT	agentive
ALL	allative
ANTIP	antipassive
APPL	applicative
ASSOC	associative
CAUS	causative mood
COND	conditional mood
CONJ	conjunctive mood
CONSEQ	consequential mood
CONTEMP	contemporative mood
DAT	dative
DISTR	distributive
DU	dual
EQ	equative
ERG	ergative
FUT	future
GEN	genitive
HAB	habitual
HRS	hearsay
IND	indicative mood
INS	instrumental
INTERR	interrogative mood
INTR	intransitive
LK	linker
LOC	locative
NEG	negative
NMLZ	nominalizer
OPT	optative mood
PASS	passive
PL	plural
POSS	possessive
PRS	present

PRTCP	participial mood
PST	past
Q	question marker
R	coreferential
REM	remote
SG	singular
SUBORD	subordinative mood
TR	transitive
VIA	vialis
x>y	x acts on y

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Hunter Thompson Lockwood and Monica Macaulay

18 Applicatives across Algonquian

Abstract: This paper surveys applicatives and related constructions across the Algonquian language family. Most of the languages have multiple affixes that license benefactives, goals, recipients, and other participants as objects, and there are some constructions which license oblique arguments as well. Examples with both an overt O1 and O2 are relatively rare, but the data collected shows that word order in applicative constructions is fairly free, with all possible orderings of verb and object(s) attested. We also consider a number of other forms, including the “relative root” construction, in which a derivational component of the stem licenses an oblique object, concluding that they are syntactic lookalikes rather than true applicatives because there is no corresponding BC. The closely-related relative preverb construction, however, is a true applicative because a corresponding BC can be identified. “Relational verbs” are also addressed; these are valence-neutral morphological lookalike forms found primarily in the Cree language group.

1 Introduction

This chapter surveys applicatives and related constructions across Algonquian, a large family of North American languages which extends eastward from the Canadian Rocky Mountains, across the northern Great Plains and midwestern United States, and along the east coast of both countries.

The Algonquian languages are rich in applicative and applicative-like constructions. On the one hand, in most of the languages there are multiple affixes that license benefactives, goals, recipients, and other participants as objects. This reflects what Rhodes describes as a conspiracy “to avoid the creation of oblique nominals” (2010: 428). At the same time, there are also constructions which do license oblique arguments, and even what Junker and Toivonen (2015) call “ghost participants” (participants which are indexed on the verb, but cannot be instantiated as an overt argument).

In the next section we provide relevant background on Algonquian language structure. In sections 3 and 4 we discuss affixal applicatives, and in Section 5 we look at the

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syntax of such constructions. Sections 6 and 7 then present two constructions which include what Algonquianists call “initials” (or roots) and “preverbs”, and Section 8 discusses the relational verb construction. Section 9 concludes.¹

2 Background on Algonquian morphosyntax

Algonquian languages are polysynthetic, with complex inflectional and derivational morphology. In this section we briefly introduce topics relevant to applicatives.

2.1 Verb types

Verbs in Algonquian languages fall into four basic types based on the (grammatical) animacy of their absolutive arguments (subject of intransitive and object of transitive), as shown in Table 1.² Each type has a distinct set of agreement paradigms, called “orders”. In most of the languages, the most common are INDEPENDENT (generally for main clauses) and CONJUNCT (generally for subordinate clauses).

Table 1: Basic verb types.

Type	Abbreviation	Subject	Object
Inanimate Intransitive	II	inanimate	
Animate Intransitive	AI	animate	
Transitive Inanimate	TI		inanimate
Transitive Animate	TA		animate

Where the distinction is not relevant, we use the term “object” as a cover term for the grammatical relations O1 and O2, which behave differently with respect to person, animacy, and indexation (see Section 2.5). O1 and O2 coexist in ditransitive constructions, and can then be characterized as primary and secondary objects, respectively. The transitive verbs of Table 1 have an object of the O1 type.

¹ Our sources are listed in Appendix A. Some Menominee examples are taken from Bloomfield (1928); these are noted with a text title abbreviation and a line number. The title abbreviations appear in Appendix B.

² Animacy is the standard term for the division of nouns into noun classes in the Algonquian languages. Based on a study of stem contrasts, Goddard finds evidence that animate nouns typically denote “the special or particular counterpart of the more ordinary, general, or inclusive inanimate, or the animate is a part and the inanimate the whole” (2002: 216), and notes the influence of other factors like size. Ultimately, however, Goddard concludes that animacy is grammatical in Algonquian, and that “[t]he basic meaning of the animate gender is a function of the contrast with the inanimate gender” (2002: 224).

In addition to the verb categories in Table 1, there are a few mismatches between syntax and morphology; most relevant for our purposes are the so-called “AI+O verbs”. These are verbs which in some of the languages inflect exactly like AI verbs but allow an object, and in other languages add special inflection to an AI verb reflecting an object, without derivational morphology changing the stem category. As described further in Section 2.5, this object is of the O2 type. AI+O verbs are illustrated in (1) and (2):³

- (1) Menominee (Bloomfield 1962: 47)

Nepēw ne-kāta-menāē-m.
 water 1-FUT-drink.AI-1
 ‘I want to drink some water.’

- (2) Ojibwe [Odawa] (Rhodes and Valentine 2015: 1208)

Ngii-bwen wiiyaas
 ni-gii=abwe-n wiiyaas
 1-PAST=roast.AI-n meat
 ‘I roasted the meat’

In (1), the stem /menāē-/ is animate intransitive and inflects as a normal AI verb, despite the fact that it has an object. In (2), however, the AI stem /abwe-/ is marked with the suffix *-n*, a special inflectional marker which appears in various environments in Ojibwe, including on AI+O verbs. The details will not concern us here, but as we show below, AI+O verbs play an important role in applicativization.

2.2 Derivation of verb stems

Most basic verb stems contain at least two derivational parts, the initial and the final.⁴ (3) provides a few examples of what is known among Algonquianists as PRIMARY DERIVATION.⁵

³ We use the orthography of our sources in examples, except for Menominee, where we use the modern orthography. Several sources use capital letters for morphophonemes which show particular alternations (which are not important for present purposes). Vowel length may be indicated with double vowels, a raised dot, a macron, or a circumflex. Some authors use a raised dot or colon before a suffix to indicate that it lengthens a preceding short vowel. Abbreviations used in examples appear at the end of the chapter.

⁴ The maximal template for a simple word across Algonquian is tripartite: INITIAL-MEDIAL-FINAL. Medials form a small class relative to the other types of element, and are optional. Initials are also called ‘roots’ by many Algonquianists, but we prefer to use ‘initial’ because of the potential confusion with other uses of the term ‘root’ in linguistics.

⁵ The translations and glosses in our examples may be slightly simplified, for ease of exposition. In this set of examples, the second and third lines show only the derivational morphemes in each word, enclosed by slashes.

(3) SW Ojibwe (OPD)

- a. *gwayakosin* ‘it (inan.) lies straight’
/gwayakw-sin/
/straight-lie.II/
INITIAL-FINAL
- b. *gwayakoshin* ‘s/he/it (an.) lies straight’
/gwayakw-shin/
/straight-lie.AI/
INITIAL-FINAL
- c. *bagamiwidoon* ‘arrive carrying it (inan.)’
/bagam-wid/
/arrive-carry.TI/
INITIAL-FINAL
- d. *bagamiwizh* ‘arrive carrying him/her/it (an.)’
/bagam-wiN/
/arrive-carry.TA/
INITIAL-FINAL

Each pair of examples contains an initial (*gwayakw-* or *bagam-*) followed by a final providing both lexical and grammatical information. The grammatical information in each case is the verb type, and as these examples show, finals often come in pairs according to the animacy of the relevant argument. We will see this again when considering applicative suffixes.

Verb stems can be modified further by adding another final through SECONDARY DERIVATION. (4a), below, shows a TI verb meaning ‘sip it (inanimate)’. In (4b) a secondary final *-a*’ has been added to the stem of that verb, causativizing it, and yielding the TA verb ‘give (animate) a sip of it’.

(4) SW Ojibwe (OPD)

- a. *gwaabandan* ‘sip it (inan.)’
/gwaab-and/
/scoop.up-act.on.by.mouth.TI/
INITIAL-FINAL
- b. *gwaabanda*’ ‘give him/her/it (an.) a sip of it’
/[gwaaband]-a/
/[sip.it]-cause.TA/
[STEM]-FINAL

Many of the applicative suffixes that we describe below fall into the category of secondary derivation; that is, they attach to a stem (the BC), creating a new stem (the AC).

2.3 Notes on verb inflection

A few inflectional categories and related phenomena are relevant to the discussion of applicatives.

The marking of inflection on transitive verbs is conventionally treated as governed by a set of prominence hierarchies (see Zúñiga 2008; Macaulay 2009). Consider the examples in (5) (where stems are bracketed):

(5) Meskwaki (Dahlstrom 2021, Ch. 4: 14, 17–18)

- a. *ne-[wa·pam]-a-w-a*
I-[look.at]-TS-3-SG
'I look at him'
- b. *newa·pamekwa*
ne-[wa·pam]-ekw-w-a
I-[look.at]-TS-3-SG
'He looks at me'
- c. *ke-[wa·pam]-i*
2-[look.at]-TS
'You (sg.) look at me'
- d. *ke-[wa·pam]-en-e*
2-[look.at]-TS-EP
'I look at you (sg.)'

Both (5a) and (5b) carry the first person prefix, despite the fact that the first person is subject in the former and object in the latter. In (5c) and (5d) the second person prefix appears, again marking subject in the former and object in the latter. The customary analysis is that the prefixes are governed by a prominence hierarchy of the form $2 > 1 > 3$. The suffixes glossed "TS" (theme sign) in the examples then distinguish subject and object. Traditionally, *-a-*, as in (5a), is called the direct theme sign, meaning that the subject outranks the object on the hierarchy, while *-ekw*, in (5b), is called inverse, meaning that the object outranks the subject. Authors differ on whether the two theme signs in (5c) and (5d) should likewise be treated as direct and inverse; we do not address that here.

TI verbs also have theme signs, which can be said to agree with the inanimate object. Many Algonquian languages have three classes of TI verbs, illustrated below for Meskwaki:

(6) Meskwaki (Dahlstrom 2021, Ch. 4: 11–12)

- a. *[wa·pat]-am-w-a*
[look.at]-TS-3-SG
'S/he looks at it.'

- b. *[pye-t]-o-w-a*
[bring]-TS-3-SG
'S/he brings it'
- c. *[mi-čij]-Ø-w-a*
[eat]-TS-3-SG
'S/he eats it.'

(6a) illustrates a TI Class 1 verb, marked by theme sign *-am*, which alternates with *-a* in other person/number combinations. (6b) illustrates Class 2, marked by theme sign *-o*. Some languages also have a small and idiosyncratic class of TI3 verbs, which in Meskwaki has no theme sign (we have added a zero to make this explicit).

Many analyses treat some or all of the theme signs as object agreement (e.g. Pentland 1999; Oxford 2019); this puts them into the realm of more familiar morphological functions. Theme signs are relevant in our description of several of the applicative types below.

2.4 Preverbs

Most Algonquian languages have a class of preverbs, which attach to the beginning of the verb stem and contribute tense, aspect, adverbial, and other meanings. The following examples illustrate preverbs (underlined> in Cheyenne:

- (7) Cheyenne (Leman 2014: 250–251)
 - a. *Né-to'se-vá'ne-onésé-[héhpóheh]-a*
2-going.to-only-try-[scare]-INV
'He is only going to try to scare you.'
 - b. *Ná-ohké-sáa-'oné'séóme-péhéve-[tséhést-o'ané]-he*
1-HAB-not-EP-truly-well-[Cheyenne-pronounce]-NEG
'I truly do not pronounce Cheyenne well.'

The categories of preverb and initial overlap to a great extent in terms of content and form; in some of the languages many are identical in form, but in others preverbs have an extra derivational morpheme, often *-i*, as shown in Table 2.

The two are clearly distinguished in terms of relative position, however: the initial is always the first morpheme in the stem, and preverbs appear to the left of the stem. They are also distinguished by boundary; initials are part of derivational morphology, forming stems, but in most Algonquian languages preverbs compound with stems, with a word boundary intervening.

We show in sections 6 and 7 how preverbs participate in applicative formation in some contexts.

Table 2: Meskwaki initials and preverbs
(Dahlstrom 2021, Ch. 6: 12–13).

Initial	Preverb	Meaning
<i>asa-m-</i>	<i>asa-mi-</i>	‘too much’
<i>menw-</i>	<i>menwi-</i>	‘well’
<i>nah-</i>	<i>nahi-</i>	‘know how’
<i>ni-šw-</i>	<i>ni-šwi-</i>	‘two’
<i>po-n-</i>	<i>po-ni-</i>	‘cease’

2.5 Grammatical relations

Grammatical relations in Algonquian languages have not been extensively studied, with some exceptions such as work on Ojibwe by Rhodes (e.g. 1990) and Dryer (1986), and work on Meskwaki by Dahlstrom (e.g. 2009). It is broadly accepted, though, that Algonquian languages are of the PO (primary object) type, in Dryer’s (1986: 815) terms; that is, that the relations subject, primary object (O1), and secondary object (O2) are the relevant grammatical relations in these languages.⁶ Because (as we show below) objects of monotransitive verbs and primary objects of ditransitive verbs are treated alike, contrasting with secondary objects, the languages can be said to show secondary alignment (Malchukov et al. 2010: 3–5).

Subjects are morphologically marked on verbs as the only argument of true intransitive verbs and as one argument of some forms of transitive verbs, as we have seen in many of the examples above, including (7b). Primary objects are distinguished first and foremost by animacy, as illustrated in Table 1, and in (8) below:

(8) Menominee (Bloomfield 1975: 261)

- a. *wanēhnetaw*
[wan-e-hNEt]-ā-w
[lose-EP-lay.TI]-TS-3
‘S/he loses it’
- b. *wanēhsemaew*
[wan-e-hsem]-āē-w
[lose-EP-lay.TA]-TS-3
‘S/he loses him, her, it (an.)’

⁶ We remain neutral here on whether nominals or agreement satisfy argument structure. Both positions have been taken in approaches to Algonquian syntax; see especially LeSourd (2006).

In these examples the object's animacy is determined by the form of the final: *-hNEt* derives a TI verb (with inanimate object), and *-hsem* derives a TA verb (with animate object). Additionally, the form of the theme sign signals the animacy of the object: *-ā* in (8a) is a TI theme sign and *-āē* in (8b) is a TA theme sign.

Ditransitives in Algonquian languages take two objects, an O1 (usually recipient or benefactive, but also a range of other thematic roles) and an O2 (almost always a patient or theme). Dahlstrom (2009: 227) makes the point that a prepositional dative alternation of the sort found in English is not available in Meskwaki (nor in other Algonquian languages): "The double object construction is the only possibility".⁷ (9) provides an example of a basic ditransitive in Plains Cree:

- (9) Plains Cree (Wolvengrey 2011: 59)
Ni-kī-[miy]-ā-w ana awāsis maskisina
 1-IPFV-[give]-TS-3 that child shoe.INAN.PL
 'I gave that child shoes.'

Here, the primary object is the recipient, the child. The secondary object is *maskisina* 'shoes', which is inanimate. The verb has a TA theme sign (*-ā*), which shows that it agrees with the (animate) primary object.

Various authors have pointed out that the two objects in a ditransitive construction show a range of morphosyntactic differences. While primary objects are restricted only by animacy (as shown in [8]), Rhodes (1990), for example, shows that secondary objects are restricted to third person and cannot passivize. Dahlstrom (2009) provides a longer list of tests for Meskwaki that show the same result. An illustration of the person restriction is shown in (10):⁸

- (10) Ojibwe (Lochbihler 2012: 118)⁹
 a. **gi-gii-miin-aa niin*
 2-PAST-give-TS me
 Intended: 'You gave me to him/her.'
 b. **ni-gii-miin-aa giin*
 1-PAST-give-TS you
 Intended: 'I gave you to him/her.'

⁷ In the Algonquianist tradition, ditransitives and applicatives are usually called "double object constructions", "double goal constructions", "benefactives", and "TA+O verbs".

⁸ Meadows (2010: 108) provides elicited examples from Blackfoot showing a first and second person O2, so that language may not share this restriction.

⁹ Lochbihler (2012: 23) says that most of her data come from Eastern Ojibwe, but that she also includes data from other dialects. She marks these two examples as just "Ojibwe".

These examples show that ditransitives are ungrammatical with a non-third person O2. Furthermore, these authors (and others) have also shown that, by these criteria, the object of an AI+O is likewise an O2.

There is less consensus on the status of oblique arguments in Algonquian. The term “oblique” often goes undefined in the Algonquianist literature, but Dahlstrom defines it as follows: “Oblique arguments . . . are ones in which a thematic role is explicitly encoded, perhaps by choice of preposition, as in English, or by semantic case marking, as in Finnish” (2014: 58).¹⁰ She goes on to say that the most common type of encoding for obliques found in Algonquian languages is the appearance of what are known as relative roots; they are the subject of Section 6. Briefly (and incompletely), relative roots are derivational components (initials) which license oblique arguments, as in (11):

- (11) Meskwaki (Dahlstrom 2015: 60)
Meneseki e-hočiwenekoči
 menes-eki e-h-očiwen-ekoči
 island-LOC AOR-carry.O.from.(there)-3'>3/AOR
 ‘It (an eagle) carried him from the island.’

In (11), the verb ‘carry (animate) from there’ contains the relative root *ot-* ‘source of motion’ and the final *-iwen-* ‘carry’. This adds an oblique argument to the valence of the verb, which in this sentence is realized by the locative-marked noun *meneseki* ‘island’. However, Dahlstrom points out that a variety of categories may fulfill this requirement for an oblique argument – a noun (bare or locative), a demonstrative, or an adverbial particle, for example. More examples can be found in Section 6.

2.6 Word order

The syntax of Algonquian languages is strongly influenced by discourse factors. As Dahlstrom (2017) points out, many authors have argued that clauses in Algonquian languages are basically verb-initial, but with preverbal positions for at least a topic and a focus constituent.¹¹ She also points out that attempts at determining basic word order based on the relative ordering of S, O, and V inevitably find a lack of significant patterns in the data. Costa (2017: 349) goes so far as to say “the concept of ‘basic word order’ as it is applied to configurational languages is not useful in describing Miami-Illinois word order”. Sullivan (2012) notes the importance of considering the source of

¹⁰ Dahlstrom is writing here within the framework of Lexical Functional Grammar, but we find the definition broad enough to generalize.

¹¹ There is also a large literature on Algonquian language structure in the minimalist tradition, which for the most part has a very different approach to word order. We do not address that kind of approach here.

data in such studies. He points out that elicitation bias towards an English-like SVO pattern is a real possibility for languages that do allow that as one acceptable word order. He resolves this with a picture-description task for Southwestern Ojibwe, the results of which support the kind of discourse-driven model that Dahlstrom describes.

Dahlstrom (1995: 3 and elsewhere) argues for a relatively flat templatic structure for Meskwaki word order, with slots for topic, negative, focus, and oblique before the verb, and for other constituents after it. Other authors (e.g. Johnson et al. 2015; Costa 2017) have made similar claims for other Algonquian languages, although the relative positions of specific elements differ across the languages.

At the same time, as is typical with polysynthetic languages, phrases corresponding to arguments are often omitted. This plays a large role in our discussion of the syntax of ditransitives, because of the difficulty of finding a large enough set of data for any given language with both objects present as overt nominals.

One final factor that is relevant to word order is the possibility for discontinuous constituents. Quantifiers and demonstratives, for example, may be separated from their heads, and placed in initial position, as in (12):

(12) Swampy Cree (Reinholtz 1999: 201, 204)

- a. *Niso kî-sipwêhtêwak awâsisak*
 two 3.PFV-leave.PL child.PL
 ‘The two children left.’
- b. *Awa kî-sipwêhtêw awâsis*
 this 3.PFV-leave child
 ‘This child left.’

Reinholtz argues that these modifiers appear preverbally because they are in focus position; a further indication of the discourse factors that drive syntax in Algonquian languages.

2.7 Our data and examples

We provide full sentence examples where possible, but our sources do not always provide sentences containing the relevant forms. This is partly because many of our examples come from dictionaries which only supply headwords, and partly because many of the other works cited are more focused on morphology than syntax.

The data are also unavoidably skewed towards those languages for which there are good descriptive grammars and dictionaries, as well as towards those we know best. This chapter thus serves as a preliminary survey of applicatives in Algonquian, but further empirical research is needed.

3 The ubiquitous applicative suffixes

*-amaw and *-aw

Most Algonquian languages have an applicative affix that can be traced back to Proto-Algonquian *-amaw (Bloomfield 1946: 115), illustrated in (13) with data from Menominee.¹²

(13) Menominee (Bloomfield 1928 [MGV 106], 1975)

- a. TI: *enāēsenam* ‘s/he reaches for it; moves it by hand’
 Stem: /aenaesen-/
 b. TA: *Enāēsenamowaewen anenoh omāētemōhseman eneh ohkānaeh.*
 he.hand.it.to.her.OBV this.OBV his.wife.OBV that awl
 ‘He handed the awl to his wife.’

In (13a) we first provide the surface form of the verb, with the (inflectional) TI theme sign *-am*, and below that we show its stem, /aenaesen-/. That stem becomes an applicative TA verb in (13b) with the addition of (derivational) *-amow*.

In addition, many of the languages have an applicative that Bloomfield reconstructs as PA *-aw (1946: 115), illustrated for Unami in (14):

(14) Unami (Goddard 2021: 165)¹³

- TI: |səkàpəpat-| ‘wet it’
 > TA: |səkàpəpataw-| ‘wet O2 for O1’

Both *-amaw and *-aw fit the definition of P-applicative adopted in this volume: there is a morphological marking asymmetry, there is no change to the S/A argument, and verbs in which the applicative appears license a primary object AppP (e.g. *anenoh omāētemōhseman* ‘his wife’ in [13b]).

We address three topics in the sections that follow: first (§ 3.1) we provide a thorough look at *-amaw and *-aw, showing some of the many differences in their evolution in the daughter languages. Second, in § 3.2 we look at the relationship between the two suffixes, and third, in § 3.3 we look at the status of *-aw in Blackfoot, which differs from its status in other languages.

¹² We adopt the convention in this section of using the PA form when we want to refer to a category across the family; thus *-amaw will stand for the various forms (*-amaw*, *-amow*, *-omo*, etc.) found in the daughter languages.

¹³ Goddard uses the vertical bar to enclose underlying forms.

3.1 Description of *-amaw and *-aw

(15)–(17) provide a larger set of examples containing reflexes of *-amaw from a variety of Algonquian languages.¹⁴

(15) Blackfoot -*omo* (Frantz 1991: 105)

- a. TA: *nitsíyissksipistayaawa* (stem /yIssksipist-/) ‘I tied up [your horses]’
 > TA: *nitsíyissksipistomoawa* (stem /yIssksipist-omo-/) ‘I tied it up for him’
- b. TA: *Nitsíyissksipistomoawa nitákkaawa óta’siksi.*
 I.tied.them.up.for.him my.partner his.horses
 ‘I tied his horses up for my partner.’

(16) SW Ojibwe -*amaw* (OPD)

- a. AI: *ininan* (stem /inin-/) ‘hold, handle it a certain way’
 > TA: *ininamaw* (stem /ininamaw-/) ‘hand (it) to him or her a certain way’
- b. TA: *Ningii-ininamawaa akiwenzii asemaan.*
 I.handed.it.to.him old.man tobacco
 ‘I handed the old man some tobacco.’

(17) a. Innu -*am(a)u* (Drapeau 2014: 227–228)¹⁵

- AI+O: /tshimuti-/ ‘voler’ (‘steal’)
 > TA: /tshimutam(a)u-/ ‘voler quelque chose à quelqu’un’
 (‘steal something from somebody’)
- b. Meskwaki -*amaw* (Dahlstrom 2021, Ch. 7:16)
 TI: /mešen-/ ‘catch it’
 > TA: /mešenamaw-/ ‘catch O2 for O’
- c. Myaamia -*amaw* (MPD)
 TI: /mahsenaham-/ ‘owe it’
 > TA: /mahsenahamaw-/ ‘owe it to him’
- d. Plains Cree -*amaw* (Wolfart 1973: 75)
 TI: /ātot-/ ‘tell of it’
 > TA: *ātotamawēw* (stem /ātotamaw-/) ‘he tells of it for him’

¹⁴ Some authors do not treat *-amaw as a unitary affix; we address this in § 3.2. Also note that applicatives are not formed from II verbs, presumably for the pragmatic reason that inanimates are unlikely to be subjects of verbs whose semantics would allow for applicativization.

¹⁵ Innu examples from Drapeau (2014) are given in their original orthography, which does not mark vowel length. The symbol <ñ> represents a sound which is [l] or [n] in different dialects of Innu. Translations have been supplied by the present authors. Drapeau writes the suffix under discussion as -*am(a)u* to indicate contraction it undergoes in certain contexts.

- e. Unami *-amaw* (Goddard 2021: 165)
 TI: |sōkah-| ‘pour (it)’
 > TA: |sōkahamaw-| ‘pour O2 on O1’

In general, reflexes of **-amaw* are described as creating “benefactives” (e.g. Bliss 2010, Drapeau 2014) or “double-object verbs” (e.g. Wolfart 1973; Goddard 2021). The applied object usually carries roles such as beneficiary, goal/recipient, or source, and sometimes comitative or various locative roles.

Consider next (18) and (19), which provide more examples of **-aw* applicatives:¹⁶

- (18) Menominee *-uw* (Bloomfield 1928 [BOY 008], 1975)¹⁷
 a. TI: *osēhtaw* (stem /oseht-/) ‘s/he makes it’
 > TA: *osīhtuwaew* (stem /osehtuw-/) ‘s/he makes it for him or her’
 b. TA: ... ‘s *osīhtuwacen* *omāhkesenan onīcianaehsan*.
 when.she.made.them.for.him.OBV his.moccasins her.child.OBV
 ‘... when she made moccasins for her child.’
- (19) a. Plains Cree *-aw* (Wolfart 1973: 75)
 AI+O: /nahasta-/ ‘place it right, put it away’
 > TA: *nahastawēw* (stem /nahastaw-/) ‘he places it right for him’
 b. Meskwaki *-aw* (Dahlstrom 2021, Ch. 6:5)
 AI: /pene·hke-/ ‘hunt turkeys’
 > TA: /pene·hkaw-/ ‘hunt turkeys for O’
 c. Myaamia *-aw* (MPD)
 TI: /mam-/ ‘take it, buy it’
 > TA: /mamaw-/ ‘buy it from him, take it from him’
 d. SW Ojibwe *-aw* (OPD)
 AI: /manise-/ ‘s/he harvests, cuts firewood’
 > TA: manisaw (stem /manisaw-/) ‘cut (it) as firewood for him/her’

The applied objects added by **-aw* bear the same sorts of thematic roles as those added by **-amaw*, with beneficiary and goal among the most common.

Bloomfield’s (1946: 115) description of the distribution of **-amaw* and **-aw* in PA is instructive for understanding their distribution in the modern languages: there he

¹⁶ When **-aw* attaches to a vowel-final AI stem, the stem vowel drops. There are also often stem-final vowel replacements before the various applicative suffixes; these will be evident in the examples below.

¹⁷ Bloomfield (1946: 115) describes the relationship between **-aw* and Menominee *-uw* as “phonetical-ly queer”, presumably meaning that the change of **a* > *u* is unexplained. In this example *-uw* triggers vowel harmony, resulting in the /i/ in the second syllable of the TA form.

says that *-amaw attached to TI1 stems, but *-aw attached to TI2 stems.¹⁸ This is to some extent reflected in the modern data: *-aw appears with AI stems, and it also appears with TI stems of classes 2 and 3 in the languages that have them. Table 3 provides a closer look at the distribution of *-amaw and *-aw with respect to the stems to which they attach.

Table 3: Base categories for *-amaw and *-aw.

	*-amaw					*-aw				
	AI	TI(1)	TI2	TI3	TA	AI	TI(1)	TI2	TI3	TA
Blackfoot	✓	✓			✓					
Plains Cree	✓	✓				✓				
SW Ojibwe		✓	✓			✓		✓	✓	
Menominee		✓		✓		✓		✓	✓	
Meskwaki		✓				✓		✓	✓	
Potawatomi		✓				✓		✓	✓	
Myaamia		✓				✓			✓	
Nishnaabemwin		✓	✓			✓		✓	✓	
N. East Cree		✓								
Naskapi		✓								
Innu	✓	✓								
Unami		✓				✓				

Over time, the pattern has become somewhat less clear, but the basics of the system described by Bloomfield are still visible. First, only Blackfoot allows an applicative to be derived from a TA verb. Second, languages with TI2 verbs never use *-aw for a TI1. At the same time, Nishnaabemwin and SW Ojibwe have some TI2 verbs that take *-amaw, and a few languages use *-amaw with AI or TI3 verbs.¹⁹

In some of the descriptions of applicatives formed from AIs, it is not clear whether the stems are plain AI or AI+O.²⁰ But in Plains Cree, Wolfart (1973: 75) is explicit that both *-amaw and *-aw attach to “syntactically transitive AI stems” (AI+Os), although he implies that it is less common with *-amaw. As he puts it, “This is obviously an area of extreme productivity and considerable fluctuation”.

Since reflexes of the two suffixes are found across such a wide range of Algonquian languages, they both appear to be of PA origin. But, as we have shown, their relative attachment sites are no longer completely complementary for all of the languages, and so in most cases they can no longer be considered allomorphs.

¹⁸ Bloomfield says that TI2 stems developed out of “pseudo-transitive”, or AI+O stems. Other authors (e.g. Goddard 1979: 71–72) reconstruct *-am and *-aw for TI classes 1 and 2.

¹⁹ Unami has two subtypes of TI1; Goddard (2021: 68) notates them as TI(1a) and TI(1b).

²⁰ We use “AI” as a cover term in Innu for a set of subcategories of “transitive” AI verbs which includes AI+O; see Drapeau (2014: 227–228).

At this point we turn to the relationship between *-amaw and *-aw.

3.2 The /am/ in *-amaw

In many of the languages, *-amaw attaches to all TI verbs, or primarily to TI verbs of class 1 in languages that have subclasses of TI verbs. The shorter suffix *-aw attaches to AI verbs, and in the languages that have them, to TI2 (and sometimes TI3) verbs.

At the same time, Bloomfield (1946: 99) reconstructs a theme sign *-am for TI1 verbs with third person subjects. It is natural to wonder whether this *-am accounts for the /am/ in the applicative *-amaw, especially given the existence of the applicative *-aw. That is, is *-amaw synchronically one suffix, *-amaw, or two, *-am-aw? Both analyses are found in the literature: some authors (including Bloomfield 1962 and Valentine 2001) treat it as a unitary affix, while others (e.g. Wolfart 1973; Goddard 2021; Dahlstrom 2021) treat it as consisting of the TI theme sign *-am plus a secondary final *-aw. This difference of analysis is illustrated with Plains Cree data in (20):

(20) Plains Cree (PCD)

- TI1: *âtotam* (/âtot-/) ‘s/he tells about something’
 > TA: *âtotamawêw* ‘s/he tells about (it/him) for someone’
- a. Unitary applicative suffix *-amaw*
[âtot]-amaw-êw
 [tell.about.it]-APPL-INFLECTION
- b. Theme sign *-am* + applicative suffix *-aw*
[âtot]-am-aw-êw
 [tell.about.it]-TI1.TS-APPL-INFLECTION

At first glance, it might seem like the most parsimonious analysis of *-amaw is the one shown in (20b), since it allows us to generalize *-aw across all TI subtypes. Dahlstrom’s analysis of the Meskwaki applicative takes exactly this approach, as illustrated in (21):

(21) Meskwaki *-aw* (Dahlstrom 2021, Ch. 7:16)

- a. AI: /ašike-/ ‘build a house’
 > TA: /ašikaw-/ ‘build a house for O’
- b. TI1: /mešen-/ ‘catch O’
 > TA: /mešenamaw-/ ‘catch O2 for O’
- c. TI2: /pi-tikat-/ ‘bring O inside’
 > TA: /pi-tikataw-/ ‘bring O2 inside for O’
- d. TI3: /na-t-/ ‘go after O’
 > TA: /na-taw-/ ‘go after O2 for O’

In order to claim that there is a single applicative suffix, Dahlstrom must describe its distribution as “attach[ing] to AI, TI2, and TI3 stems; with TI class 1 verbs the applicative attaches to a theme, composed of the verb stem plus the TI class 1 theme sign *-am-*” (2021, Ch. 7: 16).

There is an analytic trade-off here: on the one hand, if we claim that there is just one applicative suffix, **-aw*, this comes at the cost of complicating the statement of the types of base it attaches to (as in Dahlstrom’s account just given). On the other hand, we could simplify the statement about the type of base to which the applicative attaches (the stem in all cases), but that comes at the cost of positing two suffixes, **-amaw* for TI1 verbs and **-aw* for the rest.

Our inclination is to take the latter approach. A major consideration for us is that most Algonquianists consider theme signs to be inflectional, and the analysis represented by (20b) and (21b) places an inflectional morpheme (*-am*) inside a derivational morpheme (*-aw*).²¹ Some linguists, however, would not see this as a problem (either not embracing the distinction between inflection and derivation, or not accepting the strict relative linear ordering of the two types); cf. Bochner (1984) and LeSourd (1995).

Hoffman and Oxford (2021) suggest a third approach: that the *-am* inside derivational suffixes (like *-aw*) is a distinct morpheme, but that it is not synchronically the same morpheme as the theme sign *-am*, whatever its diachronic origin may be. We refer the reader to their paper for further discussion, and here leave the issue an open question.

3.3 **-aw* as a syntactic lookalike in Blackfoot

Although in most of the languages, **-aw* appears to be a full-fledged applicative, in Blackfoot it functions as an equipollent syntactic lookalike. Consider (22)–(24):

(22) Blackfoot (Frantz 1991: 104)

- a. TI: *nítsskiitatoo’piaawa* ‘I baked them’
Root /ihkiit-/ + TI final /-watoo/
- b. TA: *Nítsskiitqawaistsi nitána.*
nit-ihkiit-q-a:-wa-aistsi n-itán-wa
1-bake-BEN-DIR-3SG-PRO 1-daughter-3SG
‘I baked them for my daughter’

²¹ Hoffman and Oxford (2021: 136) point out that there has also been some discussion in the literature of whether theme signs should be treated as inflectional or derivational; see the references cited in their paper.

(23) Blackfoot (BD, Taylor 1969: 249)

AI: *innootaa* ‘butcher’

> TA: */-Innooto-/* ‘butcher (for someone)’

(24) Blackfoot (BD)

AI: *ohpommaa* ‘buy (something)’

> TA: *ohpommō* ‘buy for, buy from, trade to’

The first pair of examples above show the initial /ihkiit-/ ‘bake’; it is followed by a TI final in (22a), and by the benefactive TA final *-o* (*-aw) in (22b). In (23)–(24) the AI verbs both contain the AI final *-aa*; this is replaced by *-o* in the TA forms. Thus the BC and the AC are both marked, with a common initial in each case.

4 Other affixal applicatives

In addition to *-aw and *-amaw, there are numerous other, less common applicative suffixes listed for many of the languages. These also satisfy the criteria for a true applicative. Space does not permit full description of all of these affixes; instead, we provide an overview of the more frequently noted ones.

We have organized these by the initial consonant(s) of the suffix; this is purely for convenience, and no claims about cognacy are intended.

4.1 /-st/ applicatives

This set of applicative suffixes, illustrated in (25)–(28), occurs in at least four languages across the Cree–Montagnais–Naskapi (CMN) continuum.

(25) Innu *-sht* (TI) / *-shtu* (TA) ‘circumstantial’ (Drapeau 2014: 229–230)²²

a. AI: *Mañi atimikapu*

Marie she.stands.with.back.turncd

‘Marie est debout de dos.’ (‘Marie is standing with her back turned.’)

b. > TI: *nitatimikapush̄ten katshitapatakanit*

I.stand.with.back.to.it television

‘Je suis debout dos à la télévision.’

(‘I am standing with my back to the television.’)

²² In Drapeau (2011: 61) these are given as *-štaw* / *-štam*, and defined as ‘Locational Reference’.

- c. AI: *Mañi nipepu*
 Marie she.sits.up.watching
 ‘Marie passe la nuit assise à veiller.’
 (‘Marie spends the night watching.’)
- d. > TA: *Mañi nipepishtueu utauia*
 Marie she.sits.up.watching.over.him her.father
 ‘Marie passe la nuit à veiller son père.’
 (‘Marie spends the night watching her father’.)

(26) Western Naskapi “on behalf of” (Brittain 2001: 4)

AI > TA: *-stimuw*

(27) Northern East Cree “benefactive” (Collette 2014: 90–91)

AI > TI: *-stim*

AI > TA: *-staw*

AI > TA: *-stimaw*

(28) Plains Cree “action on a general goal with a transitive animate beneficiary”
 (Wolfart 1973: 75)

AI > TA: *-stamaw*

This particular set of applicatives may be composed of more than one suffix, either synchronically or diachronically. Plains Cree, for example, has a suffix *-st* which derives a TI verb from an AI verb, and it seems plausible that *-stamaw* is *-st* + *-amaw*. But Wolfart argues that this is not the correct analysis since the specific inanimate object that would be expected from the addition of *-st* is not present in the sense of the derived TA verb (note his definition “action on a general goal”). Brittain (1993: 76) gives a suffix for Innu which is parallel to the Plains Cree one, but different from the ones Drapeau gives, *-shtamau*. She explicitly analyzes it as “the unidentified *-sht-*, the TI theme sign *-am-* and the applicative *-au-*”. Brittain (2001: 4) likewise treats Western Naskapi *-stimuw* as composed of three suffixes, concluding that *-st* is a secondary TI final which accounts for the distinctive semantics, ‘on behalf of’. We leave the internal structure of these suffixes an open question.

4.2 /-ht/ applicatives

A few languages have applicatives in /-ht/, as follow:

(29) Unami | -ht | (TI[1a]), | -htaw | (TA), | -htam | (TA) “applicative” (Goddard 2021: 164)

- a. AI: | apĩ- | ‘be (somewhere)’
 > TI: | apĩht- | ‘be in’
 > TA: | apĩhtaw- | ‘be in’

- b. AI: *tkáwsu* 'he is gentle, good-natured, mild, well-minded'
 > TA: |*təkawəsīhtam-*| 'regard favorably'

(30) Meskwaki “applicative” (Dahlstrom 2021, Ch. 7: 17–18)

- AI > TI: *-ht*
 AI > TA: *-htaw*
 AI > TA: *-h*

These suffixes all attach to an AI stem, and form both TA and TI applicatives. In the Meskwaki case, Dahlstrom pairs the suffixes *-ht* and *-htaw*, which generally add a goal argument, and *-ht* and *-h*, “associated with a range of thematic roles” (2021, Ch. 7: 18).

4.3 /-m/ applicatives

Many of the languages have an applicative of the form *-m* (or in Blackfoot, *:-m*), which appears in the comitative construction discussed in § 7. But the suffix appears on its own without comitative meaning in some cases as well.²³

(31) Blackfoot *:-m* (TA) (BD)

- AI: *okska'si* 'run'
 > TA: *yiistapokska'siim* 'flee, run away from'

(32) Menominee *-m* (TA) “secondary suffix” (Bloomfield 1962:334)

- AI: *kemōtaew* 's/he steals'
 > TA: *kemōtemaew* 's/he steals from him/her'

(33) Unami |*-m*| (TA) “applicative” (Goddard 2021:164)

- AI: |*kīwīkē-*| 'go visiting'
 > TA: |*kīwīkam-*| 'visit'

The few examples found are formed from AI verbs and have animate goal and source objects.

²³ Thanks to Natalie Weber for bringing the Blackfoot example to our attention. In (31), *yiistap-* is a preverb.

4.4 /-t/ applicatives

A number of languages have applicatives that either consist solely of /-t/ or start with /t/, as illustrated in (34)–(38).

- (34) Menominee *-t* (TI) “action [. . .] upon an object” (Bloomfield 1928 [HMM:030–031], 1962: 342)

- a. AI: *mēcemāēhkaew* ‘s/he prepares food for storage’
 b. > TI: *eneq-peh enoh metāēmoh māwaw*
 then that woman all
 kew-mēcemāēhkatah eneh mēcemēhsaeh
 HAB-she.prepare.it.as.stored.food that meat
 ‘then the woman would preserve all that meat and store it away’

- (35) Unami “applicative” (Goddard 2021: 163)

AI > TI(1a): | -t |

- (36) Western Naskapi “benefactive” (Brittain 2001: 4)

AI > TA: *-tuw*

- (37) Northern East Cree “applicative” (Collette 2014: 92)

AI > TI: *-tut*

- (38) Innu “applicative” (Drapeau 2014: 230)²⁴

AI > TI: *-tut*

AI > TA: *-tutu*

The Menominee and Unami suffixes each have a matching suffix which creates TA verbs, but does not start with /-t/. In Menominee it is /-N/ and in Unami it is | -l |. These both result from a merging of PA *-θ and *-l (Bloomfield 1946: 87; Goddard 1980) and subsequent changes, so they are likely cognate.

For Western Naskapi, again, Brittain (2001: 4) treats the form given as composed of multiple suffixes: *-t-uw*. She claims that the applicative *-uw* is barred from attaching to an AI verb, so the TI final *-t* attaches to create a non-occurring TI stem, allowing *-uw* to follow.

²⁴ These are given as *-ttam* and *-ttaw* in Drapeau (2011) and called the “generalized applicative”. By this, she means that they add an AppP with a “semantically unspecified” thematic role (2011: 58), in contrast to other more specified applicative suffixes in the language.

4.5. Additional applicative suffixes

In this section we list, by language, suffixes that do not fall into the classes above.

- (39) Arapaho (Cowell and Moss 2008: 148–150)
 AI > TI: *:-t* “applicative”
 AI > TA: *:-ton* “applicative”
- (40) Blackfoot (Taylor 1969: 253)²⁵
 AI > TI: *-ISkiSt* “transitive inanimate”
 AI > TA: *-ISkiSto* “transitive animate”
- (41) Menominee (Bloomfield 1962: 342, 355)
 AI > TA: */-N/* “action [. . .] upon an object” (matches TI *-t*)
 AI > TI1: *-qt* “secondary suffix”
 AI > TA: *-qtaw* “secondary suffix”
- (42) Meskwaki (Dahlstrom 2021, Ch. 7: 18)
 AI > TI: *-not* “applicative”
 AI > TA: *-notaw* “applicative”
- (43) Myaamia (Costa p.c.)²⁶
 AI > TI: *-ilotam* “applicative”
 AI > TA: *-ilotaw* “applicative”
- (44) Unami (Goddard 2021: 163–166)
 AI > TA: *|-l|* “applicative” (matches TI *|-t|*)
 AI > TA: *|-lax|* “benefactive”
 AI+O > TA: *|-mal|* “applicative” (only one example)

5 The syntax of affixal applicatives

Recall from Section 2.5 that there are a number of factors which distinguish an O1 and an O2 in Algonquian languages. Monotransitive verbs (the TA and TI categories) select for the animacy of their (primary) object, for example, while ditransitives restrict their

²⁵ The author says, “It is likely that more than one morpheme is present, but if so, their identities are unknown” (1969: 253).

²⁶ The Meskwaki suffixes in (42) and the Myaamia in (43) are likely cognate.

O2 to third person. Also recall that the object of an AI+O verb has been shown to be an O2 by numerous authors (e.g. Rhodes 1990).

With that background in mind, consider the two primary monotransitive sources for affixal ditransitives, TI and AI+O stems. TI verbs by definition have a third person inanimate base object, which serves as the O2 in the ditransitive. The object of an AI+O likewise serves as the O2 if the verb is made ditransitive. An important point about the O2 of a ditransitive, though, is that it is not limited in animacy, even when derived from a TI verb:

(45) Menominee (Bloomfield 1962: 48)

- a. *Wāwanon* *kepītuan*.
egg.INAN.PL I.bring.them.to.you
'I bring you eggs.'
- b. *Anōhkanak* *kepītuan*.
raspberry.AN.PL I.bring.them.to.you
'I bring you raspberries.'

The examples in (45) contain an applicative built off the TI2 verb *pītaw* 's/he brings it (inan.)' with the applicative suffix *-uw* (and subsequent contraction). (45a) shows an inanimate O2, 'eggs', while (45b) shows an animate O2, 'raspberries'.

The examples in (46), from Meskwaki, are parallel, but with an AI+O verb:

(46) Meskwaki (Dahlstrom 2009: 231)

- a. *ahpe-nemo-wa* *na-tawino-n-i*
depend.on-3.IND medicine-INAN.SG
'He relies on the medicine.'
- b. *ahpe-nemo-wa* *o-si-me-h-ani*
depend.on-3.IND his-younger.sibling-AN.OBV.SG
'He relies on his younger brother.'

Thus, a monotransitive TI verb has an inanimate O1, necessarily third person, which becomes the O2 of a derived applicative, losing the animacy restriction in the process. An AI+O verb has an O2 object, restricted to third person but unrestricted in terms of animacy, and it remains the O2 if the AI+O undergoes applicativization.

Turning to word order, we pointed out in Section 2.6 that discourse factors like topic and focus have been shown to drive the syntax of simple clauses in Algonquian languages, and that many linguists have argued that there is no "basic" word order that can be described in terms of subject, object, and verb. When it comes to ditransitives, claims differ. Dahlstrom (2009: 226) and Bruening (2001: 59) both find that the most common order is V O1 O2. As Dahlstrom points out, this is consistent with the unmarked position for non-topic and non-focused arguments.

Large, tagged corpora are not available for most Algonquian languages, so a thorough investigation of the syntax of applicatives requires further resources and

research. Furthermore, as we noted earlier, most of the works that describe applicatives in Algonquian languages focus on the morphology, and often do not give an example in a sentence. But a survey of the data containing applicatives which was available to us likewise shows a skew towards postverbal positioning of secondary objects, although the full picture indicates that word order in these constructions is no more constrained than word order in corresponding monotransitive constructions.

To this point we have seen the orders V O1 O2 (in [13b], [15b], and [16b]), V O2 O1 (in [18b]), V O1 (in [22b], [25b], [25d], etc.), and O2 V (in [45a–b]). In total, from the articles and grammars we surveyed, we were able to collect 99 sentences with one or more overt objects in a construction with an applicative suffix.²⁷ This is purely a convenience sample, but even this small number of examples showed every possible ordering of object and verb. Table 4 illustrates.

Table 4: Applicative construction word orders.

O1 < V		O2 < V		V < O1		V < O2	
O1 O2 V	1	O2 O1 V	1	V O1	6	V O2	29
O1 V O2	8	O2 V	3	V O1 O2	20	V O2 O1	27
		O2 V O1	4				
	9		8		26		56

Table 4 shows that it is most common for object(s) to appear postverbally, consistent with unmarked word order. Clearly, among such examples, V O2 (O1) word order is the most common, but we hesitate to draw any firm conclusions from the data. This is in part due to the small size of our sample, but also due to the possibility of elicitation bias, since so many of the examples come from articles containing what we believe to be sentences elicited in isolation. What we can conclude is that word order in Algonquian affixal applicative constructions is fairly free, with all possible orderings of verb and object(s) attested.

The combination of the employment of preverbal topic and focus positions and the fact that overt nominals are often omitted account at least in part for the fact that the applicative and lookalike constructions we have described above do not require a particular position for an AppP.

6 Relative root constructions

Algonquian languages have a class of initials known as RELATIVE ROOTS, which, as mentioned in Section 2.5, license an oblique argument in the clause (Dahlstrom 2014: 57–60;

²⁷ 36 of the 99 sentences are in Menominee, due to our easy access to that data.

Costa 2017: 363–367). Bloomfield defined relative roots as a special class of initials “that refer to an *antecedent* in the phrase” (1946: 120, emphasis in original). The relative roots that he reconstructed are exemplified in Table 5, below, with the forms in a sample of Algonquian languages.²⁸

Table 5: Relative roots.

Proto-Algonquian	PCree	Men	Nish	Mesk	Unami	Gloss (after Dahlstrom 2014)
*eθ-	<i>is-/it-</i>	<i>aeN-</i>	<i>iN-</i>	<i>in-</i>	<i>al-</i>	goal, manner
*went-	<i>oht-</i>	<i>oht-</i>	<i>ond-</i>	<i>ot-</i>	<i>want-</i>	source, cause, reason
*axk(w)-	<i>isko-</i>	<i>ahkw-</i>	<i>akw-</i>	<i>ahkw-</i>	<i>sahk-</i>	so long
*tahθ(w)-	<i>tahto-</i>	<i>tahNw-</i>	<i>daS(w)-</i>	<i>tasw-</i>	<i>(-ən)tax-</i>	so many, so much
*taθ-	<i>tat-</i>	<i>taN-</i>	<i>daN-</i>	<i>tan-</i>	<i>(-ən)tal-</i>	stationary location
*axpi-ht-		<i>ahpēht-</i>	<i>apiit-</i>	<i>ahpi-t-</i>		degree

Relative roots, like all initials, are the first morpheme of a primarily derived stem, as described in Section 2.2. Like many initials, they also have corresponding preverb forms, shown in Table 6 for Odawa (preverbs are conventionally joined with a hyphen to the verb stem, and are in boldface here).²⁹

Table 6: Odawa relative roots and corresponding preverbs (Rhodes 2006: 11).

Relative Root		Corresponding Preverb	
<i>iN-</i>	‘to, like’	<i>zhi-niikmod</i>	‘growl like so’
<i>ond-</i>	‘from, because of’	<i>nji-googiid</i>	‘dive from there’
<i>akw-</i>	‘length’	<i>ko-gkenmaad</i>	‘know s.o. for so long’
<i>das(w)-</i>	‘number’	<i>dso-bboon’gizid</i>	‘be so many years old’
<i>daN-</i>	‘at’	<i>dzhi-siboodood</i>	‘sharpen s.t. on it’
<i>apiit-</i>	‘extent’	<i>piichi-ngadenmaad</i>	‘know s.o. so much’

We argue that some relative root constructions are X-applicatives and others are looka-likes. We begin by discussing relative preverbs, which we analyze as true applicatives. For reasons of space, we omit discussion of the syntax of relative root constructions, but see Rhodes (2010) for a thorough overview of the topic in Ojibwe.

²⁸ Abbreviations in the table: PCree = Plains Cree, Men = Menominee, Nish = Nishnaabemwin, Mesk = Meskwaki. See Appendix A for sources. Orthographic representations and glosses have been updated to follow modern work.

²⁹ Nishnaabemwin and Odawa are roughly the same varieties of Ojibwe; see Valentine (2001: 1–3) for discussion.

6.1 Relative preverbs as X-applicatives

In their preverb forms, relative roots serve an applicativizing function. In each set of examples below, from Blackfoot, the verbs in (a) contrast with the verbs in (b), which contain the relative preverb *it-* ‘then, there’ (underlined in the examples). In both cases, the preverb is an additional overt marker that distinguishes it from the base construction.

(47) Blackfoot (Bliss 2014: 2)

a. *Anna Leo áíkskima.*

ann-wa Leo a-íkskima
DEM-PROX Leo IPFV-hunt.AI
‘Leo hunts.’

b. *Anna Leo itáíkskima omi itáo’tsstoyi.*

ann-wa Leo it-a-íkskima om-yi itao’tsstoyi
DEM-PROX Leo then-IPFV-hunt.AI DEM-INAN November
‘Leo hunts in November.’

(48) a. *Nitsooyi.*

nit-ioyi
1-eat.AI
‘I ate.’

b. *Nitsitsooyi anni itáisooyo’pi.*

nit-it-ioyi ann-yi itaisooyo’p-yi
1-there-eat.AI DEM-INAN table-INAN
‘I ate at the table.’

In the forms with relative preverbs, the S/A participant is unchanged, the verb is marked with respect to the BC, and the AC requires an additional phrase. We treat this additional phrase as an oblique, following Dahlstrom’s definition given in Section 2.5 above.³⁰

The semantics of that additional phrase depends on the relative preverb used. The example above contained Blackfoot *it-*, adding a time or location. The Ojicree examples

³⁰ There is some disagreement in the literature over the status of this type of argument. We follow Dahlstrom (2014), whose definition of ‘oblique’ was given in Section 2.5 above. Recall that for her, relative roots (and by extension, relative preverbs) are in fact the most common encoding of oblique arguments in Algonquian languages. However, see Rhodes (2006), who argues that relative root complements are not only distinct from oblique arguments, but are a unique type of argument distinct from all others. See also Kim (2020) for a formal treatment of oblique nominal constructions in Blackfoot.

below illustrate the relative preverbs *onci-*, which adds a source or reason, and *ahpiihci-*, which licenses a degree expression.³¹

- (49) Ojicree (Slavin 2012: 73)
- a. *Waahsa onci-piishaawak.*
 far from-they.come.AI
 ‘They came from far away.’
 - b. *Niishitana ta-ahpiihci-tahkaayaa.*
 twenty FUT-such-be.cold.II
 ‘It will be twenty degrees below zero.’

Relative root constructions are still grammatical if the applicative phrase is not present in the sentence, as long as the oblique argument is understood in context.³²

- (50) Nishnaabemwin (ND; speaker Angeline Williams)
- Mii dash gaa-izhi-waabmigod*
 and.so IC.PAST-there-it.see.him/her.TA
 ‘So now it saw him there.’

When the applicative phrase is not overt, the interpretation is “one of definite pronominal/deictic reference” (Rhodes 2006: 13).

6.2 Relative roots as lookalikes

As initials, relative root constructions are syntactic lookalikes rather than true applicatives. Verbs with relative roots are not built on fully-derived verbs, so no well-formed construction can be identified as the BC. There are often verbs that are parallel in structure and meaning, differing only in the initial chosen, but since the initial component is required for a well-formed stem, there is no alternation.

Consider the following Menominee example, which contains a relatively pragmatically neutral TA verb meaning ‘chase, pursue’:

- (51) Menominee (Bloomfield 1928 [LNX 079])
- Wōh, nepāēmenaesehopah ayāpāew!*
 whew but.I.was.chasing.it.AN stag
 ‘Whew, but I was chasing a stag!’

³¹ Ojicree is a dialect of Ojibwe (also known as Severn Ojibwe).

³² Initial change (IC in the gloss of [50]) is a grammatically conditioned morphological process of ablaut (and in some Algonquian languages, other processes like infixation) that occurs at the left edge of some verb forms; see Costa (1996).

This verb consists of the initial /paem-/ ‘straight-line movement’ and the TA final /-naesehw/ ‘chase’. Many verbs with the ‘chase’ final can be formed by substituting different initials:

(52) Menominee (Bloomfield 1975)

- a. *pītenaesehaew* ‘s/he chases him/her/it (an.) here’; initial /pīt-/ ‘come’
- b. *onēnesehāew* ‘s/he gets, chases him or her out of bed’; initial /on-/ ‘rise, lift, up’
- c. *matāpīnesehāew* ‘s/he chases him/her/it (an.) down to the water’s edge’; initial /matāpī-/ ‘down toward water’

Combining the relative root /aeN-/ ‘to there, in that way’ with this final creates *enāesehaew* ‘s/he chases, drives him, her, it (animate) there, towards there’, exemplified in (53).³³

(53) Menominee (Bloomfield 1928 [BOY 123])

Wahkītāhkyah eneq kew-enāesehotituaq.
 hilltop it.is.there HAB-they.chase.each.other.there
 ‘It was there that they chased each other to the summit’

Here, the relative root /aeN-/ of the AC licenses an oblique expressing goal; in this case ‘hilltop’. Yet, as we have shown, there is no corresponding BC that lacks the relative root.

There are a small number of relative root verbs which look at first glance like true applicatives. Consider (54):

(54) Menominee (Bloomfield 1975)

- a. *ācemow*
 /āt-e-mi/
 /tell.of-EP-by.vocal.sound.AI/
 ‘s/he narrates, reports an event, tells a story’
- b. *enācemow*
 /aeN-ācemi/
 /in.that.way-narrate.AI/
 ‘s/he tells a story, narrates in that way’

It might look from the surface forms like (54a) is the BC for (54b), but *ācemow* is made up of an initial *āt-* plus a final *-mi*, while *enācemow* is made up of the relative root *aeN-* plus

³³ The verb in (53) has undergone secondary derivation, adding a reciprocal final and becoming morphologically intransitive; this has no bearing on the relative root construction being discussed.

the final *-ācemi*. While *-ācemi* is diachronically related to the verb *ācemow*, we do not see this as a synchronic relationship, and so (54a) cannot be the BC for (54b).³⁴

7 Comitative constructions

Many Algonquian languages have a comitative construction, which adds another participant to the action described by the verb. Most of these constructions are P-applicatives, although at least one (described below) is not an applicative at all. As with the relative root construction, the comitative may contain either an initial or its corresponding preverb, but in addition there may also be a final, *-w* or *-m*. Table 7 illustrates:

Table 7: Elements of the comitative.

LANGUAGE	FORM(S)	LANGUAGE	FORM(S)
Final only		Initial + final	
Arapaho	<i>-w</i>	Menominee	<i>wēt- + -m</i>
Initial only		Meskwaki	<i>wi-t- + -m</i>
Plains Cree	<i>wîcê(w)-</i>	Nishnaabemwin	<i>wiid- + -m</i>
Swampy Cree	<i>wît-</i>	Unami	<i>wît- + -m</i>
Menominee	<i>wēt-</i>	Proto-Algonquian	<i>*wiit- + *-m</i>
Meskwaki	<i>wît-</i>		
Preverb only		Preverb + final	
Plains Cree	<i>wîci-</i>	Blackfoot	<i>ohpok- + -m</i>
Menominee	<i>wēc-</i>	Arapaho	<i>niit- + -w</i>
Unami	<i>wiči-</i>	Swampy Cree	<i>wîci + -m</i>
		Meskwaki	<i>wi-čī- + -m</i>
		Nishnaabemwin	<i>wiiji- + -m</i>
		Innu	<i>wîci- + -m</i>
		Unami	<i>wiči- + -m</i>
		Proto-Algonquian	<i>*wiiči- + *-m</i>

As the table shows, most of the languages require a bipartite construction to create a comitative, although some can form it with just the preverb or the final.

Taking first the case with a final only, Arapaho adds *-w* to an intransitive verb of joint action such as that shown in (55a) to produce a transitive example like the one in (55b):

³⁴ There are differences of opinion among Algonquianists on what counts as synchrony and what as diachrony; we follow Macaulay and Salmons (2017) here.

(55) Arapaho (Cowell and Moss 2008: 148)³⁵

- a. *ceehyóootí3i'*
ceehyoooti-3i'
1C.quarrel.AI-3PL
'They are quarreling'
- b. *ceehyóootiibé3en*
cehyoootiiw-e3en
1C.quarrel.TA-1SG>2SG
'I am quarreling with you'

It is not clear, however, if an overt AppP could appear with this construction.

Just like relative roots, when the comitative construction involves only an initial, no BC can be identified, because any potential alternates show the same level of morphological complexity. These verbs tend to be translated as 'do X together', and we do not consider them applicatives. But in some of the languages, such as Menominee, use of the initial plus the final *-m* does create an applicative:

(56) Menominee (Bloomfield 1975)

- a. *wēhpaew*
/wēt-pāē/-w
/along.with-sleep.AI/-3
's/he sleeps with someone, with people' (AI)
- b. *wēhpemaew*
/[wēhpae]-m/-āew
sleep.with-APPL-3>3OBV
's/he sleeps with him, her, it (animate)' (TA)

Here, the BC (56a) is intransitive with an indefinite object, and contains the relative root *wēt-*. But the AC (56b) adds a suffix and the person slept with becomes the primary object of an applicative transitive verb.

Use of the preverb alone might count as a true applicative in some of the languages, but unfortunately the examples we have lack an AppP, so we cannot be sure of their status. However, when the comitative involves a preverb and the relevant final, the resultant construction is a true applicative, as seen in (57):

³⁵ The symbol <3> in Arapaho stands for /θ/.

(57) Arapaho (Cowell and Moss 2008: 370)

- a. *héétnií3kóohúno'*
 eti-niit-i-koohu-no'
 IC.FUT-with-EP-run.AI-1PL.INCL
 'We will run together' (AI)
- b. *héétnií3kóohúúwoot híbio*
 eti-niit-i-koohu-w-oot i-bi[h]-o
 IC.FUT-with-EP-run-TA-3SG>3OBV 3SG-older.sister-OBV
 'S/he will run with his older sister.'

(57a) contains the preverb /niit-/ 'with' combined with the final 'run', forming a verb of joint action. However, use of /niit-/ and the suffix -w, as in (57b), makes the added participant an O1, creating the comitative applicative construction.

Much more work is clearly required on the comitative construction across the family.

8 Relational verb constructions

The relational is a valence-neutral morphological lookalike construction found primarily in the CMN languages.³⁶ That is, it is morphologically marked with respect to a base construction, but it does not change the valence of the verb. Junker describes relational forms as verbs "where the person affected by the event is in the background", and adds that "The relational construction does not increase the syntactic valency of verbs. Rather it registers the presence, in the universe of discourse, of additional third-person participants" (2003a: 319). Consider (58), where the stems are bracketed and the relational marker -w is underlined:³⁷

(58) Plains Cree (Wolfart 1973: 60)

- a. *ēkwa ētokwē ē-[napatēstāwikē]-w-iht*
 then I.guess IC-[build.lean-to.AI]-REL-INDEF.ACT
 'Then, I guess, a lean-to was built for her.'

³⁶ Goddard (1995: 141–146) describes a similar construction in Meskwaki. Additionally, Possessor Raising is found in e.g. Meskwaki (Dahlstrom 2021, Ch. 7: 20–22) and Mi'kmaq (Hamilton 2017; Denny et al. 2021); the latter has been called a relational by Hewson (1991: 25–26), but we leave the relationship between these constructions and the relational for future research.

³⁷ Segmentation and analysis has been added to these examples and the ones that follow.

- b. *tāpwe* [matōtisānihkē]-w-ān
 indeed [build.sweat-lodge.AI]-REL-INDEF.ACT
 ‘Accordingly, a sweat-lodge was built for him.’

Both of these examples are in the indefinite actor form, generally translated as an agentless passive. But note that both also have a benefactive, the presence of which is only indicated by the relational *-w* (and indeed, cannot be indicated by an AppP). These are the “ghost participants” referred to in the introduction.

In the next section we explore the most commonly-described relational construction, based on AI and TI stems. In § 8.2 we show how, in Innu, a TA verb with an inanimate subject may also participate in the relational. In § 8.3, we discuss a similar construction containing TA verbs with animate subjects.

8.1 Canonical relationals: Form, function, and characteristics

(59) and (60) exemplify non-relational and relational forms of independent order AI and TI verbs, respectively, for purposes of comparison.

- (59) Western Swampy Cree (Cenerini 2014: 35)

- a. *ni*-[*nipâ*]-*n*
 1-[sleep.AI]-LCL
 ‘I sleep’
 b. *ni*-[*nipâ*]-w-ā-*n*
 1-[sleep.AI]-REL-TA.DIR-LCL
 ‘I sleep in relation to him/her/them.’

- (60) Western Swampy Cree (Cenerini 2014: 35)

- a. *ni*-[*wâpaht*]-ē-*n*
 1-[see.TI]-TI.TS-LCL
 ‘I see it.’
 b. *ni*-[*wâpaht*]-am-w-ā-*n*
 1-[see.TI]-TI.TS-REL-TA.DIR-LCL
 ‘I see it in relation to him/her/them.’

These examples illustrate the morphological marking asymmetry of the construction with the absence vs. presence of *-w*. The rest of the morphology appears to be drawn from multiple paradigms, and consequently it is difficult to fit relationals into any single category in opposition to other verb forms. Figure 1 provides a template for AI and TI relational verbs; below that, we walk through each position.

	1	2	3	4
AI(+O) stem		relational -w	TA TS -â/-ê	person
TI stem	TI TS -am	relational -w	TA TS -â/-ê	person

Figure 1: Relational verb templates: AI and TI Verbs.

Position 1: Canonical relational verbs are built on an AI, AI+O, or TI base. In the latter, the relational marker follows the TI theme sign *-am*. This theme sign has a different distribution with relational verbs in the independent order, though, than it does with non-relational verbs in that order: it only appears in forms with third person subjects in non-relational verbs, but appears in forms with any subject in relational verbs. (Compare [60a] and [60b].)

Position 2: This suffix is generally considered the main marker of the relational participant, always an animate third person. *-w* marks third person across many other paradigms in Algonquian languages as well (although it is not always restricted to animate arguments).

Position 3: This suffix appears to be the TA independent order direct theme sign. In TA verbs in most of the CNM group, this theme sign is *-â* in forms with first and second person subjects acting on third person objects, and *-ê* in third on third obviative forms, and it has the same distribution in relational verbs. Many authors treat this theme sign in non-relational verbs as agreement with a third person object; here, it could be said to agree with a third-person participant present in the discourse but not the clause. (We address the transitivity of the relational construction directly below.)

Position 4: A marker for person of subject follows the TA theme sign. In the independent relational it is the same as AI person marking, while in the conjunct relational it parallels TA person marking.

Despite the presence of the TA theme sign in the construction, there is disagreement in the literature over the transitivity of relational verbs. Drapeau (2014: 248–249) concludes that they are transitive because of the (notional) presence of a third person object. However, this analysis requires *-w*, an inflectional suffix, to change lexical category, which inflectional morphemes are not generally believed to do. If we were to treat relational *-w* as derivational, though, it would follow an inflectional morpheme (the TI theme sign *-am*), which (as we have discussed in § 3.2) is at least an atypical relative ordering.

Junker (2003a:318) argues that the addition of the relational suffix does not change valence: an AI relational verb remains intransitive and a TI relational verb remains monotransitive with an inanimate object. She supports this by showing that it is ungrammatical to add an overt object corresponding to the participant marked by the relational *-w*.

Cenerini takes a more nuanced view of the transitivity of the construction, saying that “by acknowledging a second animate participant in the discourse, the relational verb takes on some transitive animate (mono- or ditransitive) properties, without being

fully transformed into one” (2014: 44). She suggests instead that transitivity forms a continuum, as illustrated in Table 8:

Table 8: Cline of transitivity (Cenerini 2014: 42).

Intransitivity	↔	Transitivity	↔	Ditransitivity
AI non-relational	AI relational	TI non-relational	TI relational	Applicative <i>-amaw</i>

That is, in her view, the AI relational is not completely transitive, and the TI relational is not completely ditransitive.

Despite the ungrammaticality of the presence of an overt AppP, relational verbs do cooccur with the kinds of phrases expected of their base forms: a locative in the case of an AI (61) and an inanimate object in the case of a TI (62). Significantly, though, these nominals are possessed in each case, and the possessor is the participant singled out by the relational.³⁸

(61) East Cree (Junker 2003a: 32)

Nipâ-w-e-u *u-nipewin-iyi-hch*
 sleep.AI-REL-TA.DIR-3 3-bed-OBV-LOC
 ‘S/he sleeps in his/her (someone else’s) bed.’

(62) East Cree (Junker 2003a: 32)

Wâpahtam-w-e-u *u-mûhkumân-iyû*
 see.TI-REL-DIR-3 3-knife-OBV
 ‘S/he sees his/her (someone else’s) knife.’

As these examples show, one feature of the construction is that it enforces disjoint reference between the subject and the relational participant.³⁹ In (61), the possessor of the bed must be distinct from the subject, and in (62), the knife must belong to someone else. When there is coreference between a possessor in this position and the subject of the verb, the relational is not grammatical.

Relational verbs are also distinct from TA verbs in other ways. First, the inflection following the TA theme sign in the independent order is AI/TI inflection, but it is TA inflection in the conjunct order. Second, an overt inanimate object may be present in a TI relational construction (whether it is analyzed as the primary object or not), which is not possible in a non-relational TA construction. Third, although the added participant

³⁸ Junker discusses interactions between the obviative and the relational at length. We omit this due to space considerations.

³⁹ Junker (2003a: 319) says that for East Cree, the relational form must be used to express disjoint reference. Cenerini (2018: 96), however, shows that it is not obligatory in Swampy Cree when expressing disjoint reference.

is animate (as one would expect with a TA verb), it is restricted to third person animate. This is reflected in the TA theme signs (*-â/-ê*) that appear in the construction. Unlike true TA verbs, though, relationals based on AI or TI verbs do not allow the inverse theme sign, nor inverse constructions (although see § 8.2 below).

Three contexts for use of the relational are reported in the literature. The first, which adds reference to a possessor, has been demonstrated above in (61)–(62). In such cases, the relational picks out an animate third person possessor of an inanimate object as more salient than the object itself.⁴⁰

A second context for relationals is cross-clausal, “in the matrix clause when the actor of the subordinate verb is a third person, and in the subordinate clause when the actor of the main clause is a third person” (Cenerini 2014: 53).⁴¹ (63)–(64) illustrate:

(63) Innu (Drapeau 2014: 245)

Nimishkamuan passikanñu Pieñ ka natuapatak
I.find.it.REL rifle Pierre SUB.PAST he.look.for.CONJ

‘Je trouve le fusil que Pierre cherchait.’ (‘I find the rifle that Pierre was looking for.’)

(64) Innu (Drapeau 2014: 248)

Nitshisseñimiku eka iañimishuk
she.knows.about.me NEG I.am.strict.CONJ.REL

‘Elle sait de moi que je ne suis pas sévère.’ (‘She knows of me that I am not strict.’)

In (63) the third person subject of the subordinate clause is marked by the relational *-u* on the verb in the main clause (‘find’), while in (64) the third person subject of the main clause is highlighted by the relational in the subordinate clause (‘be strict’).

Finally, Junker reports a third context for the relational in East Cree, which she calls the “presentative”, meaning that the action happens “in the presence of someone else” (2003a: 324).⁴² Consider (65):

(65) East Cree (Junker 2003a: 325)

Ni-wâpahtam-w-â-n mistiku-yû.
1-see.TI-REL-DIR-1 wood-OBV

‘I see a stick (in the presence of him/her).’

⁴⁰ When there is an overt possessor, it is part of the possessive phrase, rather than a separate argument. For discussion of the parallels between relational verbs and external possessor constructions, see Cenerini (2018).

⁴¹ Cenerini (2014: 45) also notes that the relevant third person could appear in a different sentence than the one containing the relational.

⁴² Cenerini was not able to find examples of this in Swampy Cree (2014: 89).

Junker says that use of (65) might imply that the stick was located near some other person or that another person was present who did not see the stick.

8.2 TA relationals with inanimate subjects

Drapeau (2014: 246–247) reports that in Innu, the relational can also occur with a TA verb with an inanimate subject. Figure 2 shows the parallels in structure between such TA relationals and the more widely-described types. (66) provides an example.⁴³

	1	2	3	4
AI(+O) stem		relational -w	TA TS -â/-ê	person
TI stem	TI TS -am	relational -w	TA TS -â/-ê	person
TA stem	TA TS -(i)ku	relational -u	TA TS -â	person

Figure 2: Relational verb templates: AI and TI verbs; TA verbs with inanimate subject.

(66) Innu (Drapeau 2014: 246)

- a. *Nipishtaukun utapan*
it.hits.me car
‘Une auto me frappe.’ (‘A car hit me.’)
- b. *Nipishtaukuan Pieñ utapan*
it.hits.me.REL Pierre car
‘L’auto de Pierre me frappe.’ (‘Pierre’s car hit me.’)

Figure 2 shows that this type of relational has the same basic structure as the other types. The theme sign in position 1 is the inverse -(i)ku because the forms have inanimate subjects. The second theme sign, in position 3, is restricted to -â because the construction does not permit third person undergoers of the action: a sentence like ‘Jean est frappé par l’auto de Paul’ (‘Jean is hit by Paul’s car’) cannot be expressed with a relational verb in Innu.

Person marking in these forms is the same as we have seen for the others: in the independent, AI/TI person marking appears, while the conjunct takes TA person marking.

⁴³ (66b) contains a possessive relational; Drapeau (2014: 246) also provides a cross-clausal example which we omit for brevity.

8.3 TA relationals with animate subjects

Several Algonquian languages, including those in the CMN group, have a morpheme *-im* which occurs with TA verbs and was treated as an obviative marker in earlier analyses (e.g. Wolfart 1973: 47 for Plains Cree and Pentland 1999: 234 for Proto-Algonquian).⁴⁴ However, a number of authors (e.g. Junker 2002; Cenerini 2014; Drapeau 2014) have noted parallels between relational *-w* and the *-im* construction. Consider the following examples:

- (67) Plains Cree (Wolvengrey 2011: 67)
Nikī-wīchīmāwa cān otānisa.
 ni-kī-wīch-im-ā-w-a cān o-tān-is-a
 1-past-help.TA-*im*-DIR-1>3' John 3-daughter-OBV
 'I helped John's daughter(s).'
- (68) Plains Cree (Dahlstrom 1991: 48)
wa-pam-im-e-w o-kosis-iyiw-a
 see.TA-*im*-DIR-3 3-son-OBV-OBV
 'He_i [prox.] saw his_j [obv.] son_k [obv].'
- (69) Moose Cree (Cenerini 2014: 104, from Ellis 2004: 499)
kī-ayāwēw napakāhtikwa kâ-kî-natawêlimimatipan.
 kī-ayāw-ê-w napakāhtikw-a kâ-kî-natawêlim-im-atipan
 PAST-have.TA-TA.DIR-1>3 plank-OBV.AN CONJ-PAST-want.TA-*im*-2PAST
 'He had the planks which you had been wanting.'

The morpheme *-im* appears in similar, although not identical, constructions as those used with relational *-w*: (67) and (68) show possessives with *-im*, and (69) shows a cross-clausal use.

Figure 3 highlights the structural parallels between verbs with relational *-w* and one with *-im*.⁴⁵

	1	2	3	4	5	6
AI(+O) stem		relational <i>-w</i>	TA TS <i>-â/-ê</i>		person	
TI stem	TI TS <i>-am</i>	relational <i>-w</i>	TA TS <i>-â/-ê</i>		person	
TA stem	TA TS <i>-(i)ku</i>	relational <i>-u</i>	TA TS <i>-â</i>		person	
TA stem		<i>-im</i>	TA TS <i>-â/-ê</i>	(obv.)	person	(plural/obv.)

Figure 3: Relational verb templates compared to TA verbs with *-im* (based on Cenerini 2014: 117, Table 5.12).

⁴⁴ Cenerini (2014: 108–110) shows that this construction also occurs in Kickapoo and Northern Ojibwe.
⁴⁵ This template does not include all inflectional positions for the TA verb. For a more thorough treatment see e.g. Wolfart (1973: 47–49) or Collette (2014: 243).

As Figure 3 shows, *-im* appears immediately after the TA stem, and before the direct theme sign, followed by person marking. In this case *-â/-ê* function as a true theme sign, marking direct interactions on a TA verb.

Dahlstrom (1991: 39, 48), Wolvengrey (2011: 77), and Cenerini (2014: 114–115) all describe two contexts for use of *-im*, both direct: a local person acting on a third person obviative (illustrated by [67] and [69]), and a third person proximate acting on a further obviative (68).⁴⁶ As both Wolvengrey and Cenerini point out, in each of these contexts, the subject and the object are two steps away from each other on the person hierarchy (local > 3 > 3' > 3''), and the added participant is thus always a third person falling between the other two. Mühlbauer (2008: 133), following Junker (2003b), argues that *-im* should be viewed as a marker of disjoint reference between the argument and the other participant invoked in the construction, and this highlights another parallel between the *-im* construction and the relational.

9 Conclusion

This chapter has surveyed applicative and applicative-like constructions across the Algonquian language family. In what follows, we summarize the characteristics of these constructions.

Morphology

- Canonical applicatives are marked on the predicate with a suffix. The two most common ones, **-aw* and **-amaw*, are reconstructible and were distinguished in Proto-Algonquian by the verb category to which they attached; this distinction has been obscured in many of the present-day languages.
- Relative preverbs and comitative preverbs (the latter usually in concert with an applicative suffix) combine with verb stems to form true applicatives, although the corresponding derivational constructions do not (see below).
- Suffixal applicativization derives TA and TI verbs, and comitative preverbs form TA verbs. All of the derived transitive verbs inflect regularly.
- The inflection of relational verbs appears to be cobbled together from multiple paradigms.

⁴⁶ The CNM languages and the others with the *-im* construction show various differences in how it is realized; e.g. in Innu it can occur in the inverse with an obviative subject (Drapeau 2014: 251). We leave these differences aside for present purposes.

Syntax

- The applied phrase is a primary object with suffixal applicatives. This is also the case for comitatives formed with both a preverb and a suffix, but evidence is lacking for comitatives formed just with a preverb.
- Relative roots and preverbs add an oblique argument, which is most often filled by an adverbial particle or a nominal. Nominal obliques may be optionally marked with a locative suffix when semantically appropriate.
- The most salient feature of the relational construction is that it does not allow an overt AppP.
- The object of an AI+O verb is an O2, and this remains the case when an O1 is added by applicativization. The object of a TI verb is an O1, and this base object becomes an O2 when the verb is applicativized.
- Research remains to be done on combinations of applicativization and other voice operations, as well as on comparison of applicatives and underived ditransitives.
- We have little information on the word order of applicative constructions in Algonquian. The unmarked location of the AppP in the clause appears in most of the languages to be postverbal, but AppPs are subject to the same discourse factors that drive word order in non-applicative clauses, and so they may occur preverbally as well. More detailed research across the family is needed on this.
- In many of the languages the position of the AppP in relative root constructions is flexible, as with the affixally-licensed ACs. However, in Meskwaki (Dahlstrom 2014: 57) and Miami-Illinois (Costa 2017: 363), oblique arguments (including relative root complements) typically immediately precede the verb.

Semantics

- Most of the affixal applicatives license arguments that can be of various types, with benefactives and goals being the most common roles added. However, the examples provided in our sources often seem to be somewhat arbitrary, with little attempt at exhaustive coverage of semantics. A notable exception to this is Drapeau (2011), who contrasts what she calls the “generalized applicative” of Innu (with a range of meanings added) to several other, more specific constructions.
- Relative roots and relative preverbs each license specific types of obliques, e.g. source, extent, manner, etc.
- There is also a dedicated construction for the comitative across the family, which is a true applicative in some cases in some languages, but a syntactic lookalike in others.

Lookalikes

- In two cases, the relative root construction and the comitative construction, an applicative lookalike is created with the use of a derivational morpheme (an initial) that licenses an additional participant or role in the construction. These are syntactic lookalikes because they lack corresponding BCs.

- The relational construction is morphologically marked but does not change the valence of the verb; thus, it is a valence-neutral morphological lookalike.
- All of the languages have a handful of syntactic lookalikes with weak predicate lability, usually including the verb ‘give’.

Appendix A: Sources of data by language

LANGUAGE	SOURCE	ABBREVIATION (IF USED)
Arapaho	Cowell and Moss (2008)	
Blackfoot	Blackfoot Dictionary online Bliss (2010, 2014) Frantz (1991) Taylor (1969)	BD
Innu	Brittain (1993) Drapeau (2011, 2014)	
Menominee	Bloomfield (1928, 1962, 1975) Macaulay fieldwork	
Meskwaki	Dahlstrom (2009, 2014, 2021)	
Mi'kmaq	Inglis (1986)	
Myaamia	Myaamia-Peewaalia Dictionary Lockwood research	MPD
Nishnaabemwin	Nishnaabemwin Dictionary online Valentine (2001)	ND
Northern East Cree	Eastern James Bay Dictionary on the Web Collette (2014)	
Odawa	Rhodes (2006)	
Ojicree	Slavin (2012)	
Plains Cree	Dahlstrom (1991) Plains Cree Dictionary Itwêwina Dictionary Wolfart (1973) Wolvengrey (2011)	PCD ITW
Proto-Algonquian	Bloomfield (1946) Hewson (n.d.)	
Southern East Cree	Junker (2003a)	
SW Ojibwe	Ojibwe People's Dictionary	OPD
Swampy Cree	Ellis (2000)	
Western Naskapi	Brittain (2001)	
Western Swampy Cree	Cenerini (2014)	
Unami (Delaware)	Goddard (2021)	

Appendix B: Abbreviations from Bloomfield (1928)

TEXT TITLE	PAGES	ABBREVIATION
A Boy is Blessed by Mosquitos and by a Hairy Serpent	554–559	BOY
How the Menomini Married	2–5	HMM
Lynx Tries to Kill a Stag	364–367	LNK
Me'napus Goes A-Visiting	186–197	MGV

Abbreviations

AC	applicative construction
AI	animate intransitive verb
AN	animate
AOR	aorist
APPL	applicative
BC	base construction
BEN	benefactive
CMN	Cree-Montagnais-Naskapi
CONJ	conjunct
DEM	demonstrative
DIR	direct
EMPH	emphatic
EP	epenthetic
FUT	future
HAB	habitual
IC	initial change
II	inanimate intransitive verb
IPFV	imperfective
INAN	inanimate
IND	independent indicative
INDEF.ACT	indefinite actor
INV	inverse
LCL	local
LOC	locative
NEG	negative
O	object
OBV	obviative
PFV	perfective
PL	plural
PRO	pronominal
PA	Proto-Algonquian
PROX	proximate
REL	relational
SG	singular
S.O.	someone

s.t.	something
SUB	subordinate
TA	transitive animate verb
TI	transitive inanimate verb
TS	theme sign
3'	third person obviative
3''	third person further obviative
x > y	x outranks y in a participant hierarchy
x>y	x acts on y

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19 Applicative constructions in Mayan languages: An overview with special focus on Chontal

Abstract: This chapter describes applicative constructions in Mayan languages, one of the largest and most well-known Native American language families. Mayan languages abound in valency-altering verb affixes that produce passive, antipassive, causative, and applicative constructions. The first part of this study presents the relevant features of Mayan morphosyntax using Kaqchikel, a Guatemalan language from the Eastern branch, and Chontal, a Mexican language from the Western branch. The second part of the study reviews the published data to examine examples of applicative and applicative-like constructions in the four branches of the family. This overview is followed by an in-depth analysis of applicative constructions in Chontal Mayan; these examples are from the author's field work with the Project for the Documentation of the Languages of Mesoamerica. The final part of the paper briefly summarizes the morphosyntactic and semantic properties of applicative construction across the Mayan language family.

1 Introduction

This chapter describes applicative constructions in Mayan languages, one of the largest and most well-known Native American language families. The commonly accepted grouping of the thirty languages in this family posits four branches (Campbell 2017: 44). The Eastern Branch languages are found in Guatemala; this grouping includes several large languages (e.g. Q'eqchi', K'iche', and Kaqchikel) with speakers numbering in the hundreds of thousands. Languages in the Western Branch are spoken in southern Mexico. The northernmost Mayan language, Huastec, comprises its own group and is thought to have split off first from the other languages. The fourth branch, Yucatecan, comprises several languages, among which is Yucatec, the most-spoken Mayan language of Mexico. Languages in the Mayan family have a rich inventory of valency-altering verb affixes that produce passive, antipassive, causative, and applicative constructions. Applicatives and applicative lookalikes are found throughout the Mayan language family.

2 The basics of Mayan verbal morphosyntax

In this section I will describe relevant Mayan morphosyntax using examples from an Eastern Mayan language, K'aqchikel, and a Western Mayan language, Chontal.¹ Unless stated otherwise, all Chontal data comes from my own fieldwork with the Project for the Documentation of the Languages of Mesoamerica (PDLMA), and all K'aqchikel data comes from my teaching material at the Center for Latin American Studies at the University of Kansas.

2.1 Basic verb morphology

Mayan languages are agglutinating, and verbs consist of roots with affixes that express person as well as tense, aspect, mood, and voice. Verb roots are either transitive or intransitive. Person marking has an ergative rather than an accusative alignment. The labels Set A and Set B are used with Mayan languages for the two sets of affixes: transitive verb subjects take the ergative Set A affixes, and objects and intransitive verb subjects take the absolutive Set B affixes. Table 1 shows the Set A forms from the two languages alongside the reconstructed Proto-Mayan forms (Mora-Marín 2009: 103).

Table 1: Set A person affixes.

	Chontal	Proto-Mayan	K'aqchikel
1SG	<i>kā- (k-)</i>	*nu	<i>nu- (i-, in-, w-)</i>
2SG	<i>a- (aw-)</i>	*aa	<i>a- (aw-)</i>
3SG	<i>u- (uy-, y-)</i>	*ru	<i>ru- (r-, u-)</i>
1PL	<i>kā-...laj/ t'òko'</i>	*qa	<i>qa- (q-)</i>
2PL	<i>a-...laj</i>	*ee	<i>i- (iw-)</i>
3PL	<i>u-...laj</i>	*ki	<i>ki- (k-)</i>

K'aqchikel has only undergone slight change from the reconstructed proto-Mayan forms. Chontal, on the other hand, has undergone serious innovation of its person-marking paradigm. For example, it has used the former first-person plural marker as its first-person singular marker. To fill in the gap this creates in the plural, it uses the new singular form plus the morpheme *laj*, the grammaticalized word for 'all.' Moreover, Chontal has

¹ Languages from Guatemala, including K'aqchikel, follow orthographic conventions laid out by the Guatemalan Academy of Mayan Languages, known as the Academia de Lenguas Mayas de Guatemala (ALMG). Languages from Mexico, including Chontal, follow orthographic conventions laid out by the National Indigenous Languages Institute, known as the Instituto Nacional de Lenguas Indígenas (INALI). For ALMG the letter <ā> represents the phoneme [e]; INALI uses the letter <ā> to represent [ə]. Stress in Chontal is unpredictable, and I represent it with an accent; stress is typically not represented in the various orthographies.

an inclusive/exclusive distinction: the exclusive is formed with *t'oko'*. As described by Law (2014: 84–92), this distinction is an areally spread innovation that is also found in Yucatecan, Chol, Tojolabal, Tseltal, and Tsotsil. In Chontal, the second- and third-person singular affixes look similar to the proto forms, but their plural counterparts have been simplified; they are the singular form with the *laj* morpheme (“all”) added. The Set B affixes have singular markers similar to the proto forms; once again, however, we see that Chontal bases the plural form on the singular and adds a new inclusive/exclusive distinction. Another important difference is that in Chontal the Set B affixes come after the verb, whereas in Kaqchikel they precede it. Table 2 shows the Set B forms from the two languages alongside Proto-Mayan reconstructed forms (Mora-Marín 2009: 103).

Table 2: Set B person affixes.

	Chontal	Proto-Mayan	Kaqchikel
1SG	<i>-on</i>	*iin	<i>in-</i>
2SG	<i>-et</i>	*at	<i>at-</i>
3SG	∅	*∅	∅
1PL	<i>-on-...laj/ t'oko'</i>	*o'n	<i>oj-</i>
2PL	<i>-et-...laj</i>	*ex	<i>ix-</i>
3PL	<i>∅...laj</i>	*ob'	<i>e-</i>

In the verbal systems of the two languages there is a sharp contrast in their expression of tense and aspect. Kaqchikel uses a relatively straightforward system where aspect is marked by a prefix on the verb. There are three aspectual prefixes: *x-* for completive, *y-* for incompletive (the allomorph *n-* is used before the Set B third person singular marker), and *xk-* for future. These aspect prefixes are the same whether the verb is transitive (1a) or intransitive (1b–c).

(1) Kaqchikel

- a. *x-in-a-to'*
COMPL-B1-A2-help
'You helped me.'
- b. *x-∅-kos*
COMPL-B3-get.tired
'She got tired.'
- c. *xk-e-wär*
FUT-B3.PL-sleep
'They will sleep.'

In Chontal, markers placed before the verb help to indicate tense and aspect. There is no verbal tense in Chontal; the particles, together with aspect markers, serve to specify the time frame. For example, the aspectual marker *mu'* is used with the incompletive suffix

to indicate a present progressive time frame, while *ja* is used with the completive status marker to indicate the immediate future. As many other Mayan languages, Chontal has two distinct classes of verbs: root verbs and derived verbs. The aspect suffixes differ depending on the verb's classification as transitive or intransitive, root or derived. A root transitive verb has an incomplete *-e'* suffix (2a), whereas a root intransitive has an incomplete *-e* suffix (2b).

(2) Chontal

- a. *kä-män-é'-Ø*
A1-buy-INC-B3
'I buy it.'
- b. *kä-bix-é*
A1-go-INC
'I go.'

Derived verbs use the suffix *-n* to indicate incomplete aspect on both transitive (3a) and intransitive verbs (3b).

(3) Chontal

- a. *u-pok'má-n*
A3-become.fat-INC
'He becomes fat.'
- b. *u-láchä-n-Ø*
A3-scratch-INC-B3
'She scratches it.'

The completive suffix is always the same regardless of the verb being root or derived, transitive or intransitive. It can, however, change according to person. The third person Set B suffix is not phonetically expressed and the completive is *-i* (4a). When a Set B suffix is phonetically expressed—first or second person—then it is the completive aspect that is zero-marked (4b and 4c).

(4) Chontal

- a. *a=t'äb-í-Ø*
ASP=go.up-COMPL-B3
'He went up.'
- b. *a=t'äb-Ø-ón*
ASP=go.up-COMPL-B1
'I went up.'
- c. *a=t'äb-Ø-ét*
ASP=go.up-COMPL-B2
'You went up.'

Kaqchikel, like other Mayan languages, has ergative alignment for person-marking on verbs. Set A prefixes index transitive subjects (5a), and Set B prefixes index objects (5a) and intransitive subjects (5b).

(5) Kaqchikel

- a. *x-in-ru-chäp*
COMPL-B1-A3-grab
'She grabbed me.'
- b. *x-in-jalon*
COMPL-B1-get.dressed
'I got dressed.'

Chontal has developed a pattern of split ergativity. Intransitive verbs that are positive incomplete follow an accusative pattern and use Set A prefixes to index the subject (6a). Intransitive verbs that are complete (6b) or negative incomplete (6c) follow an ergative pattern and use Set B prefixes to index the subject.

(6) Chontal

- a. *kä-wäy-é*
A1-sleep-INC
'I'm sleeping.'
- b. *a=wäy-Ø-ón*
ASP=sleep-COMPL-B1
'I slept.'
- c. *mach jul-Ø-ón tä otót*
NEG come-COMPL-B1 to house
'I didn't come to the house.'

A common feature of Mayan languages is a robust system of valency-changing constructions. In Kaqchikel a root verb forms a passive by changing the vowel (7). The demoted subject in the passive is indicated by a Set A prefix on the relational noun *-uma*.

(7) Kaqchikel

- a. *x-e-ki-chäp*
COMPL-B3.PL-A3.PL-grab
'They grabbed them.'
- b. *x-e-chap k-uma ri ixoq-i'*
COMPL-B3.PL-grab.PASS A3.PL-by DET woman-PL
'They were grabbed by the women.'

In Chontal the passive is formed by adding a suffix to the verb. A typical active to passive operation is in (8). In (8b) the demoted subject is part of a prepositional phrase.

(8) Chontal

- a. *kä-k'ux-é'-Ø*
 A1-eat-INC-B3
 'I eat it.'
- b. *u-k'ux-ká-n* *k'a* *no'on*
 A3-eat-PASS-INC by 1PRO
 'It is eaten by me.'

Passivization in Chontal also distinguishes between root and derived verbs: a root verb takes the suffix *-ka* (9a) and a derived verb takes the suffix *-int* (9b). Occasionally a verb takes both (9c).

(9) Chontal

- a. *u-k'ech-ká-n*
 A3-grab-PASS-INC
 'It is grabbed.'
- b. *u-tsäms-ínt-e*
 A3-kill-PASS-INC
 'It is killed.'
- c. *uy-ä'-k-ínt-e* *tan* *lówen*
 A3-put-PASS-INC in hole
 'It is put in the hole.'

2.2 Basic noun morphosyntax

In Mayan languages, some nouns are always possessed (e.g. body parts), while other nouns never are. Moreover, some nouns alter their form and/or meaning to some extent when possessed. Mayan languages are head-marking, and the Set A prefix is attached to the possessed noun rather than the possessor noun. In the Kaqchikel example in (10), 'hand' is possessed with a first-person singular prefix, and 'corner' is prefixed by the third-person prefix *ru-*; this prefix indicates the following noun is its possessor.

(10) Kaqchikel

- x-Ø-i-jös* *ri* *nu-q'a'* *ch-wäch* *ru-tzaltamal* *ri* *tz'alän*
 COMPL-B3-A1-scratch DET A1-hand PREP-front A3-corner DET table
 'I scratched my hand on the corner of the table.' (Macario et al. 1998: 301)

In the Chontal example (11), 'house' is possessed by third person singular prefix; the possessor 'Daria' follows 'house.'

(11) Chontal

t-uy-otót ix-dach' u-x-é tä ajtä lotoj-es-yá
 PREP-A3-house FEM-Daria A3-go-INC PREP be marry-CAUS-NMLZ
 'In Daria's house there's going to be a wedding.'

Nouns in Mayan languages are not marked for case; core arguments are marked on the verb, and the relationship of a non-core noun to the verb is expressed through prepositions and relational nouns. A relational noun is a grammaticalized noun bearing a Set A prefix that cross-references a non-core argument. For example, the Set A prefix on the Kaqchikel relational noun *-ichin* indexes 'my mother' (12a); in (12b) the Set A prefix appears on the relational noun *-uma* to index the demoted agent of a passive construction. In (12c) the recipient of the verb 'give' is not expressed on the verb, but rather with a following relational noun. Relational nouns perform the role of prepositions but are possessed nouns that have acquired a preposition-like meaning. Some relational nouns are based on body parts, while for others the original meaning has been lost.

(12) Kaqchikel

- a. *x-i-loq'on r-ichin nu-te'*
 COMPL-A1-shop A3-with A1-mother
 'I shopped with my mother.' (Brown, Maxwell, and Little 2006: 175)
- b. *x-in-qetëx k-uma*
 COMPL-B1-hug.PASS A3.PL-by
 'I was hugged by them.'
- c. *n-Ø-in-ya' chawe chwa'q*
 INC-B3-A1-give PREP.A2 something
 'I give you something.'

The two true prepositions in Kaqchikel are distinguished from relational nouns by their inability to take a Set A prefix. These two prepositions are grammaticalized from words indicating parts of the body. *Chi* comes from *chi'aj* 'mouth' and *pa* from *pamaj* 'stomach.' An example with *pa* is in (13).

(13) Kaqchikel

jantape' y-øj-ch'on pa Kaqchikel
 always INC-B1.PL-speak in Kaqchikel
 'We always speak in Kaqchikel.'

In Chontal we see a similar use of relational nouns and prepositions. As in Kaqchikel, some possessed body parts have become grammaticalized as relational nouns; for example, 'back' (14a) and 'mouth' (14b). In both these examples the possessed body part is used with one of the handful of true prepositions, in this case a shortened form of *tä* 'in, on, at.' Prepositions can also appear by themselves (14c).

(14) Chontal

- a. *ni yum+ká-jo' u-che-n-Ø-jo' ch'úyu t-u-pat té'*
 DET lord+earth-PL A3-do-INC-B3-PL whistle PREP-A3-back tree
 'The *duendes* whistle behind the tree.'
- b. *kol-Ø-ón kā-pítā-n-et t-u-ti' ch'uj*
 remain-COMPL-B1 A1-wait-INC-B2 PREP-A3-mouth church
 'I stayed waiting for you in front of the church.'
- c. *ixkúne uy-äl-é'-Ø tä kraxtán t'an*
 what A3-say-INC-B3 in Spanish language
 'What does it mean in Spanish?'

3 The Mayan applicatives

3.1 Mayan comparative data on the applicative

The definition of applicative construction (AC) and base construction (BC) used in this study is from Zúñiga and Creissels (this volume). An applicative verb construction indexes a participant that, in the BC, either has different verb indexing or is not indexed at all. The applicative verb itself is derived from a base verb. The applied phrase is not a subject or agent in either construction. A canonical applicative construction treats the phrase as a core argument. Some Mayanists use the term “registration applicative” to indicate an applicative lookalike construction that focuses the phrase but does not have verb indexing different from the BC (Smith-Stark 1994); in this paper I will refer to such constructions as oblique registration constructions.

Dixon (2012: 336–337) lists eight areas that need to be addressed when describing the applicative construction (AC): 1) the formal marking for the application construction, 2) whether a corresponding base construction (BC) for the applicative construction exists (if not, it is not a canonical applicative construction), 3) if there are factors that determine when the applicative construction is preferred or required (e.g., a human applicative argument), 4) whether the applicative argument can only be expressed in an applicative construction (if so, the construction is a quasi-applicative), 5) the semantic roles coded by the applicative construction, 6) whether the construction applies to intransitive verbs, transitive verbs, or both, 7) the status of the original object from the BC after the AC has licensed the applied argument (i.e. is it equal in status to the new object, or has it lost some of its primary object properties), and 8) the origin of the applicative marker.

Bearing in mind these criteria, I have found that the current published research does not allow us to describe satisfactorily applicative constructions and applicative lookalikes across the Mayan language family. In the published descriptions that do exist, the applicative is illustrated with but a few examples; often these cursory descriptions fail to make it clear if the AC has a corresponding BC. For any given language,

we would need to analyze many examples from varied discourse contexts in order to attain a true understanding of this construction. The most detailed descriptions of the applicative are my own inadequate description of its manifestation in a single Mayan language (Montgomery-Anderson 2010) and Mora-Marín's 2003 diachronic study of the Mayan language family. Given these limitations, I will endeavor in this chapter to give an account of what is currently known about this construction by summarizing the available data for each of the four branches: Eastern (§ 3.2), Huastecan (§ 3.3), Yucatecan (§ 3.4), and Western (§ 3.5).²

3.2 Eastern Mayan

3.2.1 Mamean

The Mamean subbranch of Eastern Mayan consists of four languages: Mam, Tekitek, Awakatek, and Ixil (Campbell 2017: 44). Mam, the largest language, has no applicative construction (England 2017). Ixil is the only language in this subgroup of Eastern Mayan where we have evidence of an applicative-like construction. Mora-Marín reports that the AC advances an instrument (15a) that in the BC is in an oblique phrase with a relational noun (15b). The applicative morpheme is *b'e*, by far the most common applicative morpheme across the Mayan language family and the topic of Mora-Marín's diachronic study (2003). The applicative morpheme has focused the instrument, but it has not marked it as a core argument; in neither the AC nor the BC does the verb index it with person affixes.³

(15) Ixil (Mora-Marín 2003: 207)

- a. *uula a-k'oni-b'e=in*
sling A2-shoot-APPL=B1
'With a sling you shot me.' AC
- b. *a-k'oni=in t'-an uula*
A2-shoot=B1 A3-RN sling
'You shot me with a sling.' BC

² For many examples I have slightly altered the parsing abbreviations and symbols to make them more consistent with those used in the paper. I have also standardized some of the letters used for the languages themselves; for example, I have replaced any instances of <\$> with <x>, a letter used in many Mayan languages to represent a voiceless post-alveolar fricative. Any mistakes are my own.

³ In (15a) the instrument phrase is not introduced by a relational noun, so this construction is not a typical oblique registration construction.

3.2.2 K'iche'an

The K'iche'an subbranch consists of nine languages: Q'eqchi', Uspantek, Poqomam, Poqomchi', K'iche', Kaqchikel, Tz'utujil, Sakapultek, and Sipakapense (Campbell 2017: 44). For some of these languages we have evidence that the applicative morpheme *b'e* appears on a transitive verb when an instrument is focused. In the BC in (16b) the instrument follows the verb and is introduced by a relational noun. In (16a) the instrument is in focus position, is not introduced by a relative noun, and is indexed on the verb by the Set B prefix; the argument that was indexed by the Set B prefix in the BC is now introduced by a relational noun.

(16) K'iche' (Campbell 2000: 278)

- a. *ch'iich' x-Ø-u-rami-b'e-j lee achih r-eeh lee chee'*
 metal COMPL-B3-A3-cut-APPL-TR DET man A3-GEN DET tree
 'The man used a machete to cut the tree.' / 'A machete is what a man used to cut a tree.' (AC)
- b. *x-Ø-u-rami-j lee chee' lee achih ch-eeh jun ch'iich'*
 COMPL-B3-A3-cut-TR DET tree DET man to.3POSS-to DET metal
 'The man cut the tree with a machete.' (BC)

In (17a) the demoted object is a local person; this argument is expressed as a Set A prefix on a relational noun.

(17) K'iche' (Campbell 2000: 278)

- a. *chee' x-Ø-in-ch'aya-b'e-j aaw-eej*
 wood COMPL-B3-A1-hit-APPL-TR 2POSS-GEN
 'I used a stick to hit you.' (AC)
- b. *x-at-in-ch'ay chi chee'*
 COMPL-B2-A1-hit with wood
 'I hit you with a stick.' (BC)

Henderson reports instances in Kaqchikel where the *b'e* applicative morpheme allows the verb to index comitatives (18a), locatives (18b), datives (18c), and themes / topics of speech (18d). Unfortunately, I do not have examples of corresponding BCs, so it is not known if these instances of *b'e* are lexicalized or represent true applicative constructions.

(18) Kaqchikel (Henderson 2007: 10)

- a. *x-Ø-u-samaji-b'e-j w-achb'il*
 COMPL-B3-A3-work-APPL-TR A1-friend
 'He worked with my friend.'

- b. *x-Ø-u-pal-b'e-j* *jun pop ri ixtän*
 COMPL-B3-A3-stand-APPL-TR DET mat DET girl
 'The girl stood on a mat.'
- c. *x-Ø-u-ch'o-b'e-j* *ri ixöq*
 COMPL-B3-A3-speak-APPL-TR DET woman
 'He spoke to the woman.'
- d. *x-at-ru-tzijo-b'e-j* *ri ixöq*
 COMPL-B2-A3-say-APPL-TR DET woman
 'The woman talked about you.'

Kaqchikel uses the *b'e* to focus an instrument in an oblique registration construction (England 2001: 139). In (19) *ikäj* 'axe' is fronted and its former position is marked by the particle *wi*; however, it is still part of an oblique phrase and it is not indexed on the verb.

- (19) Kaqchikel (England 2001: 139)
chi ikäj x-Ø-u-choyo-b'e-j *wi ri che' ri achi*
 PREP axe COMPL-B3-A3-cut-APPL-TR FOC DET tree DET man
 'With an axe the man cut the tree.'

Kaqchikel uses prepositions and relational nouns to introduce an instrument (20a), a beneficiary (20b), a recipient (20c), and a target (20d).

- (20) Kaqchikel
- a. *aPala's x-Ø-u-paxij* *ri b'oyo' chi ab'äj*
 Francisco COMPL-B3-A3-break DET pot PREP stone
 'Francisco broke the pot with stones' (García Matzar et al. 1992: 103)
- b. *x-Ø-ch'ajon* *k-ichin ru-ch'utit-e*
 COMPL-B3-wash.clothes A3.PL-for A3-aunt-PL
 'She washed clothes for her aunts.' (Brown, Maxwell, and Little 2006: 175)
- c. *yin x-Ø-in-tz'ib'aj* *el jun wuj chre jun w-ach'al*
 1PRO COMPL-B3-A1-write DIR DET paper PREP.A3 DET A1-friend
 'I wrote a letter to a friend.' (Macario et al. 1998: 383)
- d. *yin x-Ø-in-q'eb'a'* *jun che' pa ru-wi' raqänya'*
 1PRO COMPL-B3-A1-lay.across DET wood on A3-top river
 'I laid a plank across the river.' (Macario et al. 1998: 263)

Stout argues that Kaqchikel has an adnominal strategy where the third argument of the verb appears as a possessor of one of the verb's core arguments. In both (21a) and (21b)

the Set A prefix on the noun can be interpreted as both a possessor and a recipient. In (21c) the Set A possessor is a maleficiary, an interpretation reflected in the Spanish translation (the English translation reflects more literally the Kaqchikel).

(21) Kaqchikel

- a. *Juan x-Ø-u-ya' jun nu-wuj*
 Juan COMPL-B3-A3-give DET A1-book
 'Juan gave me a book.' (Lit. 'Juan gave my book.') (Stout 2015: 71)
- b. *x-Ø-u-taq pa jun nu-tzibanik*
 COMPL-B3-A3-send PREP DET A1-letter
 'She sent me a letter.' (Macario et al. 1998: 436)
- c. *jun achin x-Ø-r-eleq'aj jun w-ikäj*
 DET man COMPL-B3-A3-rob DET A1-axe
 'A man robbed my axe.' / 'Un señor me robó un hacha.' (Macario et al. 1998: 83)

Tz'utujil and several varieties of K'iche' use the *-b'e* suffix. In (22b) the addressee 'his wife' is marked with the relational noun *-uk'iin* 'with' and is not marked on the verb; in (22a) the applicative allows 'his wife' to be indexed by the Set B prefix.

(22) Tz'utujil (England 2001: 140)

- a. *x-u-tzijo-b'eej ja r-ixoxil jar aachi chi r-iij jar uleew*
 COMPL-A3-speak-APPL DET A3-wife DET man PREP A3-back DET land
 'The man spoke with his wife about the land.' (AC)
- b. *x-Ø-tzij-oon-i jar aachi r-uk'iin ja r-ixoxil chi*
 COMPL-B3-speak-ANTIP-PFS DET man A3-with DET A3-wife PREP
r-iij jar uleew
 A3-back DET land
 'The man spoke with his wife about the land.' (BC)

In (23a) the applicative form of the K'iche' verb allows the Set B prefix to index 'me'; in the non-applicative construction in (23b) the Set B prefix indexes 'the money.'

(23) K'iche' (England 2001: 140)

- a. *x-in-u-tzaqi-b'eej ri nu-chaaq'*
 COMPL-B1-A3-APPL DET A1-brother
 'My brother lost it for me.'
- b. *x-Ø-u-tzaq ri nu-pwaq ri nu-chaaq'*
 COMPL-B3-A3-lose DET A1-money DET A1-brother
 'My brother lost my money.'

Both Poqomam and Poqomchi' have an applicative construction that indexes an instrument. The applicative suffix *'i* allows the instrument to be fronted for questioning; in (24a) the patient 'me' is still expressed on the verb with a Set B prefix, while in (24b) the same patient is demoted to a relational noun phrase and the instrument is indexed on the verb with the Set B prefix.

(24) Poqomam (Dayley 1981: 33)

- a. *hila' x-in-a-q'at-'i-eh*
 what COMPL-B1-A2-cut-INS-TR
 'What did you cut me with?'
- b. *hila' x-Ø-a-q'at-'i-eh w-ihchin*
 what COMPL-B3-A2-cut-INS-TR Al-to
 'What did you cut me with?'

3.3 Huastecan

The Huastecan branch split off first from the other Mayan languages and is the most divergent; this branch is comprised of one living language (Campbell 2017: 44). There are three varieties of Huastec; the description of the variety from Xiloxúchil (in the state of Veracruz) does not contain much information on ditransitive constructions, but we can find an example of an AC (25a) and a corresponding BC (25b). In this language transitive verbs are marked with the morpheme *ch(i)* (reduplicated as *chinch*) to form the AC.

(25) Xiloxúchil (Ochoa Peralta 1984: 68)

- a. *Ø in t'aj-ch-al*
 B3 A3 do-APPL-INC
 'He does it to him.' (AC)
- b. *hahaa' Ø in t'aj-al*
 3PRO B3 A3 do-INC
 'He does it.' (BC)

This applicative morpheme can license a beneficiary (26a), recipient (26b), or maleficiary (26c).

(26) Xiloxúchil (Dayley 1981: 55)

- a. *Ø u nuj-chinch-al*
 B3 Al B3 sell-APPL-INC
 'I sell it for him.'
- b. *Ø u nuj-ch-al*
 B3 Al sell-APPL-INC
 'I sell it to him.'

- c. \emptyset in *kwe'-ch-al*
 B3 A3 rob-APPL-INC
 'He robs him of it.'

This applied argument can be passivized (27).

- (27) Xiloxúchil (Dayley 1981: 55)
 a. in *kwe'-chi-n-al*
 Bl rob-APPL-PASS-INC
 'I am (being) robbed of it.'
 b. in *núj-chinch-aab'*
 Bl sell-APPL-PASS
 'I am being sold it.'

Kondić (2012) provides much more detail about applicative constructions for Southeastern Huastec. The applicative in this variety has several distinctive features that make it unlike the applicative in the other Mayan languages. Southeastern Huastec uses two applicatives, both of which are etymologically unrelated to the morpheme *b'e* found in the other branches of the Mayan languages. Kondić refers to the morpheme *-tx* as a dative applicative; this morpheme appears on transitive verbs and references recipients and beneficiaries. As demonstrated in (28), this construction is not obligatory. In the base construction the beneficiary/recipient is indexed with a preposition (28b); in the dative applicative construction the direct object of the base construction is demoted while the applied object is treated as a core argument (28a).

- (28) Southeastern Huastec (Kondić 2012: 250)
 a. *u núj-tx-iy an ti kwita' na josee*
 A1 sell-DAT.APPL-TRC DET PREP chicken HUM José
 'I sold José the chicken.' (AC)
 b. *u núj-uw an kwita' baal na josee*
 A1 sell-TRC DET chicken to/for HUM José
 'I sold the chicken to/for José.' (BC)

A unique feature of the dative applicative in this variety of Huastecan is the role of definiteness. If the direct object in the base construction is indefinite (29b), it is not demoted with a preposition in the corresponding applicative construction (29a).

- (29) Southeastern Huastec (Kondić 2012: 250)
 a. *tu ch'a'-tx-iy juun i maango*
 1>2 buy-DAT.APPL-TRC DET NM mango
 'I bought you a mango.' AC

- b. *u ch'a'-iy juun i maango baal tataa'*
 A1 buy-TRC DET NM mango for you
 'I bought a mango for you.' BC

Kondić demonstrates that Southeastern Huastec has a distinct morpheme *-n* for instrumental applicative constructions. An intriguing feature of this morpheme is that it is only used on intransitive and detransitivized verbs. As shown in (30), this instrumental applicative construction is not obligatory. In the base construction the instrument is introduced with a preposition (30b); in the applicative construction the direct object of the base construction is demoted while the applied object is treated as a core argument (28a).

(30) Southeastern Huastec (Kondić 2012: 256)

- a. *in t'ak-ax-n-a' axee' i kwaa'txim*
 A3 wash-ANTIP-INS-TRC DEM NM cloth
 'He washed (things/it/him) with this cloth.'
- b. *na martiin in t'ak-a-al n-in chikaam-il*
 HUM Martin A3 wash-TR-INC DEM-A3 child-POSS
k'aal juun i kwaa'txim
 with DET NM cloth
 'Martin washes his child with a cloth.'

The instrumental applicative construction seems to be the most productive with the antipassive. Kondić does report uses of the instrumental on intransitive verbs, but she is unsure how productive such constructions are. She does give an example where the instrumental applicative and dative applicative appear together (31); she even reports instances where the dative morpheme appears twice on the same verb (32).

(31) Southeastern Huastec (Kondić 2012: 259)

- a. *ne'ech k-u t'aj-a' juniil axee' i te'neel*
 FUT IRR-A1 do-TR again DEM NM food
 'I am going to make that dish again,
- b. *jaach n-u ne'ech ay-tx-ix-n-a-al taam ch'ejel*
 that REL-A1 HAB wait-DAT.APPL-ANTIP-INS-TR-INC when half
k'iitxaaaj
 day
 'It is what I usually wait (for my family) with at noon.
 (=offer to my family for lunch)'

(32) Southeastern Huastec (Kondić 2012: 260)

axee' i kwitx in
 DEM NM wrap A1
nuy-tx-in-tx-in-al k'aal n-u atk'imaath
 sell-DAT.APPL-EP-DAT.APPL-MID-INC by DEM-A1 neighbor
 'My neighbor sells (to people) these wraps for me.'
 (lit: I am sold (to people) these wraps by my neighbor.)

Kondić notes that the instrumental construction is much less common than the dative construction; she also suggests that, in many instances, the instrumental may represent lexicalization.

3.4 Yucatecan

The Yucatecan branch consists of four languages: Yucatec Maya, Lacandón, Itzaj, and Mopan (Campbell 2017: 44). So far, no evidence has been found of an applicative construction in any of the Yucatecan languages (Mora-Marín 2003: 199). To express a third argument, Itzaj can use an adnominal strategy. In (33a) the recipient is part of a prepositional phrase, while in (33b) the possessive construction expresses the same event without the preposition.

(33) Itzaj

- a. *k-in-ts'(ah)-ik-Ø in-ts'on ti'ih in-suku'un*
 INC-A1-give-PPM-B3 A1-gun PREP A1-brother
 'I give my gun to my older brother.' (Hofling 1990: 550)
- b. *k-in-ts'(ah)-ik-Ø u-ts'on in-suku'un*
 INC-A1-give-PPM-B3 A3-gun A1-brother
 'I give my brother's gun (to him).' (Hofling 1990: 551)

We see in Itzaj that the two semantic roles most commonly indexed by the applicative in Mayan languages—recipients (34a) and instruments (34b)—are introduced with relational nouns.

(34) Itzaj

- a. *b'a'ax ki-b'el ki-k'ub'-u' t-a' winik ka' tak-ej*
 what A1.PL-go A1.PL-deliver-DTS to-DET man when come/DIS-TOP
 'What are we going to deliver to the man when he comes?' (Hofling 2000: 316)
- b. *u-chun a' che'-ej b'äk'-a'an et-e sum*
 A3-trunk DET tree-TOP wind-PTCP with-POSS rope
 'The trunk of the tree is wound with rope.' (Hofling 2000: 317)

3.5 Western Mayan

3.5.1 Q'anjob'alan

The Greater Q'anjob'alan subbranch consists of six languages: Q'anjobal, Akatek, Jakaltek, Mocho', Chuj, and Tojolabal (Campbell 2017: 44). There is not clear evidence of an applicative construction in these languages. Tojolabal does have a serial verb construction; the verb *i'* 'to carry' has been lexicalized to introduce a third argument as part of a dative construction (35). The verb 'to carry' can appear in the same clause with its lexicalized counterpart (35b).

(35) Tojolabal (Ramírez del Prado 2017: 586)

- a. *oj wa-le' jan y-i' jun s-k'u' ja=k-ijts'n=i*
 IRR A2-look.for DIR A3-DAT DET A3-blouse DET=A1-younger.sibling=TOP
 'Will you look for a blouse for my little sister when you come back?'
- b. *oj=b'i y-i' jan y-i' gancho ja=karla=i*
 IRR=REP A3-carry DIR A3-DAT hair.clip DET=Karla=TOP
 'They say, she's going to bring hair-clips to Karla.'

3.5.2 Cholan-Tzeltalan

The Cholan-Tzeltalan subbranch consists of six languages: Ch'ol, Chontal, Cholti, Ch'orti', Tzeltal, and Tsotsil (Campbell 2017: 44). I will discuss Chontal separately in Section 3.5.3, as I have much more data on the applicative for this language.

Tzeltal—as well as Tsotsil—uses a *be* morpheme to derive an AC from a BC; i.e. a canonical applicative construction (36a). This morpheme is used only on transitive stems and licenses the expression of a recipient, beneficiary, or external possessor. The applicative object is available for passivization (36b). This applicativization is obligatory; i.e. there is not an alternate non-applicative means to express this argument.

(36) Tzeltal (Polian 2017: 627)

- a. *la j-pas-b-at 'ul*
 PFV A1-make-APPL-B2 atole
 'I made atole for you.'
- b. *Ø-pas-b-ot-at 'ul*
 PFV-make-APPL-PASS-B2 atole
 'You were made atole.'

Tsotsil uses the suffix *-be* on transitive verbs to license the semantic role of recipient (37); this suffix also licenses an addressee, beneficiary, maleficiary, and instrument (Mora-Marín 2003: 211).

(37) Tsotsil (Mora-Marín 2003: 211)

'a li Xun=e ba y-ak'-be chitom li 'ants=e
 TOP DET Xun=ENCL go A3-give-APPL pig DET woman=ENCL
 'Xun went to give the pig to the woman.'

The other extant member of the Cholan family is Ch'orti', a language spoken in Eastern Guatemala. This language has lost the applicative morpheme and replaced it with a prepositional phrase strategy (38).

(38) Ch'orti'

- a. *in-man-i-Ø e b'ujk twa' ni-maxtak*
 A1-buy-SF-B3 DET clothes for A1-children
 'I bought clothes for my children.' (Pérez Martínez 1994: 48)
- b. *inw-ajk'-u-Ø ingojr muy a-tu'*
 A1-give-SF-B3 medlar.fruit to A2-mother
 'I gave medlar fruit to your mother.' (Pérez Martínez 1994: 142)⁴

In Ch'ol the applicative licenses the expression of the same semantic roles as those found for Tsotsil; i.e. beneficiary, maleficiary, addressee, recipient, and goal (Vázquez Álvarez 2002: 287). We can find pairs of sentences exemplifying a canonical applicative construction in this language (39).

(39) Ch'ol (Vázquez Álvarez 2002: 53)

- a. *mi k-p'is-b-eñ-Ø waj x-ixik*
 IPFV A1-weigh-APPL-INC-B3 tortilla CL-woman
 'I weigh tortillas for the woman.' AC
- b. *mi k-p'is-Ø waj cha'añ x-ixik*
 IPFV A1-weigh-B3 tortilla PREP CL-woman
 'I weigh tortillas for the woman.' BC

⁴ To segment and gloss the Ch'orti' examples I use the conventions found in Dugan (2013).

3.5.3 Chontal Mayan

Because my own field work has focused on Chontal—a language of the Cholan-Tzeltalan subbranch of Western Mayan with a productive applicative construction—I will devote more space to an exposition of the applicative in this language.

Chontal forms the applicative by using the *be* morpheme that we have already seen with several other Mayan languages. It appears only on transitive verbs. As described at the beginning of this chapter, Chontal root and derived verbs take different aspect and voice marking. For the applicative suffix there is no distinction, and the resulting construction takes the aspect suffixes used for derived verbs; for example, the transitive root verb *ts'ä* 'to light' (40a) and the transitive derived verb *chän* 'to look at' (40b) both form the applicative by adding *be*.

(40) Chontal

- a. *kä-ts'ä-bé-n-Ø* *ni* *beladóra* *ni* *kä-páp-la*
 A1-light-APPL-INC-B3 DET candle DET A1-father-PL.INCL
 'I light the candle to Our Lord.'
- b. *n-ix-ts'ak* *u-chäm-bé-n-Ø* *u-ni'ok* *che'án* *xelkóm*
 DET-FEM-medicine A3-look.at-APPL-INC-B3 A3-toe if.be uneven
 'The healer looks to see if the toes are uneven.'

The *be* morpheme attaches to the CVC transitive verb root; it is preceded by causative, versive, assumptive and/or depositive suffixes if those suffixes are present.⁵ A verb with both a causative and an applicative is in (41a). (41b) shows the applicative preceded by a versive—a suffix that transforms an adjective into an intransitive verb—and a causative. In (41c) the applicative is preceded by an assumptive—a suffix that transforms a positional root into an intransitive verb—and a causative. In (41d) the applicative follows a depositive, a suffix that transativizes an intransitive positional verb.

⁵ The terms 'assumptive' and 'depositive' are terms that Terrence Kaufman suggested to me specifically for Chontal; I do not know of their use for any other language. The assumptive suffix transforms a positional root into an intransitive verb (e.g. 'to assume X position'), and a depositive suffix transforms an intransitive positional verb into a transitive verb (e.g. 'to put something in X position').

(41) Chontal

- a. *ní kóya' u-chäk-es-bé-n-Ø u-k'a'*
 DET tomato A3-red-CAUS-APPL-INC-B3 A3-soup
 'The tomato makes the soup red.'
- b. *dáli a-mux-m-es-bé-n-on tan ní semét*
 ASP A2-toasted-VRS-CAUS-APPL-INC-B1 in DET comal
 'You are going to toast it for me in the comal.'
- c. *jink'in u-tsäms-í-Ø-jo' jol-wän-es-b-ínt-i-Ø y-ak'*
 when A3-kill-COMPL-B3-PL pull-ASM-CAUS-APPL-PASS-COMPL-B3 A3-tongue
 'When they kill it, its tongue is pulled out.'
- d. *p'ul-jats'-bé-n-Ø u-näk' t'ok k'élán k'ux*
 puffed.up-DPS-APPL-INC-B3 A3-belly with much food
 'Puff up his belly with a lot of food.'

The applicative morpheme has the allomorph *b* before a vowel; for example, before a Set B suffix (42a) and before a passive suffix (42b).

(42) Chontal

- a. *k-äl-b-Ø-ét ke' máchin ní yíchu'*
 A1-say-APPL-COMPL-B2 that NEG DET dog
 'I told you that it's not the dog.'
- b. *chin-wän-Ø-ón tä úk'-e ká xuch'-b-ínt-Ø-on*
 sit-ASM-COMPL-B1 PREP cry-INC because steal-APPL-PASS-COMPL-B1
kä-tak'in
 A1-money
 'I sat down and cried because my money was stolen.'

Chontal has a canonical applicative; i.e. the applicative construction (43a) has a corresponding non-applicative base construction (43b) that codes the applied phrase differently from that of the AC. Because the possessor of the direct object in the BC (43b) is interpreted as a third argument beneficiary, we could translate it as "My sister went to Nacajuca to buy a shirt for me." This is the adnominal strategy described previously for Kaqchikel and Itzaj.

(43) Chontal

- a. *ní kä-chich x-i-Ø tä yäxtúp u-män-bé-n-on kä-búk*
 DET A1-sister go-COMPL-B3 to Nacajuca A3-buy-APPL-INC-B1 A1-shirt
 'My sister went to Nacajuca to buy a shirt for me.' AC
- b. *ní kä-chich x-i-Ø tä yäxtúp u-män-é'-Ø kä-búk*
 DET A1-sister go-COMPL-B3 to Nacajuca A3-buy-INC-B3 A1-shirt
 'My sister went to Nacajuca to buy my shirt.' BC

The verb ‘to follow’ is used with the possessed body part ‘back’ and can be used with the applicative (44a) or without it (44b).

(44) Chontal

- a. *ni äjín u-tsäk'-bé-n-Ø u-pát ni yinik-o'*
 DET alligator A3-follow-APPL-INC-B3 A3-back DET person-PL
 ‘The alligator follows the people.’
- b. *u-ts'äk-é'-Ø kä-pát*
 A3-follow-INC-B3 A1-back
 ‘It follows me.’

The applicative can license the expression a third argument that is a beneficiary (45a), maleficiary (45b), recipient (45c), or addressee (45d).

(45) Chontal

- a. *u-jäk-sä-b-Ø-ón u-cho'án*
 A3-lower-CAUS-APPL-COMPL-B1 A3-price
 ‘They lowered the price for me.’
- b. *k-uch'-b-i-Ø u-buk'á kä-lot*
 A1-drink-APPL-COMPL-B3 A3-pozol A1-friend
 ‘I drank my friend’s pozol.’
- c. *kä-x-é k-ä'-bé-n-et a-tak'ín*
 A1-go-INC A1-give-APPL-INC-B2 A2-money
 ‘I’m going to give you money.’
- d. *aw-äl-bé-n-Ø adyós*
 A2-say-APPL-INC-B3 goodbye
 ‘You say goodbye to him.’

The semantic roles of target (46a) and instrument (46b) are not expressed by means of an applicative strategy; instead, these semantic roles are placed in an oblique phrase. (NB: the applicativized positional root in (46a) is indexing a beneficiary or maleficiary.) The semantic roles of accompaniment (46c) and location (46d) likewise are not indexed on the verb. Note that in both these examples the verb is the transitive verb *chen* ‘to do, make’; this verb is used as a light verb, a common construction discussed later in this section. In Chontal, the applicative is never formed on an intransitive base.

(46) Chontal

- a. *pok'-jats'-bé-n-Ø u-nok' tä ka'*
 thrown[wet]-DPS-APPL-INC-B3 A3-clothing on ground
 ‘Throw his wet clothes on the ground.’

- b. *ajchojó' u-low-é'-Ø te' t'ok y-ej*
 woodpecker A3-make.hole-INC-B3 branch with A3-beak
 'The woodpecker makes a hole in the branch with its beak.'
- c. *kä-che-n-Ø chukbá t'ok ixík*
 A1-do-INC-B3 lovemaking with woman
 'I make love with the woman.'
- d. *n-aj-tiburón u-che-n-Ø bidajlé tan nap'*
 DET-MASC-shark A3-do-INC-B3 living in sea
 'A shark lives in the sea.'

When the *be* morpheme is present, the Set B suffix indexes the applied argument. The direct object of the BC is no longer indexed with an affix on the verb. The applied argument is available for passivization; the applicative verb uses the same passive suffix used for derived verbs (47). Since Chontal has split-ergative morphology, the passive applied argument can be indexed by a Set A prefix (47a) or a Set B prefix (47b).

(47) Chontal

- a. *a-top'-jäts'-b-ínt-Ø-on kä-choj*
 ASP-sound.with.mouth-DPS-APPL-PASS-COMPL-B1 A1-cheek
 'I was slapped in the cheek.'
- b. *ané aw-äl-b-ínt-e aj-täl-täl-nál-et*
 2PRO A2-say-APPL-PASS-INC MASC-touch-touch-AND-B2
 'You are called "Mr. Touchy".'

The applied object can also be questioned (48a) and relativized (48b).

(48) Chontal

- a. *ixkuné aw-ä'-b-i-Ø tak'in*
 who A2-give-APPL-COMPL-B3 money
 'Who did you give the money to?'
- b. *ni chéwa jin ni*
 DET dough DEM DET
buk'a ke' mach uy-ä'-b-ínt-i-Ø ni kákaw
 pozol that NEG A3-give-APPL-PASS-COMPL-B3 DET cacao
 'It's the white pozol that you don't put the cacao in.'

In Chontal a transitive verb has two strategies to express a third argument. The first is the AC with the *-be* suffix (49a); the second is a non-applicative adnominal construction. This second strategy is used when a possessed noun is present. The possessed noun itself is indexed on the verb with a third person Set B suffix; the possessor of the noun denotes the third argument and is not cross-referenced on the verb. In (49) both objects are third person singular.

(49) Chontal

- a. *yech-bé-n-Ø* *n-u-be'tá* *ni* *kóko*
 take-APPL-INC-B3 DET-A3-meat DET coconut
 'Take the meat out of the coconut.' (AC)
- b. *yech-é-Ø* *n-u-be'tá* *ni* *kóko*
 take-INC-B3 DET-A3-meat DET coconut
 'Take the meat out of the coconut.' (BC)

In (50) one of the arguments is a local person. In the applicative construction (50a) it is indexed by the Set B suffix, while in the non-applicative (50b) it is not expressed on the verb, but as the possessor of the noun.

(50) Chontal

- a. *kä-tu'-bé-n-et* *aw-ok*
 A1-spit-APPL-INC-B2 A2-foot
 'I spit on your foot.' (AC)
- b. *kä-túbä-n-Ø* *aw-ok*
 A1-spit-INC-B3 A2-foot
 'I spit on your foot.' (BC)

The applicative is not used when the possessor and the subject are coreferential. Both non-applicative verbs in the sentence (51) illustrate this.

(51) Chontal

- jindá* *untu* *ixík* *ya'án* *u-jok'-é'-Ø* *u-lot*
 DEM one woman be A1-call-INC-B3 A3-friend
ke' *ya'án* *nat* *uné* *uy-äk'-é'-Ø* *u-k'ä'* *u-ti'*
 that be far 3PRO A1-put-INC-B3 A3-hand A3-mouth
 'This is a woman who is calling her companion who is far away, she puts her hand to her mouth.'

With the applicative construction the demoted object is no longer indexed on the verb with a Set B prefix; it is, however, available for relativization (52a), questioning (52b) and focus (52c). The lengthier fourth example (52d) shows that the demoted object 'bel-ladonna' is available for passivization; it is the topic of a description for curing angina.

(52) Chontal

- a. *kä-k'ajti'y-n-Ø* *ni* *primer* *ts'uts'óm* *ke'* *kä-b-Ø-et*
 A1-remember-INC-B3 DET first kiss that A1-give.APPL-COMPL-B2
 'I remember the first kiss that I gave you.'

- b. *kuné a-kä-cher-b-Ø-ét*
 what ASP-A1-do-APPL-COMPL-B2
 'What did I do to/for you?'
- c. *a-t'ox-bé-n-on ni tak'in=da*
 A2-break.down-APPL-INC-B1 DET money=FOC
 'You make change for me from this money.'
- d. *u-ts'äkäl-ká-n t'ok ix-beyadóna*
 A3-cure-PASS-INC with FEM-belladonna
u-num-s-ínt-e pan k'ak' k'a k'äs-chäj-má-k-Ø
 A3-pass-CAUS-PASS-INC in fire so.that half-cooked-ASM-SUBJ-B3
yá'i u-täk'-b-ínt-e t-u-choj n-aj-yaj
 then A3-put.in-APPL-PASS-INC PREP-A3-cheek DET-MASC-sick
 'It is cured with belladonna. It is passed through the fire so that it cooks halfway, then it is put in the cheek of the patient.'

The most common verb base for the applicative is *äk'* 'to give.' The *be* morpheme is obligatory on this verb to express a recipient. The addition of *be* causes a predictable phonological change to the verb root, and the derived applicative form is *ä'* (53a). Although this verb with the meaning 'to give' typically has a recipient and therefore an applicative suffix, we do see non-applicative uses of it (53b).

(53) Chontal

- a. *n-aj-chon+ye'é namás un-tsul ye'é uy-ä'-b-Ø-ón*
 DET-MASC-sell+meat only one-NC meat A3-give-APPL-COMPL-B1
 'The meat seller gave me only a little piece of meat.'
- b. *ajbits' jin um-p'e te' ke' uy-äk'-é'-Ø u-jut ka' bujté'*
 cochite DEM one-NC tree that A3-give-INC-B3 A3-fruit like quinquil
 'The *cochite* is a tree that gives fruit like the *quinquil*.'

This verb also commonly has the meaning 'to put, place,' and the applicative appears in this usage to express a target semantic role.⁶ Since the Chontal applicative normally does not index a target semantic role, I assume that the verb has extended the meaning 'to give to someone' to signify something like 'to give to a location'. In (54) the applied argument is clearly not the first-person beneficiary (who is coreferential with the subject and therefore not available for applicative promotion), but rather the third-person target; i.e. the place where the lotion is applied.

⁶ Polian (2013: 274–275) describes similar meanings for the verb *ak'* in Tseltal; i.e. the verb can indicate a change of owner ('to give') as well as change of location ('to put, place').

(54) Chontal

kä-x-é k-ä'-bé-n-Ø bapurú bajká u-k'ux-Ø-ón apixk'ok'
 A1-go-INC A1-put-APPL-INC-B3 VapoRub where A3-sting-COMPL-B1 wasp
 'I'm going to put on VapoRub where the wasp stung me.'

The meaning of 'to put, place' also appears in non-applicative constructions with the target semantic role in an oblique phrase (55). This alternation is unexpected and seems to be particular to this verb.

(55) Chontal

- a. *uy-äk'-í-Ø n-aj-báyu tä ja' tuba u-k'ech-é'-Ø sits'ák*
 A3-put-COMPL-B3 DET-MASC-trap in water to A3-catch-INC-B3 turtle
 'He put the trap in the water to catch the turtle.'
- b. *ya'í=ba ka'án äk'-bitá a-x-é aw-äk'-é'-Ø a-xänäk'*
 there=FOC where put-NMLZ A2-go-INC A2-put-INC-B3 A2-shoe
 'There is the place where you leave your shoes.'

Other transitive verbs with a target semantic role do not use the applicative to index this role (56).

(56) Chontal

kä-x-e kä-t'um-jul-é'-Ø ni tak'in tä ja'
 A1-go-INC A1-AFF-throw-INC-B3 DET money in water
 'I'm going to throw the money in the water.'

In (57) the pair of sentences express the same event with applicative morpheme (57a) and without the applicative morpheme (57b); neither sentence, however, is an applicative construction.

(57) Chontal

- a. *ni ixík uy-ä'-bé-n-Ø xápum tan ni nók'*
 DET woman A3-put-APPL-INC-B3 soap on DET clothing
 'The woman puts soap on the clothing.'
- b. *ni ixík 'uy-äk'-é'-Ø xápum tan ni nók'*
 DET woman A3-put-INC-B3 soap on DET clothing
 'The woman puts soap on the clothing.'

The applicative form of the verb *äk'* also appears in more complex sentences with the meaning 'to cause someone to do something' (58a) or 'to allow someone to do something' (58b). In the negative, this verb can mean 'to prevent' (58c).

(58) Chontal

- a. *uy-ä'-bé-n-Ø* *ak'ojná-k-Ø*
 A3-give-APPL-INC-B3 dance-SUBJ-B3
 'He makes her dance.'
- b. *k-ä'-bé-n-Ø* *uy-uch'é-n-Ø*
 A1-give-APPL-INC-B3 A3-drink-INC-B3
 'I make him drink.'
- c. *n-ajlo'* *mach* *uy-ä'-b-i-Ø* *u-che-n-Ø*
 DET-boy NEG A3-give-APPL-COMPL-B3 A3-do-INC-B3
 'The boy prevented it (lit. that he/she/it do it).'

The verb can be used with this meaning without the applicative (59). It is unclear why an AC is not used; the inanimate nature of the agent may be a factor.

(59) Chontal

- uy-úts'u* *ni* *k'ux* *mu'-uy-äk'-é'-Ø* *kä-xéjã-n-Ø*
 A3-smell DET food ASP-A3-cause-INC-B3 A1-vomit-INC-B3
 'The smell of the food makes me vomit.'

For some speakers the verb *äk'* has a special shortened applicative base for the completive (60a) and imperative (60b); the base appears to consist entirely of the applicative morpheme.

(60) Chontal

- a. *kä-b-Ø-et* *ni* *yentax*
 A1-give.APPL-COMPL-B2 DET necklace
 'I gave you the necklace.'
- b. *bé-n-Ø* *um-p'é* *jek'óm* *de* *ixím* *n-ajló'*
 give.APPL-INC-B3 one-NC pile of corn DET-boy
 'Give a little bit of corn to this boy.'

The applicative form of *äk'* has become lexicalized for some meanings. For example, in both sentences in (61) it is unclear what the applied object is since the target semantic role is part of a relational phrase.

(61) Chontal

- a. *u-k'än-ká-n-Ø* *tuba* *b-int-ik-Ø* *tamá* *ni* *tsajel* *ja'*
 A3-have-PASS-INC-B3 to put.APPL-PASS-SUBJ-B3 in DET sweet water
 'It is used to put in sweet water.'
- b. *k-äk'-bé-n-Ø* *tan* *kä-pa'* *bú'u*
 A1-put-APPL-INC-B3 in A1-CL bean
 'I put it in my beans.'

A lexicalized applicative on the verb ‘to give’ is the usual way to talk about the weather events of rain (62a) and wind (62b). With such examples I was unsure to gloss it with the Set B suffix as there seems to be no third (or even second) argument for this verb.

(62) Chontal

- a. *ixkak'in u-x-e tä xup-ó uy-ä'-bé-n-Ø(?) ja'*
 when A3-go-INC PREP stop-INC A3-give-APPL-INC-B3(?) water
 ‘When is it going to stop raining?’
- b. *mu'-uy-ä'-bé-n-Ø(?) noj re'í ik'*
 ASP-A3-give-APPL-INC-B3(?) big very wind
 ‘It’s very windy.’

Two common verbs form the applicative with an irregular base. The verb *ch'* ‘to take’ uses its historic CVC root *ch'äm* as the applicative base (63a). The verb *chen* ‘to do’ uses the stem *cher* as a base. In (63c) verb base *cher* with the applicative is nominalized.

(63) Chontal

- a. *ni sántu-jo' u-ch'äm-bé-n-Ø u-ch'új-le ni ye'é*
 DET saint-PL A3-take-APPL-INC-B3 A3-holy-POSS DET meat
 ‘The images [of saints] absorb the spirit of the meat.’
- b. *aj-toch u-cher-b-í-Ø ts'ak ix-pet*
 MASC-Antonio A3-do-APPL-COMPL-B3 medicine FEM-Petrona
 ‘Antonio made Petrona medicine.’
- c. *u-xoy-í-Ø-jo' n-u-cher-b-int-e u-jobäle*
 A3-surround-COMPL-B3-PL DET-A3-make-APPL-PASS-INC A3-party
 ‘They surrounded “she-for-whom-the party-is-made”.’

In Chontal *chen* is frequently used in light verb constructions (64a). A semantically “light” verb (i.e., a verb not very specific in meaning) relies on an accompanying noun to form a more specific meaning (compare the semantically specific English verb ‘to shower’ with its light verb counterpart in the construction ‘to take a shower’). The object of *chen* is a noun or a nominalized verb; a shortened form of the Spanish infinitive can also act as the object (64b). Use of the light verb construction has probably increased through contact with Spanish as it is a productive means of incorporating Spanish verbs into the language (Montgomery-Anderson 2006).

(64) Chontal

- a. *tä ch'uj ya'an u-ché-n-Ø-jo' ch'uj+t'an t'ok yéntax*
 in church be A3-do-INC-B3-PL holy+word with rosary
 ‘The rosary is being prayed in the church.’

- b. *mu-'u-ché-n-Ø u-ba prekupá n-ajlo' jini*
 ASP-A3-do-INC-B3 A3-REFL worry DET-boy DEM
 'The boy is worrying.' (cf. Sp. *preocuparse* 'to worry')

The light verb construction frequently uses an applicative; in these instances, the applicative morpheme attaches to the base cher. In this construction the demoted object is a shortened Spanish infinitive (65a) or a non-specific noun (65b), i.e., a noun without a determiner.

(65) Chontal

- a. *si a-be-n-ón ts'itá ixim kä-cher-bé-n-et agrade sé*
 if A2-give.APPL-INC-B1 a.little corn A1-do-APPL-INC-B2 thank
 'If you give me a little corn, I will thank you.' (cf. Sp. *agradecer* 'to thank')
- b. *n-ajló' y-o kä-cher-bé-n-Ø t'an*
 DET-boy A3-want A1-do-APPL-INC-B3 word
 'The boy wants me to write to him.'

More work needs to be done on the Chontal applicative. The Chontal I encountered in my own fieldwork was full of Spanish borrowings, particularly of the kind using the light verb construction. Spanish is lacking in the Mayan type of complex verb morphology that marks objects; instead, it employs prepositions. Modern Chontal may be borrowing from a Spanish syntactic template by expanding its use of prepositions. The example in (66a) has such a preposition marking the beneficiary 'San Lázaro' instead of the expected applicative construction. In the longer example in (66b), the first light verb construction with the Spanish infinitive does not have the applicative, while the second such construction does. The use of the preposition in (66c) seems unnecessary.

(66) Chontal

- a. *kä-ché-n-Ø cherajbuk'á chäm-p'é k'in t-aj-láchu*
 A1-make-INC-B3 offering four-NC day PREP-MASC-Lázaro
 'I made an offering of four days to San Lázaro.'
- b. *jink'in kä-ché-n-Ø t'an t'ok n-aj-yokt'án-o' tä makuspána*
 when A1-do-INC-B3 word with DET-MASC-Chontal-PL of Macuspana
nadamás kä-cher-bé-n-Ø entendé la mitá u-t'án-o'
 only A1-do-APPL-INC-B3 understand the half A3-word-PL
 'When I speak with the people of Macuspana, I only understand half their words.' (cf. Sp. *entender* 'to understand')
- c. *ni yíchu' mu-'u-käm-é'-on ták wok*
 DET dog ASP-A3-bite-INC-B1 PREP.A1 leg
 'The dog is biting my leg.'

My own field work on Chontal was on one specific dialect around Nacajuca and Mazateupa. There are examples in the literature from other dialects where the applicative

is used (or not) in ways that are different from what I have encountered. For example, Osorio May (2005) describes a variety in Tecoluta in which a local-person argument that I would expect to be applicativized is introduced with a preposition (67b). Note that *ta'a* 'your, yours' is a contraction of the preposition with the Set A affix. The Chontal speaker I worked with from Mazateupa thought this sentence sounded odd. The sentence with the non-local person (67a) is the same applicative construction encountered in the variety I studied.

(67) Chontal (Osorio May 2005: 26–27)

- a. *kä-män-bé-n-Ø* *nok'* *ix-ch'upim*
 A1-buy-APPL-INC-B3 clothes FEM-old.woman
 'I buy clothes for the old woman.'
- b. *kä-män-í-Ø* *buk* *t'a'a*
 A1-buy-COMPL-B3 clothes PREP.A2
 I bought clothes for you.'

It should be emphasized just how common the applicative is in Chontal. The following relatively short description of a cure for an ear infection contains six such constructions (68).

(68) Chontal

n-ajts'ak *u-kol-bé-n-Ø* *un-ts'itá'* *ch'ú'ul* *ja'* *tan* *u-chikin*
 DET-healer A3-put-APPL-INC-B3 one-little holy water in A3-ear
 'The healer puts a little holy water in the ear;
ya *ke'* *tikw-Ø-í=ba*
 now that heat-B3-COMPL=FOC
 after it has heated up,
u-chel-bé-n-Ø *u-pam* *k'a* *pas-ik-Ø* *n-u-pujú*
 A3-tilt-APPL-INC-B3 A3-head so.that leave-SUBJ-B3 DET-A3-pus
 he tilts the head so that the pus comes out,
yá'i *t'ok* *pits'* *u-suk-bé-n-Ø*
 then with cotton A3-dry-APPL-INC-B3
 then he dries it with cotton
yá'i *u-ju'-bé-n-Ø* *yok* *k'uts*
 then A3-put.in-APPL-INC-B3 DIM tobacco
 then he puts in it tobacco
k'o-pa'-sä-bé-n-Ø *ni* *ik'*
 so.that.A3-leave-CAUS-APPL-INC-B3 DET air
 so that it takes out the air,
u-pa'-sä-bé-n-Ø *u-péte* *puju*
 A3-leave-CAUS-APPL-INC-B3 A3-all pus
 in order to take out all the pus.'

4 Conclusion

In this overview, we have seen that applicative constructions and applicative lookalikes are found across the Mayan language family, with three of its four branches showing evidence of these constructions. It must be emphasized that in most cases the amount of applicative data we have on any given Mayan language is quite small; this construction has not been methodically and comprehensively investigated in most of the Mayan languages. For future investigations, it will be especially important to test the known applicative structures to see if they are obligatory or optional. This overview should thus be taken as a starting point for research rather than as a conclusive and comprehensive study. According to the data that is available, Mayan applicative constructions can be characterized as follows:

Morphology

- There are four branches in the Mayan family. The morpheme *be* appears in the Eastern branch and the Western branch; these two groupings contain the largest number of languages as well as speakers.
- The Yucatecan branch is the only branch that has no evidence of an applicative morpheme.
- The fourth and most divergent branch of the Mayan languages—Huastecan—has developed two distinct applicative morphemes etymologically unrelated to the applicative morpheme in the other branches.
- This paper focuses on data from Chontal Mayan, a language in the Western branch. In Chontal the *be* morpheme has the allomorph *b* before vowels. This morpheme can be used with other valency-changing suffixes (passive, causative, and depositive).

Syntax

- In the Eastern Mayan branch *be* appears in both true applicative constructions as well as in lookalike oblique registration constructions. Kaqchikel, for example, uses the *b'e* to focus an instrument in an oblique registration construction.
- In the Mamean subbranch of Eastern Mayan, Ixil is the only language with an applicative-like construction. In this language the AC advances an instrument that in the BC is in an oblique phrase with a relational noun. The applicative morpheme focuses the instrument, but it is not marked as a core argument.
- In the Western branch we have the most evidence of *be* used in true applicative constructions, i.e., the AC has a corresponding BC and the AP is a core argument. Cholan-Tzeltalan languages use the *be* morpheme extensively.
- Although the Yucatecan branch is the only branch that has no evidence of an applicative morpheme, there is evidence that Itzaj uses an adnominal strategy to index a third argument.

- In at least one variety of Huastecan, the applicative construction is not obligatory. Demotion of the BC object is affected by the definiteness of the object.
- Except for Southeastern Huastec, the applicative construction seems to be only formed on transitive verbs, not intransitive verbs. In Southeastern Huastec, the instrumental applicative is found only on intransitive and detransitivized verbs.

Semantics

- In all the Mayan languages except Huastec, the applicative morpheme is semantically underspecified; that is, the morpheme does not vary based on the semantic role it indexes.
- The Huastecan branch has applicative morphemes distinct from the other Mayan languages; these morphemes license recipients, beneficiaries/maleficiaries, and instruments.
- In the Western branch, Cholan-Tzeltalan languages use *be* to index a recipient, addressee, beneficiary, maleficiary, and instrument.
- We have data showing that Kaqchikel uses the *b'e* applicative morpheme to index comitatives, locatives, datives, and themes / topics of speech. These examples need to be tested for corresponding BCs to show that these instances of *b'e* represent true applicative constructions.
- In Chontal, lexicalized applicatives are used for some high frequency utterances such as weather events.
- In one variety of Huastecan there are two distinct applicative morphemes: one for beneficiaries and recipients and the other for instruments.
- For many Mayan languages further research needs to be done to determine if applicative constructions are obligatory; if they are not obligatory, the pragmatic and discursive implications of the applicative construction need further explanation.

Abbreviations

A	set A affix
AC	applicative construction
AFF	affect root
AND	andative
APPL	applicative
ASM	assumptive
ASP	aspect
ANTIP	antipassive
B	set
B	affix
BC	base (i.e. non-applicative) construction
CL	classifier

CAUS	causative
COMPL	completive
DAT	dative
DAT.APPL	dative applicative
DEM	demonstrative
DET	determiner
DIM	diminutive
DIR	directional
DIS	dependent intransitive status
DPS	depositive
DTS	dependent transitive status
EP	epenthesis
ENCL	enclitic
FEM	feminine
FOC	focus
FUT	future
GEN	genitive
HAB	habitual
HUM	human
IPFV	imperfective
INC	incompletive
INCL	inclusive
INS	instrumental
IRR	irrealis
MASC	masculine
MID	middle voice
NC	numeral classifier
NEG	negative
NM	nominal modifier
NMLZ	Nominalization
PASS	passive
PFS	phrase-final suffix
PFV	perfective
PL	plural
PPM	proximal patient marker
PRO	pronoun
POSS	possessive
PREP	preposition
PTCP	participle
REFL	reflexive
REL	relative
REP	reportative
RN	relational noun
SF	stem formative
SG	singular
SUBJ	subjunctive
TOP	topic
TR	transitive
TRC	transitive completive

- default affix boundary
- = clitic boundary
- + compounding boundary

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20 Applicative constructions in two Otomanguean families: Otomi and Zapotec

Abstract: This chapter describes several applicative constructions (ACs) in two Otomanguean language families, Otomi (Otopamean, Western Otomanguean) and Zapotec (Zapotecan, Eastern Otomanguean). As both families are highly diverse internally, a wide range of morphological and syntactic phenomena can be observed in their ACs. With respect to morphology, Zapotec languages tend to mark ACs via concatenative morphology, whereas Otomi makes use of cumulative exponence, stem alternations and, arguably, lexical alternations. With respect to syntax, we observe a close correlation between (non-)promotional constructions and extraction (~ wh-movement). Furthermore, applicative morphology is also found in constructions that display a promotion/non-promotion continuum, both within a single language (e.g., Northern Zapotec) and among different language varieties (e.g., Otomi languages).

1 Introduction

Otomanguean (Mexico) is the most diverse language stock in the Meso-American linguistic area (Campbell, Kaufman, and Smith-Stark 1986), containing 178 languages according to Ethnologue,¹ 181 according to Glottolog,² and 220 according to Mexico's *National Institute of Indigenous Languages* (INALI 2009). These language families (listed in Figure 1) are nowadays spoken in the states of San Luis Potosí, Guanajuato, Michoacán, Querétaro, Hidalgo, Veracruz, Puebla, Tlaxcala, Oaxaca, Guerrero, and Mexico, by approximately 2,148,000 people;³ some extinct Otomanguean languages (marked with “†” in Figure 1) were once spoken in Southern Mexico and in Costa Rica (Kaufman 1994).

Otomanguean languages are tonal (2 to 11 tonemes), and tend to have CV-type syllable structures, nasal vowels, and complex phonation types. They are fusional (some more synthetic than others), their derivational morphology is not very productive, and most (if not all) of them have inflectional classes. Otomanguean languages lack non-finite verb forms, their word order is verb-initial, and they are all head-marking (Baerman, Palancar, and Feist 2019: 3–4). The head-marking feature is illustrated in (1) below. As can be seen in (1a), the possession relation in Otomi languages is indicated in

1 <https://www.ethnologue.com/subgroups/otomanguean>

2 <https://glottolog.org/resource/languoid/id/otom1299>

3 https://site.inali.gob.mx/Micrositios/estadistica_basica/estadisticas2015/estadisticas2015.html

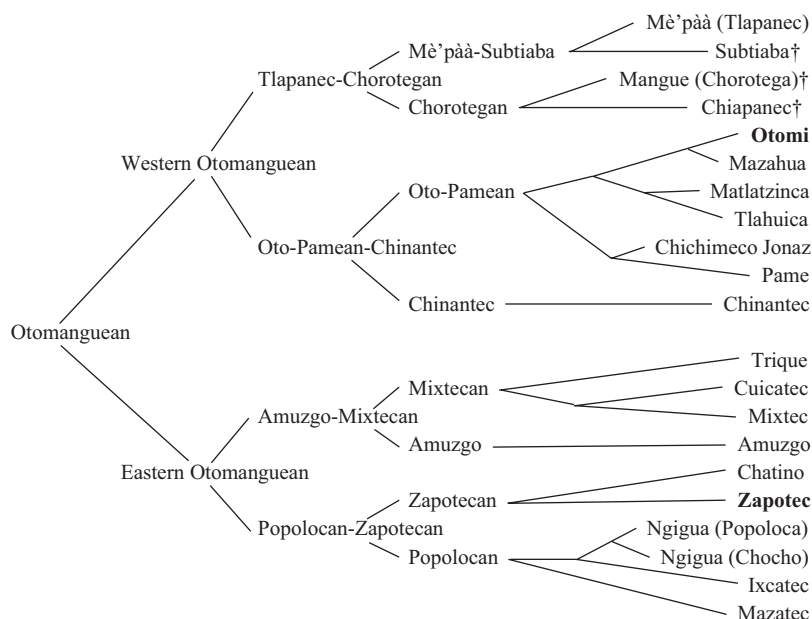


Figure 1: The Otomanguean stock (Campbell 2017).⁴

the possessum noun phrase (*kár thühü* ‘his name’) rather than in the possessor noun phrase (*kar ánima* ‘the dead person’). As for the verb, person of the subject is indicated in the preverbal inflectional formative,⁵ as in (1b), while object is encoded via an enclitic or a suffix, as in (1c) and (1d), respectively.

(1) San Felipe Otomi

- a. *da den ka=r thühü ka=r ánima*
 IRR ss\follow DET.SG.NV=**SG.3PSR** name DET.SG.NV=SG dead.person
 ‘So as the dead father’s bloodline continues.’
 (LBI 2010: Matthew 22:24)
- b. *xkí ma libre, 'bu*
2.IMM ss\go free then
 ‘You’d be free to go then.’
 (LBI 2010: John 19:10)

⁴ Please note that the branches in the diagram are Campbell’s (2017) interpretation of one of Kaufman’s non-peer reviewed manuscripts. We thank an anonymous reviewer for pointing this out to us.

⁵ Inflectional formatives are clitics, but they are written as separate words in the original source from which these examples are taken.

- c. *gege=ká i 'o'ti=bi ka i 'adi*
 3=3SG.NV IPFV make.APPL:BEN=**3IO** 3SG.NV IPFV ask.for
 'To him it will be done as he asks for.'
 (LBI 2010: James 5:16)
- d. *bi zah-pi kí ngo ku ánima*
 PFV SS|bite.APPL:BEN=**3IO** PL.NV3PSR meat DET.PL.NV dead.person
 'They (i.e. the birds) ate the corpses' flesh.'
 (LBI 2010: Revelation 19:21)

Obliques and other adjuncts are expressed either in PPs, as illustrated in (2a), in PPs headed by so-called relational nouns, as in (2b), with adverbs and bare nouns serving as locative adverbials, as shown in (2c), or via serial-verb constructions, as in (2d).⁶

- (2) a. Acazolco Otomi
ra=di=pe'=[a Márquesa]_{PP} k'a=mí mini=ga
 ICP=CL=work=**LOC** La.Marquesa DET.SG.NV=1PSR comadre=1
 'My *comadre* works in La Marquesa.'
 (Hernández-Green 2015: 48)
- b. Quiegolani Zapotec
w-nii men disa [lo noo]_{PP}
 COMPL-speak 3 language **RN:FACE** 1EXCL
 'She spoke Zapotec to me.'
 (Black 2000: 46)
- c. Chalcatongo Mixtec
ni-xá?á=Ø nundúa ikú
 COMPL-go₂=3 **Oaxaca** yesterday
 'She went to Oaxaca yesterday (and has returned).'
 (Macaulay 1996: 170)
- d. Teotitlán Zapotec
ru-ta'w=an gæt ri-kā' Ánn
 HAB-sell=3SG.INFOR tortilla **HAB-get** Ana
 'S/he sells tortillas to Ana.'
 (Gutiérrez 2021: 147)

This chapter centers on applicative constructions in two language families of the Otomanguean stock (in bold in Figure 1 above): Otomi (Otopamean, Western Otomanguean) and Zapotec (Zapotecan, Eastern Otomanguean). Applicative constructions and their syntax have been described in these two families, and their morphological and semantic features are representative of the internal diversity of Otomanguean.

⁶ Glosses from some secondary sources have been modified.

As is stated in the position paper (Zúñiga and Creissels, this volume), descriptions of applicative constructions relate a base construction (BC) to an applicative construction (AC). These constructions have the following characteristics:

- (3) a. The predicates in both the BC and the AC are built upon the same root, but the one in the AC bears additional overt marking with respect to the one in the BC.
- b. The S/A participant in the BC remains S/A in the applicative construction.
- c. The AC includes an applied phrase (AppP), which refers to a participant that either requires a non-core coding different from its coding in the AC (e.g. in a PP) or cannot be expressed at all in the BC.

These relationships between the BC and the AC are illustrated in (4). The verb root is *bérék* ‘work’ in both (4a) and (4b), but in (4b) (i.e., the AC) it receives the applicative suffix *-él*, as per the characteristics in (3a) above. According to characteristic (3b), the 1st person singular remains the subject in both constructions (prefix *kí-*). Finally, as per (3c), the applicative suffix *-él* in the AC in (4b) allows the expression of the (beneficiary) AppP *kítsó* ‘Kitso’, which, crucially, cannot be expressed in the BC in (4a).

- (4) Tswana
 - a. *kí-tlàà-bérék-á* *màitsibò:á.*
 sI:1SG-FUT-work-FV evening(6)
 ‘I’ll work this evening.’
 - b. *kí-tlàà-bérék-él-à* [*kítsó*]_{AppP} *màitsibò:á.*
 sI:1SG-FUT-work-APPL-FV Kitso(1) evening(6)
 ‘I’ll work for Kitso this evening.’
 (adapted from Creissels, this volume)

In this chapter, we attempt to describe the wide range of phenomenon types that can be observed in the grammar and functions of ACs in Otomi and Zapotec languages. We think that the internal diversity of these two families is very interesting from a cross-linguistic perspective. On the one hand, with respect to morphology, Zapotec languages tend to mark ACs via concatenative morphology, whereas Otomi makes use of cumulative exponence, stems alternations, and possibly lexical alternations. On the other hand, with respect to syntax, we observe a promotion/non-promotion continuum both within a single language (Northern Zapotec) and among different language varieties (Otomi languages).

In the following sections, we describe the morphological (Section 2), syntactic (Section 3), and semantic (Section 4) features of ACs in Otomi and Zapotec languages. In Section 5 we enlist a series of constructions that are like ACs either in their form or their functions. Some final remarks are given in Section 6.

2 Morphology

ACs in Otomi and Zapotec involve a wide range of morphological phenomena. These are illustrated in the following sections separately, Otomi on one side, and Zapotec on the other.

2.1 Otomi applicative morphology

Otomi ACs are typologically unusual in their morphology, as they make extensive use of cumulative exponence and stem alternations. These two phenomena are presented in the following two sections. In addition, contrasts in verb paradigms between BCs and ACs are presented in Section 2.1.3.

2.1.1 Cumulative exponence

In Otomi-Mazahua, TAM and person morphosyntactic features are cumulatively encoded in the *inflectional formative* (cf. Palancar 2011a), a clitic that precedes the verb stem. Inflectional formatives, which are represented as prefixes by some authors (e.g. Andrews 1993; Palancar 2011b), can also fuse an applicative-like category called *registration* in Hernández-Green (2016) and *adverbial inflection* in Palancar (2017). In this chapter, we adopt the latter term to refer to this morphosyntactic category. Although adverbial inflection is not an AC in modern Otomi languages, it seems to have been one in Old Otomi (16th century).⁷ The goal applicative in Old Otomi was encoded in prefixes that also encoded grammatical person in a cumulative way: *ä-* ‘1.APPL:GOAL’ for 1st person, and *e-* ‘2/3.APPL:GOAL’ for other persons, as shown in (5).

(5) Old Otomi

- a. *ko=tä-n-ä-ë-k'ĩ*
COP=1-PRS-1.APPL:GOAL-come-2PO
‘I come to you.’
- b. *ko=kä-n-e-yě-gĩ*
COP=2-PRS-2/3.APPL:GOAL-ss\come-1PO
‘you come to me’
- c. *ko=n-e-yěhě*
COP=PRS-2/3.APPL:GOAL-ss\come
‘S/he comes to him/her.’
(Cárceres 1580/1907: 98)

⁷ In this chapter, we do not attempt to reconstruct or theorize about the historical development of ACs in the Otomi family, but we merely present data from different variants and different diachronic stages.

2.1.2 Stem/lexical alternations

Otomi languages (along with Mazahua, their sister language) have benefactive applicative verb stems that can be traced back to a valency-increasing suffix *-H in Proto-Otomi-Mazahua (cf. Bartholomew 1965: 100).⁸ Some Otomi transitive verbs alternate with applicative stems characterized by a stem medial (or final, in monosyllabic stems) glottal segment, as shown in (6) with data from Acazolco Otomi.

- (6) Acazolco Otomi
- | | | | |
|----|--|--|--------------------|
| a. | <i>óra=da</i> | <i>'yo't'i=bi=nũ=ɾ</i> | <i>cómida</i> |
| | now=IRR | SS\make.APPL:BEN=3IO=DET.SG.DIST=SG.3PSR | food |
| | 'now she'll make food for them (i.e., the farmhands)' {txt} | | |
| b. | <i>pɔ=xo=bi</i> | <i>t-hɛhki=bi=k'a</i> | <i>nzǎfi=a='na</i> |
| | so=so=PFV | IMPRS-release.APPL:BEN=3IO=DET.SG.NV | firearm=ENCL=QUOT |
| | 'so they say that someone discharged the firearm on him' {txt} | | |
| c. | <i>ɛtébe=di</i> | <i>ja'-k'i=a=nũ?</i> | |
| | what=IRR | do.APPL:BEN-2PO=ENCL=3SG.DIST | |
| | 'What is she going to do for you?' {txt} | | |

Other transitive verbs in Acazolco Otomi alternate with applicative stems that, although traceable back to *-H, cannot be described simply as a glottal segment. To illustrate this, consider the verb pairs in (7).

- (7) Acazolco Otomi
- | | | | |
|----|-------------|---------------|------------------|
| | base | applicative | |
| a. | <i>hǒi</i> | <i>hǒ'mbi</i> | 'take out' |
| b. | <i>hòni</i> | <i>hòndi</i> | 'look for' |
| | <i>pèni</i> | <i>pèndi</i> | 'wash (clothes)' |
| c. | <i>kúhu</i> | <i>kúnti</i> | 'bring' |

Stem alternations in Otomi also involve tone alternations. The verb stem *pǎ* 'sell' bears rising tone in the BC in (8a), but low tone *pàh* 'sell.APPL:BEN' in the AC in (8b).⁹

⁸ This suffix's reflexes also yield causative verbs in the modern Otomi and Mazahua languages, but these are dealt with in Section 5.1.

⁹ Another case of non-productive, applicative morphology involving stem alternation is found in Sochiápam Chinantec. The monotransitive stem *cué*³² 'give' alternates with the ditransitive stem *cuéh*³² 'give', as can be seen by comparing (ia) to (ib). The recipient is expressed as a PP in the former, but as a NP in the latter.

(8) Acazulco Otomi

a. *ra=pǎ*IPFV=**sell**

'S/he sells it.'

b. *ra=pǎh-pi*IPFV=**sell**.**APPL**:**BEN**-3IO

'S/he sells it to him/her.'

Unlike the Zapotec applicatives presented in Section 2.2.1, below, the Otomi benefactive applicative is no longer productive nowadays. The form contrasts between BCs and ACs illustrated in this section are considered as stem alternations in this chapter, as they all can be traced back to the suffix *-H, and all base/applicative pairs share the same root (i.e., the first syllable of the stem). However, such alternations have features that resemble lexical alternations comparable to intransitive/causative pairs like *die/kill* (provided that the fact is ignored that this pair does not share root): a) not all *-H reflexes result in applicative stems, as in the data in (9a); b) verbs with *-H reflex may not have a counterpart without *-H, as in (9b); and c) not all applicative alternations involve *-H reflexes, as shown in (9c).

- (9) a. *'uayi* 'break (INTR)' *'uahki* 'break (TR)' (causative)
juts'i 'pull up' *ju'ts'i* 'pull up (forcibly) (intensive)
 b. — *pě'ts'i* 'put away'
 — *ndo'ts'e* 'look at (uphill)'
 c. *pa't'i(=bi)* 'heat up (for sb.)'
xálte(=bi) 'fry (for sb.)'

Given the facts shown in (9) above, the question remains whether the alternations observed are to be described at the inflectional level (i.e., stem alternations) or at the lexical level (i.e., lexeme pairs).

- (i) a. *cué³²* *tsú² quie³ [ñi'con² jon²]_{R,PP} tsa³háu²*
 give.TR.INAN.FUT.3 3 money to child.3 tomorrow
 'S/he will give money to her/his child tomorrow.'
 b. *cuéh³²* *tsú² [jon²]_{R,NP} quie³ tsa³háu²*
 give.APPL.INAN.FUT.3 3 child.3 money tomorrow
 'S/he will give her/his child money tomorrow.'
 (Foris 1993: 370)

2.1.3 Paradigm structure of applicative verbs

In Old Otomi, the goal applicative seems to have involved less TAM distinctions than their BC counterparts. Consider the data in Table 1. On the one hand, transitive verbs (*verbo actiuo*) in the *tănă* conjugation¹⁰ are inflected in four different tenses in the indicative mood (*indicatiuo modo*), as well as in imperative (*imperatiuo modo*), optative (*optatiuo modo*), and subjunctive moods (*subjuntiui modo*; Cárceres 1580/1907: 73–78). Constructions with the goal applicative, on the other hand, are attested in only three tenses in the indicative (Cárceres 1580/1907: 98).

Table 1: Defectiveness of the goal applicative subparadigm (compared to *tănă* transitives of Old Otomi).

		Basic	APPL:GOAL
Indicative	Present	✓	✓
	Imperfect preterite	✓	
	Perfect preterite	✓	✓
	Future	✓	✓
Imperative		✓	
Optative		✓	
Subjunctive		✓	

2.2 Zapotec applicative morphology

Applicative morphology in Zapotec languages is rather agglutinative, in contrast with the Otomi data presented in Section 2.1. These morphological characteristics are described in Section 2.2.1. Section 2.2.2 shows that Zapotec ACs have verb paradigms identical to those of BCs, unlike Old Otomi (see § 2.1.3).

2.2.1 Bound morphology

All ACs reported in Zapotec languages involve distinct bound morphology in the verb, either clitics or affixes. The exponent of the recipient/benefactive applicative in Northern Zapotec is the enclitic =*d* ‘APPL:BEN’ illustrated in (10).¹¹

¹⁰ One of the two verb conjugations Cárceres (1580/1907) describes for Old Otomi; the other conjugation is called *tati*. Both conjugations are named after their inflectional formative for 1st person present.

¹¹ It is worth to notice that the applicative =*d* in Northern Zapotec may be found lexicalized as a stem formative in some verbs. For example, the stem *àkd* ‘reckon’ is formed by the root *àk* ‘happen’ plus the applicative =*d*, as illustrated below.

(10) Northern Zapotec

sh-ghe-shàb=d=tò'=nhé' *gó'n=nhá'*
 ICP-go-offer=**APPL:BEN**=1PL:EXCL=3FORM.OBJT bull=DEF
 'We were going to offer them the bulls.' {txt}

Applicative affixes are illustrated with data from Northern Zapotec in (11) and (12). The comitative suffix *-lénh* 'APPL:COM' in (11a) is cognate with the comitative relational noun *lénh* 'PREP:with' in (11b).¹² The instrumental suffix *-é* 'APPL:INSTR' in Northern Zapotec must co-occur with the applicative =*d* in transitive stems, as is shown in (12).

(11) Northern Zapotec

- a. *sh-yêgh-lénh=á'=nhé'...*
 IRR-leave.for.origo-**APPL:COM**=1SG.NOM=3FORM.OBJT
 'I will go back with her/him...'
 b. *sh-yêgh=á' lénh bí'=nhá'*
 IRR-leave.for.origo=1SG.NOM **PREP:with** CLF.PRO:INFOR=DEF
 'I will go back with them (her/him).'

(12) Northern Zapotec

w-dxíxé-é+d=é'=nh *yính' yà'à=nhá'*
 IRR-measure-**APPL:INSTR[TR]**=3FORM.NOM=3INAN chili green=DEF
 'She would weigh the green chili peppers with that (i.e., the scale).'

Some applicative affixes are traceable back to adpositions, and ultimately to content words such as nouns or verbs. The instrumental suffix *-lénh* of Northern Zapotec is an incorporated form of the preposition *lénh* 'with', which in turn derived from the verb *lénh* 'join' (López Nicolás 2016: 162, 349).

-
- (ii) *dx-àk+d=á' bèò' jùnìoh=nhá'*
 ICP-reckon=1SG.NOM month june=DEF
 'I reckon it was in the month of June.' {txt}

¹² Some authors analyze such cases as preposition incorporation. In Zenzontepec Chatino, for instance, "[t]he applicative is coded on the verb by the incorporation of the relational noun *lóʔō* 'with', which otherwise typically flags comitative and instrument NPs" (Campbell 2015: 1417).

- (iii) a. *tz-aa=na nakwɛ=ũ'*
 POT-go=1PL.INCL say=3PL
 '“Let's go”, they said.'
 b. *tz-a+lóʔō nāá? kichi*
 POT-go+RN:with 1SG quern
 'I will take (lit. go with) a quern.' (Campbell 2015: 1417)

Nevertheless, in this chapter we regard the Chatino incorporation as a case of affixation.

2.2.2 Paradigm structure of applicative verbs

The paradigm structure of verbs in Zapotec ACs is the same as that of their corresponding BCs. This is illustrated with the basic verb paradigm of Northern Zapotec in (13) and (14), which consists of a completive form in the a-examples, an incomplete form in the b-examples, and an irrealis form in the c-examples. This structure remains the same with the applicative stems, as can be seen in Examples a', b' and c'.

(13) Northern Zapotec: *shàb* 'offer'

- | | | | |
|----|-----------------------------|-----|--|
| a. | <i>b-shàb</i> 'COMPL-offer' | a'. | <i>b-shàb=d</i> 'COMPL-offer=APPL:BEN' |
| b. | <i>t-shàb</i> 'ICP-offer' | b'. | <i>t-shàb=d</i> 'ICP-offer=APPL:BEN' |
| c. | <i>w-shàb</i> 'IRR-offer' | c'. | <i>w-shàb=d</i> 'IRR-offer=APPL:BEN' |

(14) Northern Zapotec: *chòg* 'cut'

- | | | | |
|----|---------------------------|-----|--|
| a. | <i>b-chòg</i> 'COMPL-cut' | a'. | <i>b-chòg-é+d</i> 'COMPL-cut-APPL:INSTR[TR]' |
| b. | <i>sh-chòg</i> 'ICP-cut' | b'. | <i>sh-chòg-é+d</i> 'ICP-cut-APPL:INSTR[TR]' |
| c. | <i>chòg</i> 'IRR.cut' | c'. | <i>chòg-é+d</i> 'IRR.cut-APPL:INSTR[TR]' |

2.3 Summary

The data presented in this section shows how morphologically diverse ACs can be. On the one hand, Otomi applicative morphology is mostly non-concatenative (i.e., cumulative exponence, stem alternations) or lexical (i.e., lexeme alternations). Old Otomi ACs also seem to have presented a reduced inflectional paradigm compared to that of BCs. Zapotec ACs, on the other hand, are canonically agglutinative, and their inflectional paradigms are identical to those of BCs. Thus, it can be argued that Zapotec and Otomi ACs cover many morphological types among those that can be expected crosslinguistically.

3 Syntax

Some syntactic properties of AppPs and ACs in Otomi and Northern Zapotec are presented separately in Section 3.1 and Section 3.2, respectively. The syntactic status of AppPs with respect of their corresponding expression in BCs is presented first, and then the interactions of ACs with valency of the base verb and with other valency-changing constructions are presented second. Some Otomi-particular idiosyncrasies of the expression of POs in ACs are shown in Section 3.1.3. Finally, in Section 3.2.3, dedicated to Zapotec syntax, we discuss some constructions where the access of adjuncts to extraction operations is only possible if they are applied.

3.1 Otomi applicative syntax

3.1.1 Syntactic status of the AppP

The Otomi benefactive is an obligatory AC, i.e., it is the only non-periphrastic strategy the language has to express a recipient/beneficiary participant, and therefore such participant cannot be expressed in the BC. The beneficiary AppP has the status of an object, whose key morphosyntactic feature is the encoding via person suffixes in transitive verbs. Consider the monotransitive examples from Acazolco Otomi in (15a) and (15b), where the 1st and 2nd person patient is encoded in the person suffixes; 3rd person patients are seldom overtly encoded, as can be seen in (15c). The same verb root with the applicative stem alternation in (15a') and (15b') receives the same person suffixes,¹³ which this time refer to the recipient; 3rd person recipient/beneficiaries are cross-referenced by the suffix *bi* '3IO' in most cases.¹⁴

(15) Acazolco Otomi

monotransitive	applied R/BEN
a. <i>bi=mbǎ-gi</i>	a'. <i>bi=mbǎh-ki</i>
PFV=SS\sell-1PO	PFV=SS\sell.APPL:BEN-1PO
's/he sold me'	's/he sold it to me'
b. <i>bi=mbǎ-k'i</i>	b'. <i>bi=mbǎ'-k'i</i>
PFV=SS\sell-2PO	PFV=SS\sell.APPL:BEN-2PO
's/he sold you'	's/he sold it to you'
c. <i>bi=mbǎ</i>	c'. <i>bi=mbǎh-pi</i>
PFV=SS\sell	PFV=SS\sell.APPL:BEN-3IO
's/he sold him/her/it'	's/he sold it to him/her'

Other Otomian languages have similar constructions to those in (15a'-c'), although the exact status of the recipient/beneficiary object is analyzed in different ways. For example, it has been analyzed as primary object (PO) in Acazolco Otomi (Hernández-Green 2016) and in Tlahuica (Martínez Ortega 2016), while it is analyzed as indirect object in Querétaro Otomi (Palancar 2009) and in Mazahua (Knapp 2008; Mora-Bustos 2019: 520, among others).

AppPs licensed via the goal applicative seem to have been objects in 16th century Old Otomi (OO) as well, as they could also be cross-referenced via person suffixes. An

¹³ The person suffixes *-gi* '1PO' and *-bi* '3IO' have the allomorphs *-ki* and *-pi* after voiceless segments, respectively; reflexes of *-H are /'/(= glottal stop) before glottalized stops/affricates.

¹⁴ As Hernández-Green (2022) shows for San Felipe Otomi, the object-marking pattern for 1st and 2nd person is secundative, whereas the pattern for 3rd person is indirective. The cases where a 3rd person object is overtly encoded by the suffix *-bi* '3IO' are discussed in Section 3.3.

example of this is shown in (16). However, the frequency in day-to-day language use and obligatoriness of such constructions remains unknown.

- (16) Old Otomi
ko=kä-n-e-yě-gi
 COP=2-PRS-2/3.APPL:GOAL-SS\come-1PO
 ‘you come to me’
 (Cárceres 1580/1907: 98)

In modern Otomi languages, adverbial inflection cognate with the goal applicative illustrated above in (16) does not promote adjunct phrases the way OO used to, as we will show in Section 5.1.

3.1.2 ACs and valency in Otomi

In this section we discuss some interactions between ACs and valency in Otomi. On the one hand, ACs may be restricted to verbs with certain valency, while others may not have such restrictions. On the other hand, some valency-changing processes (causative, reflexive, and the like) may co-occur with some ACs, but not with others. This subsection does not contain examples of the Old Otomi goal applicative, as it is only attested with the monovalent verb *ěhě* ‘come’ in the available data in Cárceres (1580/1907).

The Otomi benefactive applicative is restricted to bivalent and trivalent verb stems, as is shown in (17), (18), and (19) below. The bivalent verb *’ot’i* ‘make’ in (17a) can occur in benefactive ACs as in (17b). Similarly, the trivalent verb *xit’i* ‘pour (liquid in recipient)’ illustrated in (18a) receives a fourth beneficiary participant in the AC in (18b). In contrast, the monovalent verb *’uayi* ‘break’ shown in (19a) does not acquire a second, beneficiary-type participant with the stem-medial segment /h/, but a causer agent, as can be seen in (19b).

- (17) Acapulco Otomi
- a. *ja=da* *’yot=k’a=ch* *cómida*
 and=IRR ss\make=DET.SG.NV=DIM food
 ‘And she used to cook food.’ {txt}
- b. *óra=da* *’yo’t’i=bi=nũ=í* *cómida*
 now=IRR ss\make.APPL:BEN=3IO=DET.SG.DIST=SG.3PSR food
 ‘Now she’s going to cook them their food.’ {txt}
- (18) Acapulco Otomi
- a. *da=xit=k’a* *téhe=k’a* *gásila*
 IRR=pour=DET.SG.NV water=DET.SG.NV pan
 ‘She would pour the water in the pan.’ {txt}

- b. *da=xi't'i=bi=ř* *gásila*
 IRR=pour.APPL:BEN=3IO=SG.3PSR pan
 'S/he would pour it in their pan for them.'

(19) Acazulco Otomi

- a. *bi='uayi*
 PFV=break
 'It broke.'
- b. *bi='uahki*
 PFV=break
 'S/he broke it.'
- (Not: 'It broke for/despite someone.')

Intransitive/causative verb pairs involving the same stem alternant process as the one found in benefactive ACs of Otomi (both reflexes of the valency-increasing suffix *-H of Proto-Otomi-Mazahua; Bartholomew 1965: 100) are discussed in Section 5.1.

Otomi ACs are observed to interact with reflexive-reciprocal constructions.¹⁵ The benefactive applicative of Otomi does not seem to have restrictions to combine with reflexive-reciprocal constructions; we do not have enough data from Old Otomi to assess interactions between the goal applicative and such constructions. The following examples show the Otomi middle marker N- (see Palancar 2006), which has middle, antipassive, reflexive, and reciprocal functions, co-occurring with the benefactive applicative. The monotransitive stem '*úni* 'give away' in Acazulco Otomi in (20a) alternates with the applicative (ditransitive) stem '*úndi* 'give' in (20b); the latter can receive the middle prefix N- (allomorph *nch-* before glottals) in the reciprocal construction in (20c).

(20) Acazulco Otomi

- a. *bi='úni*
 PFV=give.away
 'S/he gave it (away).'
- b. *bi='úndi(=bi)*
 PFV=give.APPL:BEN=3IO
 'S/he gave it to him/her.'
- c. *bi=nch-'úndi*
 PFV=MID-give.APPL:BEN
 'They gave it to each other.'

Lastly, Otomi languages have an impersonal voice contrast that suppresses the agent in the verb that is used for topical patients without promoting them to subject (see

¹⁵ No such interactions are possible in Northern Zapotec.

Hernández-Green 2018).¹⁶ This agent-suppressing construction can co-occur with the benefactive applicative construction, as is illustrated in (21). In this example, the applicative exponent is the alternate ditransitive stem *tam* of the monotransitive stem *tai* ‘buy’; the impersonal passive is marked by the aspiration of the initial consonant /t/.

(21) Eastern Highlands Otomi

- a. *xón=dón-xǎ't'ǎ=’a=rá* *pahni=’a=zí*
 STA=flower-cactus=DET.SG.NV=SG.3PSR shirt=DET.SG.NV=DIM
hmute=bi tam-bi
 girl=PFV IMPRS\buy.APPL:BEN-3IO
 ‘The blouse that was bought for the girl is cactus-flower pink.’
 (Voigtlander, Echegoyen, and Bartholomew, ms.)

3.1.3 The morphological expression of beneficiary AppPs in Otomi

The overt encoding of 3rd person objects in Otomi—which we mentioned in passing in § 3.1.1—is at least partially determined by the basic-applied distinction. This distinction is not entirely straightforward, and it is described in the following paragraphs.

In general, basic 3rd person objects tend to be unmarked, while applied 3rd person objects tend to be encoded in the verb via the suffix *-bi* ‘3IO’ (or its clitic alternate form *=bi*). These tendencies are based on the number of lexemes that follow one pattern or the other, from which very few verbs deviate. For example, only one monotransitive verb has been identified in Acazolco Otomi that admits, and even requires, the 3rd person marker, as illustrated in (22). In this example, the object NP in brackets is cross-referenced in the verb by the enclitic *=bi* ‘3IO’.

(22) Acazolco Otomi

- dí=’mbá’t’i=bi* [*gá’tho=na hnĩhni*]_o
 1.PFV=go.around=3IO all=DET.SG.PROX village
 ‘We went around this village’ {txt}

Labile verbs that are either monotransitive or ditransitive, such as *’énā* ‘say’ and *’adi* ‘ask (for)’ are rare in Acazolco Otomi, and they take the 3rd person marker only in dit-

¹⁶ Northern Zapotec lacks such morphological strategy. Agent suppressing in this language is achieved by using the 3rd person formal pronoun in the subject position, plus a suffix that indicates 3rd person plural subject, as illustrated in the example below. The out-of-context interpretation of this example is ambiguous between an impersonal and a definite 3rd person plural agent.

- (v) *b-s+²-òt=łhát=é’* *béné=dáo’=nhà’*
 COMPL-PL.3S-beat=ADV=3FORM.NOM person=AFF=DEF
 ‘They/someone beat that person.’ {txt}

ransitive uses. The monotransitive construction with the verb '*adi* 'ask (for)' in (23a) does not admit the suffix *-bi* '3IO', but the ditransitive construction in (23b) requires it.

(23) Acazolco Otomi

- a. *da*=*'ya*'=*k'a*=*í* *ólla*
 IRR=SS\ask.for=DET.SG.NV=SG.3PSR saucepan
 'They ask for their (corresponding) saucepan (full of *mole*).' {txt}
- b. *nuxu nt'a, bi*=*t*-'*ah-p*'=*ru* *cúbeta*
 CONTR one PFV=IMPRS-ask.for-3IO=DET.SG.DIST bucket
 'As for the other one, they asked him for the bucket.' {txt}

Acazolco Otomi has only a few basic ditransitive verbs (*xifi* 'tell', '*andi* 'ask', *héhte* 'put [clothes] on [sb.], *tühti* 'load [burden] on [sb.], *xit'i* 'pour [liquid in recipient]', *kõts'i* 'daub [substance] on [surface]'), none of which has been attested to receive the 3rd person marker in a 12-hour corpus. Consider the ditransitive constructions in (24) without suffix *bi* '3IO'.

(24) Acazolco Otomi

- a. *da*=*xit*=[*k'a téhe*]_T=[*k'a gásila*]_{Goal}
 IRR=pour=DET.SG.NV water=DET.SG.NV pan
 'She would pour the water in the pan.' {txt}
- b. *ja*=*'yand-ui*=[*na mbehtsi*=*a*]_R
 and=SS\ask-2PL=DET.SG.PROX boy=ENCL
lájama méro mjóni ko=ra nde=na xühtsi=*a*]_T
 whether precisely really FOC=IPFV want=DET.SG.PROX girl=ENCL
 'Ask this young man whether he really wants this young woman.' {txt}

In contrast with basic monotransitives and ditransitives, where the overt expression of the 3rd person object in the verb is very infrequent, the vast majority of applied ditransitives require the 3rd person marker to cross-reference the recipient/beneficiary. The 3rd person marker is optional for only three derived ditransitive verbs, listed in (25) below. Examples (26a) and (26b) illustrate the applied verb '*úndi* 'give.APPL:BEN' with and without the 3rd person object marker, respectively.

(25) Acazolco Otomi

- monotransitive applicative
'úni 'give away' '*úndi*(=*bi*) 'give (to sb.)'
'údi 'show' '*úhti*(=*bi*) 'show (to sb.)'
jüt'i 'pay' *jüt't'i*(=*bi*) 'pay (to sb.)'

(26) Acazolco Otomi

- a. *ʒtɛbɛ' = k'a gidi = 'úndi = bi m-t'ǎ?*
 what=3SG.NV 2.IRR=give.APPL:BEN=3IO other-one
 'What else are you going to give them?' {txt}
- b. *xo = gidi = 'únd-ga*
 so=1.IRR=give.APPL:BEN-1
 'So, I used to give that (i.e., nourishment) to them (i.e., my children).' {txt}

Table 2 below summarizes the conditions in which 3rd person objects are overtly encoded in the verb in Acazolco Otomi. In general, the 3rd person marker is ungrammatical in monotransitives and basic ditransitives, except for three lexemes (numbers “1” and “2” in parentheses). In contrast, applied ditransitives tend to encode the 3rd person recipient/beneficiary overtly, except for three verbs (number “3” in parentheses) where its expression is optional.

Table 2: Overt expression of 3rd person object per valency types in Acazolco Otomi.

	Obligatory	Optional	Ungrammatical
Monotransitive	(1)		✓
Basic ditransitive	(2)		✓
Applied ditransitive	✓	(3)	

Tendencies like those shown in Table 2 are also observed in other Otomi languages, such as Eastern Highlands Otomi. In this language, (di)transitive verbs are classified into two groups: “direct/indirect complement” (*complemento directo/indirecto*), where 3rd person objects remain unmarked, and “benefactive complement” (*complemento benefactivo*), where it is marked in most (if not all) cases (Voigtlander and Echegoyen 1985: 170–198). All verbs in the latter group present reflexes of Proto-Otomi-Mazahua *-H, which is associated to applicative morphology in Acazolco Otomi (see § 2.1.2).

3.2 Zapotec applicative syntax

3.2.1 Syntactic status of the AppP

The Zapotec comitative AC optionally alternates with a BC where the comitative participant is introduced by the preposition *lénh* ‘with’, illustrated in (27). Northern Zapotec POs have four morphosyntactic properties that comitative AppPs acquire once they are promoted via the suffixation of *-lénh* ‘APPL:COM’, as shown in (28). The AppP *dà’ Ísídòrònà’* ‘the late Isidoro’ in (28a) is a non-oblique phrase that immediately follows the subject (in this case, the enclitic =á’ ‘1SG’); these are two of the key properties of POs.

The possibility of the AppP being pronominalized by an object pronoun is illustrated in (28b). Finally, the construction in (28c) shows the possibility of the AppP being fronted to the preverbal position without the need of an *in situ* resumptive pronoun—another property of POs. Example (29a) shows the occurrence of a resumptive pronoun when S/A is fronted; the absence of this pronoun in this syntactic context results in ungrammaticality, as in (29b).

(27) Northern Zapotec

y-íde=òʔ [*lhénh* *nhàdàʔ*]_{PP}
IRR-come=2SG PREP:with 1SG
'You're coming with me.' {txt}

(28) Northern Zapotec

- a. *b-ey+zàʔ-lhénh=áʔ* [*dàʔ* *Ísidôrò=nhàʔ*]_{AppP}
COMPL-leave.for.origo-APPL:COM=1SG.NOM dead Isidoro=DEF
'I went back with the late Isidoro.' {txt}
- b. *sh-yêgh-lhénh=áʔ=[nhéʔ]*_{AppP} *we-òtèʔ* *zhîlh=nhàʔ*
ICP-go-APPL:COM=1SG.NOM=3FORM.OBJT NMLZ-sell comal=DEF
'I was going with her to sell *comales*.' {txt}
- c. [*bíʔ=nhàʔ*]_{AppP} *go-àt-lhénh=éʔ=X*
CLF.PRO:INFOR=FOC COMPL-die-APPL:COM=3FORM.NOM=EVID
'WITH IT (i.e., the baby) did she die, indeed.' {txt}

(29) Northern Zapotec

- a. *nhètòʔ=nhàʔ* *ba=dxìʔ=tòʔ*
1PL.EXCL=FOC TERM=be.seated=1PL.EXCL
'WE were already seated' {txt}
- b. * *nhètòʔ=nhàʔ* *ba=dxìʔ*
1PL.EXCL=FOC TERM=be.seated
Intended meaning: 'WE were already seated'

Lastly, Northern Zapotec has an optional recipient/benefactive applicative marked with the clitic =*d* 'APPL:BEN'. AppPs in this AC acquire all the object morphosyntactic properties illustrated in (28) above. Only the pronominalization of the recipient AppP via an object pronoun (=ndàʔ '1SG.OBJT') is illustrated in (30a). The corresponding BC, where the source participant is introduced by a relational noun, is given in (30b).

(30) Northern Zapotec

- a. *t-shàb=d=báʔ=ndàʔ* *shkwé* *góʔn*
ICP-offer=APPL:BEN=3INFOR=1SG.OBJT pair bull
'He's offering me a couple of bulls.' {txt}

- b. *shêgh-nàb=sházé=ò'=b lhàò bínhà'*
 IRR.go-ask.for=ADV=2SG=3AN **RN:to** CLF.PRO:INFOR
 'You'll have to go ask him (for the bulls).'

3.2.2 ACs and valency in Zapotec

In Northern Zapotec, applicative morphology occurs more frequently with mono- and bivalent predicates. However, trivalent predicates can occasionally be seen taking applicatives, as illustrated in (31). The trivalent predicate in (31a) can take the comitative applicative *-lénh* 'APPL:COM', as can be seen in (31b).

(31) Northern Zapotec

- a. *sh-yèb [_]_{CS} chìxh=ò'=nhà' xhògh*
 ICP-spread PF.tortilla=PSR2SG=DEF hot.sauce
 'You spread hot sauce on your tortilla.' {txt}
 b. *sh-yèb-lénh=ò'=bá' chìxh=ò'=nhà' xhògh*
 ICP-spread-**APPL:COM**=2SG=3INFOR PF.tortilla=PSR2SG=DEF hot.sauce
 'You and he/she spread hot sauce on your tortilla.'

The low frequency of trivalent predicates with applicatives is probably because most underived predicates in Zapotec languages are monovalent, only a few are bivalent, and far fewer are trivalent.

In addition, Northern Zapotec has a causative construction that can co-occur with both the comitative and the recipient/benefactive applicatives. Only the former is illustrated here. The Northern Zapotec prefix *g^w-* 'CAUS' in (32a) introduces a causer to the bivalent stem *è'ègh* 'drink'. In (32b), a causer and a concomitant agent are introduced by the causative prefix *g^w-* and the comitative applicative *-lénh*, respectively.

(32) Northern Zapotec

- a. *bitò b-lhé'y+d=à' shí z-íde-g^w-è'ègh=bá'=b nhis=nhà'*
 NEG COMPL-see=1SG.NOM SUB PRF-come-**CAUS**-drink=3INFOR=3AN water=DEF
 'I didn't see that he came to make them (i.e., the bulls) drink water.' {txt}
 b. *z-íde-g^w-è'ègh-lénh=bá'=nhé'=b nhis=nhà'*
 PRF-come-**CAUS**-drink-**APPL:COM**=3INFOR=3FORM.OBJT=3AN water=DEF
 'He came with him to make them drink water.'

3.2.3 Applicative-conditioned constructions

Both Northern Zapotec ACs from in Section 3.2.2 are described as optional. As it turns out, those optional ACs are only so in simple clauses, but they are obligatory in most

adjunct *extraction* constructions (i.e., interrogation, relativization, focalization, where a phrase is said to be fronted, or dislocated to the left, to a preverbal position)¹⁷ and with high-topicality adjuncts (see Peterson 2007: 83, 159). In other words, most adjuncts have access to such constructions only if they are applied. In the following paragraphs, we provide examples of ACs allowing for the extraction of adjuncts in Northern Zapotec.

One example of interrogated adjunct is shown in (33) below. The interrogated comitative in the Northern Zapotec example in (33a) requires the applicative suffix in the verb, otherwise the construction is ungrammatical, as shown in (33b), and (33c) with the comitative adjunct introduced by the comitative preposition.

(33) Northern Zapotec

- a. *nhõ=nhà' shêgh-lhénh=ò'*
 who=FOC IRR.go-**APPL:COM**=2SG
 'Who are you going with?' {txt}
- b. **nhõ=nhà' shêgh=ò'*
 who=FOC IRR.go=2SG
Intended meaning: 'Who are you going with?'
- c. **lhénh nhõ=nhà' shêgh=ò'*
PREP:with who=FOC IRR.go=2SG
Intended meaning: 'Who are you going with?'

Relativization of adjuncts is illustrated in (34). Maleficiary relativization requires the use of the applicative =*d* in Northern Zapotec in (34a); the same construction without the applicative, as in (34b), is ungrammatical.

(34) Northern Zapotec

- a. *béné=nhà' [nhó=nhà' b-k^wàshè'=d=á'*
 person=DEF PRO.REL=FOC COMPL-hide=**APPL:BEN**=1SG.NOM
mêdxoh=nhà']_{RC}
 money=DEF
 'The person from whom I hid the money.'
- b. **béné=nhà' nhó=nhà' b-k^wàshé'=á' mêdxoh=nhà'*
 person=DEF PRO.REL=FOC COMPL-hide=1SG.NOM money=DEF
Intended meaning: 'The person from whom I hid the money.'

As for focalization, consider the Northern Zapotec example in (35a), where the suffix *-lhénh* 'APPL:COM' is used to put the comitative phrase *dà' táwánhà'* 'my late grandmother' in focus. The absence of the applicative enclitic results in an ungrammatical

¹⁷ Extraction seems to involve what generative approaches describe as *wh-movement* (see Carnie 2013: 362).

construction, as in (35b), even with the preposition *lhénh* ‘with’ heading the comitative phrase, as in (35c).¹⁸

(35) Northern Zapotec

- a. *dà’ táó=á=nhá’ dx-òtè’-lhénh=á’ zhilh=nhà’*
 dead PF.grandmother=PSR.1SG=FOC ICP-sell-**APPL:COM**=1SG.NOM *comal*=DEF
 ‘WITH MY LATE GRANDMOTHER I used to sell *comales*.’ {txt}
- b. **dà’ táó=á=nhá’ dx-òtè’=á’ zhilh=nhà’*
 dead PF.grandmother=PSR.1SG=FOC ICP-sell=1SG.NOM *comal*=DEF
Intended meaning: ‘WITH MY LATE GRANDMOTHER I used to sell *comales*.’
- c. **lhénh dà’ táó=á=nhá’ dx-òtè’=á’ zhilh=nhà’*
PREP:with dead PF.grandmother=PSR.1SG=FOC ICP-sell=1SG.NOM *comal*=DEF
Intended meaning: ‘WITH MY LATE GRANDMOTHER I used to sell *comales*.’

3.3 Summary

In this section we have illustrated the (primary) object status AppPs acquire in ACs in Otomi and Northern Zapotec. In the case of Zapotec, object morphosyntactic properties include both coding and behavior-and-control properties (see Givón 2001: 175–178), while Otomi primary objects can be identified by only one coding property (i.e., person suffixes). As for obligatoriness, while the Otomi benefactive AC is obligatory, both the comitative and the benefactive ACs in Northern Zapotec are optional (in simple clauses; see below for details).

We also have discussed the interactions of ACs with the valency of the base verb, as well as with valency-changing constructions. The possible co-occurrences of the Northern Zapotec and Otomi ACs with predicates with a certain valency and valency-changing constructions are summarized in Table 3 below. The symbol “✓” indicates the possibility of the combination of the constructions and categories that intersect in each cell. The

¹⁸ Many examples of AC in works about other Otomanguan languages contain an extracted adjunct. Consider the examples from Peñoles Mixtec (Otomanguan > Mixtecan) and Temalacayuca Popoloca (Otomanguan > Popolocan) in (via) and (vib), respectively, where the applicative markers and fronted adjuncts have been put in bold.

- (vi) a. *ni-ki-xi ña¹dĩ²³ [ni³-x-e²nde²-ndĩ²³=n ti³kwe²³]_{RC}*
 COMPL-R-come **woman** COMPL-R-pick-**APPL:COM**=2SG orange
 ‘the woman you picked the orange with came.’
 (Ramírez Pérez 2014: 67–68)
- b. *mé’è rí-t-jì-xì níjá’i*
that PROG-HAB-go.A1-**APPL:INSTR** thither
 ‘That’s why I’m going there.’
 (adapted from Nakamoto 2017: 129)

shaded cells indicate that the valency-changing construction from the first column is not found in the language.

Table 3: Co-occurring constructions in Northern Zapotec and Otomi.

	Northern Zapotec		Otomi	
	REC/BEN	COM	BEN	GOAL
monovalent		✓		✓
bivalent	✓	✓	✓	?
trivalent	✓	✓	✓	?
reflexive-reciprocal			✓	?
impersonal passive			✓	?
causative	✓	✓		

Apart from certain valency-changing constructions not being found in both languages, there are some interesting differences between the two. First, the Otomi benefactive AC co-occurs with all the valency-changing constructions that were investigated, while the Northern Zapotec ACs are more restricted. Second, some semantic motivations may lie beneath these restrictions in Northern Zapotec: while events that combine comitative and reflexive do not seem to make much sense, comitative and reciprocal semantics may be conceived so close to each other that their co-occurrence may be deemed redundant.

We also have shown the special morphological expression that 3rd person applied POs have in Otomi ACs (mostly encoded by the object marker *-bi* ‘3OBJ’) with respect to BCs (left unmarked in most cases). Finally, we have presented examples of the obligatoriness of applicative morphology in the verb in Northern Zapotec when optionally applicable adjuncts are extracted (i.e., interrogated, relativized, or focalized pre-verbally).

4 Semantics

This section deals with the semantic properties of AppPs in Northern Zapotec and in Otomi. Section 4.1 and Section 4.2.1 review the semantic types AppPs cover in Otomi and in Northern Zapotec, respectively. The interplay of ACs with propositional semantics (in Sothern Zapotec) is briefly presented in Section 4.2.2.

4.1 Semantic roles in Otomi ACs

All Otomi ACs are semantically dedicated, i.e., they apply semantically homogeneous paradigms of adjuncts. For instance, all the attested examples of Old Otomi ACs seem to

be dedicated for coding goal-like participants as primary objects. One of such examples is shown in (36).

- (36) Old Otomi
ko=kä-n-e-yě-gi
 COP=2-PRS-2/3.APPL:GOAL-SS\come-1PO
 ‘You come to me.’
 (Cárceres 1580/1907: 98)

Otomi (recipient)/benefactive ACs are dedicated to dative-like AppPs, among which several closely-related semantic subtypes can be identified. In Acazolco Otomi, the benefactive AC applies recipient/beneficiary participants, including semantically (and/or typologically) related roles such as maleficiaries, sources, and causees/manipulees. One example of each is provided in (37a–e), respectively. The applied participant is often coded as possessor of the T(heme) phrase in an external possessor construction (Payne and Barshi 1999: 3), as in (37c) with the clitic =í ‘PL.3PSR’.

- (37) Acazolco Otomi
- a. *dádi=gü't'i=bi=ga='mbe=nü*
 1.HAB=SS\pay.APPL:BEN=3IO=1=PL.EXCL=3SG.DIST
 ‘We used to pay her.’ {txt}
 - b. *tébe'=k'a=xo=ndádi* *ta't'i=bi=ga*
 what=3SG.NV=ever=1.HAB find.APPL:BEN=3IO=1
 ‘Whatever I found for him.’ {txt}
 - c. *porque=ngi* *'mbēh-p=k'u=í* *ndóni='na*
 because=PST.IRR IMPRS\steal.APPL:BEN-3IO=DET.PL.NV=PL.3PSR COW=QUOT
 ‘Because his cattle were going to be stolen (from him).’ {txt}
 - d. *hóndi=k'u* *zétu='na* *k'u=álaja*
 take.APPL:BEN=DET.PL.NV cloth=QUOT DET.PL.NV=jewel
 ‘They took the clothes and jewelry away from them.’ {txt}
 - e. *jón=gu* *hehki=bi=ga=gwa=du* *kúhu*
 nobody=1.IRR release.APPL:BEN=3IO=1=LOC.PROX=IRR.VEN enter.hither
 ‘I will not let anybody enter here.’ {txt}

4.2 Zapotec ACs

4.2.1 Semantic roles

Northern Zapotec’s comitative AC, as its name suggests, is dedicated for AppPs in the role of companion. Example (38) illustrates this dedicated comitative AC, encoded by the suffix *-lénh* ‘APPL:COM’ (cf. *lénh* ‘PREP:with; join’).

(38) Northern Zapotec

kátèʔ b-s-ey+lháʔ-lhéñh=éʔ=[nhéʔ]_{com}

ADV COMPL-PL.3S-return.to.origo-**APPL:COM**=3FORM.NOM=3FORM.OBJT

‘When they came back (to their village) with him.’ {txt}

As for the recipient/benefactive AC of Northern Zapotec, a dedicated AC involving the clitic =*d* ‘APPL:BEN’, it applies participants with roles of recipient (39a), source (39b), and maleficiary (39c); as for the maleficiary, this reading is given by pragmatic inference from the participant’s affected interests in the event.

(39) Northern Zapotec

a. *t-shàb=d=báʔ=[ndàʔ]_R shkʷé góʔn*

ICP-offer=**APPL:BEN**=3INFOR=1SG.OBJT pair bull

‘He’s offering me a couple of bulls.’ {txt}

b. *[léʔ=nhàʔ]_S sh-yêgh-nàb=d=tòʔ yà=káʔ*

3FORM=FOC ICP-go-borrow=**APPL:BEN**=1PL.EXCL firearm=PL:DIST

‘It WAS HIM we were going to borrow the guns from.’ {txt}

c. *b-kʷàshèʔ=d=òʔ=[báʔ]_M mēdxoh=nhàʔ*

COMPL-hide=**APPL:BEN**=2SG=3INFOR money=DEF

‘You hid the money from him/her.’

4.2.2 Interplay of ACs with meaning

No AC in Northern Zapotec (nor in Otomi) have been reported to modify the propositional interpretation with respect to BCs beyond the addition of one participant. However, one case of interplay between an AC and semantics is observed in Southern Zapotec. This language has a comitative applicative construction that adds a concomitant subject to monovalent predicates (Vásquez 2016: 153). The exponent of this AC is the suffix *-niě* ‘APPL:COM’. Consider the contrast between the one-argument event in (40a) with the two-argument event in (40b) with the comitative suffix (in bold). The latter construction allows both a comitative interpretation (number 1) and an affected-concomitant interpretation (number 2).¹⁹

(40) Southern Zapotec

a. *lè xèy g-uéy*

SF man COMPL-go

‘The man left.’

¹⁹ This ambiguity (or perhaps rather, vagueness) seems to be pervasive in comitative constructions, regardless of the possible involvement of applicative marking (Denis Creissels, p.c.).

- b. *lè xěy g-uèy-nié Míngw ló dzí'n*
SF man COMPL-go-APPL:COM Domingo RN:face work
1. 'The man went to work with Domingo.'
2. 'The man took Domingo to work.'
(Vásquez 2016: 154)

4.3 Summary

Table 4 below summarizes the semantic roles associated (indicated with ✓) with each AC in Northern Zapotec and in Acazulco Otomi. The first column contains general role-types, and more specific role-types are listed in the second column.

Table 4: Semantic roles applied by each AC in Acazulco Otomi and Northern Zapotec.

		Otomi		Northern Zapotec	
		BEN	GOAL	REC/BEN	COM
a. Dative-like	Recipient	✓		✓	
	Maleficiary	✓		✓	
	Source	✓		✓	
	Beneficiary	✓			
	Causee/manipulee	✓			
b. Comitative					✓
c. Goal			✓		

Table 4 shows that applicatives in both languages follow the typological trend of having at least a benefactive and/or a comitative AC (along with instrumental ACs as well; Zúñiga and Creissels, this volume). Applicativization of locative relations (row “Goal”) is only found in Old Otomi.

In this section we saw that ACs in Otomi (beneficiary and goal) and Northern Zapotec (beneficiary and comitative) are all semantically dedicated, that is, they are specialized to apply semantically homogeneous paradigms of adjuncts. Additionally, we saw that AC can sometimes switch the (expected) propositional semantics of a sentence with respect to the BC, as is the case of the comitative AC of Southern Zapotec. This has not been reported in either Otomi languages or in Northern Zapotec.

5 Lookalikes

In the following sections, we present constructions in Otomi and Zapotec that are morphologically similar to ACs, but that do not have their syntactic properties (Zúñiga and Creissels, this volume). No syntactic AC lookalikes (i.e., syntactically, but not morphologically, similar to ACs) were identified in the languages described.

Phrases that are either promoted or registered (i.e., highlighted but not promoted; cf. Norman 1978; Aissen 1990; Zavala 2000: 859–860; López Nicolás 2009: 104–105; Hernández-Green 2016) via morphological devices similar to those of ACs have different syntactic statuses according to the construction involved and the grammar of the individual languages. These syntactic statuses range from core grammatical roles such as subject (promotion) to mere non-core grammatical roles (registration), with at least one intermediate category in between. This continuum can be represented as is shown in Figure 2.

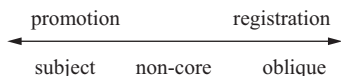


Figure 2: Promotion-registration continuum.

5.1 Otomi morphological lookalikes

The following paragraphs describe constructions where the relevant participant is coded as subject. The valency-increasing suffix *-H of Proto-Otomi-Mazahua (Bartholomew 1965: 100) yielded applicative stems on the one hand (§§ 2.1.2, 3.1.1, 3.1.3), and causative stems on the other hand. Similar to the applicative stems with *-H reflexes, the causative pairs with this morphology seem to be lexicalized, but they present more idiosyncrasies. First, while practically any bivalent verb can accept an extra beneficiary-like participant (with or without overt applicative exponence), not every monovalent verb has a causative counterpart with *-H reflexes. For example, Acazulco Otomi has intransitive/causative pairs involving *-H, illustrated in (41a), but also analogous pairs without *-H, as in (41b). The roman numerals in parentheses indicate the conjugation each verb belongs to.

(41) Acazulco Otomi

	intransitive		causative		
a.	'uayi (I)	'break'	'uahki (I)	'break'	
	zá't'i (IV)	'stick'	zá't'i (III)	'stick'	
	pó'ts'e (I)	'go up'	pó'ts'e (III)	'carry up'	
b.	táy'i (I)	'fall'	táy'i (III)	'drop'	(cf. *táhki)
	'ot'i (I)	'dry'	'ot'i (III)	'dry'	(cf. *'o't'i)
	kút'i (I)	'enter'	kút'i (III)	'enter'	(cf. *kút't'i)

Second, intransitive/causative pairs—with or without *-H reflexes—often involve a change of conjugation, which is a lexical property of verbs. This is shown in 5 out of the 6 pairs in (41) above. In contrast, the benefactive applicative construction never involves conjugation alternations. Third, many bivalent verbs that seem to have reflexes of *-H do not have intransitive counterparts (42a) or may even be intransitives themselves (42b).

(42) Acazolco Otomi

- a. *ju'ts'i* 'pull up (forcibly)' (cf. *juts'i* 'pull up; carry hanging from hand')
ndɔ'ts'e 'look at (uphill)'
pě'ts'i 'keep; put away'
hě't'i 'look at (downhill)'
hěhki 'cut off'
- b. *gáhki* 'lose weight'
něhki 'be visible'
záhki 'get stronger'

The registration of instrument phrases via adverbial inflection (called *circumstantial mood* in Voigtlander and Echegoyen 1985: 222) in Eastern Highlands Otomi [otm] is characterized by unrestricted non-oblique expression, but no other observable object properties. This is an optional construction where the oblique expression of the instrument in the BC alternates with its non-oblique expression in the construction with registration, as illustrated between (43a) (basic inflection *bi* 'PFV') and (43b) (adverbial inflection *í* 'PFV.ADV'), respectively. An instrument registered phrase (henceforth RegP) can also be expressed by non-oblique pronouns, as is the case with '*u* '3PL' in (44). Note that this pronoun is not a morpheme on the verb, but a clitic hosted by the subject NP *gogu* 'deafness'.

(43) Eastern Highlands Otomi

- a. *bi=gahk=ra* *dähpo* [*nange ra juai*]_{InstrPP}
 PFV=clear=SG forest with SG machete
 'He cleared the forest with a machete.'
- b. *í=gahk=ra* *dähpo* [*ra juai*]_{Instr-NP}
 PFV.ADV=clear=SG forest SG machete
 'He cleared the forest with a machete.'
 (Palancar 2012)

(44) Eastern Highlands Otomi

- ní=yän=ra* *gogu*=[*u*]_{Instr-PRO}
 IPFV.ADV=be.cured=SG deafness=3PL
 'Those (leaves) cure deafness.' (Lit. 'Deafness is cured with those.')
 (Voigtlander, Echegoyen, and Bartholomew, ms.)

No morphosyntactic properties like those of patients (or other core grammatical roles) can be observed in the construction illustrated in (43b) and (44) above, other than the expression of the instrument as a non-oblique phrase (see Palancar 2012). As was mentioned in Section 3.1.1, one key morphosyntactic property of core grammatical roles in Otomi is the cross-referencing in the verb morphology via person markers. This is a somewhat elusive feature of Otomi grammar, as instruments (and other adverb-like semantic roles) tend to be 3rd person, and 3rd person participants are overtly encoded in the verb only rarely, outside of recipient/beneficiary participants. In the available corpus of Eastern Highlands Otomi, no examples of instruments (or other peripheral participants) have been identified that bear person markers (1st, 2nd, or 3rd) in co-reference to the RegP. This fact is in line with Palancar's (2012) assessment of the syntactic status of such phrases.

In the last construction, Acazolco Otomi adverbial inflection, the RegP neither acquires object (or subject) properties nor can it drop the preposition if the adjunct noun is present, either *in situ* or in a fronted position. Consider the data in (45). The instrument PP in the BC (basic inflection *dí* '1.PFV') in (45a) must keep the preposition *ko* 'with' (< Spanish *con* 'with') in the corresponding construction with registration (adverbial inflection *dá* '1.PFV.GEN'), shown in (45b). The latter is used to put the instrument in focus, while the former is unspecified in this respect.

(45) Acazolco Otomi

- a. *dí=k'úhki=ga* [*ko=ya=mí* *ts'í*]_{INSTR-PP}
 1.PFV=snap=1 with=DET.PL.PROX=1PSR tooth
 'I snapped it with my teeth'
- b. *dá=k'úhki=ga* [*ko=ya=mí* *ts'í*]_{INSTR-PP}
 1.PFV.GEN=snap=1 with=DET.PL.PROX=1PSR tooth
 'I snapped it WITH MY TEETH.' {txt}

The only contexts where the preposition is dropped are relativization and interrogation (i.e., extraction constructions), which involve the pronominal forms in boldface in (46) below. The preposition is not allowed in relative constructions as the one in (46a), and it is optional (and only attested in elicitation of grammaticality judgements) in the interrogative construction in (46b). Adverbial inflection is obligatory in these examples, which is reminiscent of the obligatoriness of the Northern Zapotec ACs in similar contexts (see § 3.2.3).

(46) Acazolco Otomi

- a. *gen=k'a=dá* *k'úhki*
 COP=3SG.NV=1.PFV.GEN snap
 'That's what I snapped it with.'

- b. $\zeta(ko=)$ **tébe**=dá k'úhki?
 with=**what**=1.PFV.GEN snap
 'What did I snap it with?'

The situation illustrated in (46) above is different to what is observed with instrument RegPs in constructions with the adverbial inflection in Eastern Highlands Otomi, where the preposition is dropped (see examples [43b] and [44] above). However, both languages coincide in the lack of cross-reference to the instrument RegP in the verb. For example, a 2nd person reason participant in Acazolco Otomi can only be expressed via a PP as in (47a), and never cross-referenced by the person marker -k'i '2PO' in the verb, even if it is inflected with the general (i.e., instrumental) feature of adverbial inflection (in bold), as shown in the ungrammatical construction in (47b).

(47) Acazolco Otomi

- a. [*por=gen=k'e*]_{Reason}, *jan=ní=zongi=a*
 for=COP=2 because.of.that=**IPFV.GEN**=weep=ENCL
 'S/he's crying for you.' (Hernández-Green 2016: 369)
 (Lit. 'For (the one that is) you, because of that s/he's crying for.')
- b. **[por=gen=k'e]*_{Reason}, *jan=ní=zon-k'i=a*
 for=COP=2 because.of.that=**IPFV.GEN**=weep-**2PO**=ENCL
Intended meaning: 'S/he's crying for you.'

5.2 Zapotec morphological lookalikes

The Northern Zapotec APPLIED EXPERIENCER CONSTRUCTION (AEC) is an obligatory, non-alternating construction where an experiencer is encoded as subject. This construction involves the clitic =d 'APPL.EXP', and it is thus more comparable to constructions with subject undergoer nucleatives in Mapudungun and Yupik (Zúñiga and Kittilä 2019: 80) than to applicative constructions as defined in Zúñiga and Creissels (this volume). Therefore, the phrase "applied experiencer construction" is clearly a misnomer, as it would be more appropriately named "A-nucleativized experiencer construction". The AEC involves intransitive stems as *yàxhgh* 'be necessary', illustrated in (48a). An experiencer participant to whom something is necessary cannot be expressed in a PP, as is shown in the ungrammatical examples in (48b) and (48c).

(48) Northern Zapotec

- a. *dx-yàxhgh* *bárrét=nhà'*
 ICP-be.necessary wrench=DEF
 'A wrench is necessary.' {txt}

- b. *káteʔ dx-yàxhgh lhéʔè [nìchè=áʔ]_{PP}
 ADV ICP-be.necessary 2PL **PREP:REA=1SG.NOM**
 Intended: 'When you are necessary because of me.'
- c. *káteʔ dx-yàxhgh lhéʔè [pàr nhàdàʔ]_{PP}
 ADV ICP-be.necessary 2PL **for 1SG**
 Intended: 'When you are necessary to me.'

Like any other subject in Northern Zapotec, experiencers in the AEC can be crossreferenced by nominative clitics, as in (49a) below. Such nominative clitics are required as resumptive pronouns in the focus construction for subjects, as shown in (49b).

(49) Northern Zapotec

- a. kátèʔ dx-yàxhgh=d=áʔ lhéʔè
 ADV ICP-be.necessary=APPL:EXP=1SG.NOM 2PL
 'When I need you.' {txt}
- b. nhètòʔ=nhàʔ dx-yàxhgh=d=tòʔ mèdxoh=nhàʔ
1PL.EXCL=FOC ICP-be.necessary=APPL:EXP=1PL.EXCL money=DEF
 'We need the money.'

The last subject property observed in these experiencer participants is the covert subject (CS) construction, where the possessor of the (object) genitive NP is co-referent with the logic subject, and the latter is not overtly expressed in the canonical position for the subject. This is illustrated in the examples in (50). The experiencer is expressed in the subject position in (50a). In (50b) there is no NP in that position, as the logic subject is expressed within the object NP as possessor.

(50) Northern Zapotec

- a. dx-sʔ-yàxhgh=d [bénéʔ=káʔ]_S [mèdxoh=nhàʔ]_O
 ICP-PL.3s-be.necessary=APPL:EXP **person=PL:DIST** money=DEF
 'People need the money.'
- b. dx-sʔ-yàxhgh=d [_i]_{CS} [x-mèdxoh **bénéʔ_i=káʔ**]_O
 ICP-PL.3s-be.necessary=APPL:EXP PSR-money **person=PL:DIST**
 'People_i need their_i money.' (Lit. 'They_i need the people_i's money.)

Besides the promotion of an experiencer to subject, the AEC often implies a rearrangement in the mapping between semantic and grammatical roles (i.e., diathesis), represented in Figure 3. This rearrangement cannot happen, of course, with zero-valency predicates, such as meteorological verbs, illustrated in (51).

base S

AEC S_{EXP}

O

Figure 3: Diathesis alternation in Northern Zapotec's AEC.

(51) Northern Zapotec

wxê sh-yè' + nhì' = d = ò' nhà'

tomorrow ICP-dawn=APPL:EXP=2SG LOC

'You wake up there tomorrow.' (Lit. 'Tomorrow it dawns on you there.')

Southern Zapotec presents a case of applicative-reciprocal polysemy, that is cross-linguistically a rare type of co-expression pattern in the valency domain. The verb stem *kà'y* 'stain' is bivalent, as shown in (52a) with both the agent and the patient expressed with pronouns. The verb accepts the applicative suffix *-nié* 'APPL:COM', but with syntactic effects different than those expected, as can be seen in (52b). The first interpretation is a comitative event with an intransitive—not transitive—predicate, while the second interpretation is also intransitive but with a reciprocal interpretation.

(52) Southern Zapotec

a. *p-kà'y ná lù'*
COMPL-stain 1SG 2SG
'I stained you.'

b. *p-kà'y-nié ná lù'*
COMPL-stain-APPL:COM 1SG 2SG
'You and I got stained together.' /
'You and I stained each other.'
(Vásquez 2016: 166)

In the following paragraphs we present two alternating constructions of Northern Zapotec where a RegP is expressed as a direct NP without gaining the full range of object properties. These constructions are in the mid-section of the continuum proposed in Figure 2.

Instrument RegPs in Northern Zapotec (marked by *-é* 'APPL:INSTR' plus *=d*) with transitive stems do not have all the object properties canonical patients display. On the one hand, unlike canonical objects, they are optionally direct in the preverbal position (when focused), as shown in (53a), but obligatorily oblique when they occur *in situ*, as in (53b).

(53) Northern Zapotec

a. [(#l'hénh) *lhákó=nhà'*] *dx-o+yè'-é+d=é'=nh*
PREP:with bark=FOC ICP-cook-APPL:INSTR[TR]=3FORM.NOM=3INAN
'It's THE BARK they cook it with.'
(adapted from López Nicolás 2017: 217)

- b. *dx-o+yè'-é+d=é'=**nh*** [**(lénh)* ***lhákó=nhà'***]
 ICP-cook-APPL:INSTR[TR]=3FORM.NOM=3INAN PREP:with bark=DEF
 'They cook it with the bark.'
 (adapted from López Nicolás 2017: 216)

On the other hand, the instrument RegP can be cross-referenced by clitic pronouns in the verb, as canonical objects are, provided that the patient NP is also expressed in the sentence, as can be seen in (54).

- (54) Northern Zapotec
*w-dxíxé-é+d=é'=**[nh]***_{Instr} [*yính' yà'à=nhà'*]_{Pat}
 IRR-measure-APPL:INSTR[TR]=3FORM.NOM=3INAN chili green=DEF
 'She would weigh the green chili peppers with that (i.e., the scale).' {txt}

The morphosyntactic properties of instrument RegPs with transitive stems combine object encoding (i.e., object clitics in certain conditions) with oblique encoding (i.e., obligatory *in situ*). Instrument RegPs with intransitive predicates in Northern Zapotec have even less object properties. The instrumental BC with the preposition *lénh* 'with' is illustrated in (55a). In the alternate construction, the RegP can drop the preposition only when fronted, as is shown in (55b). The ungrammatical example in (55c) shows that the RegP cannot appear as a NP in the object position, even if the applicative morpheme =*d* is used.

- (55) Northern Zapotec
 a. *sh-dâ=chè'=á'* *lénh* *lénh*
 ICP-walk=ADV=1SG.NOM PREP:with 3INAN
 'I walk (with more confidence) with it (i.e., the walking cane).' {txt}
 b. (***lénh***) *mêdxoh=nhà'* *zhinh=d=tò'* *nhà'=tè*
PREP:with dinero=FOC IRR.arrive.thither=APPL:INSTR=1PL.EXCL LOC=INTS
 'With the money (i.e., by using it) we would get there.' {txt}
 c. **zhinh=d=tò'* ***mêdxoh=nhà'*** *nhà'=tè*
 IRR.arrive.thither=APPL:INSTR=1PL.EXCL **money**=DEF LOC=INTS
Intended meaning: 'We would get there with (i.e., by using) the money.'

Unlike instrument RegPs with transitives, RegPs with intransitives cannot be cross-referenced via clitic pronouns, as is shown in the ungrammatical example in (56) below.

- (56) Northern Zapotec
zhinh=d=tò'=nh*** *nhà'=tè*
 IRR.arrive.thither=APPL:INSTR=1PL.EXCL=3INAN LOC=INTS
Intended meaning: 'We would get there with (i.e., by using) that.'

To end this section, we present some cases where a morpheme cognate with an applicative seems to be lexicalized in certain predicates in Northern Zapotec. Consider the construction with a trivalent verb in (57a), root in boldface, where all three participants are overtly expressed. The applicative =*d* with this same verb root does not add an AppP, but it is a lexicalized stem formative to yield an idiomatic expression (together with the noun *dizhè* ‘word’) that describes the transference of information (rather than physical objects), illustrated in (57b).

(57) Northern Zapotec

- a. *g-òèʔ=báʔ=nhéʔ* *mêdxoh*
 IRR-give.to.3=3INFOR=3FORM.OBJT money
 ‘S/he’ll give him money.’
- b. *b-sʔ-òèʔ=d* *béné* *gólhé=nhàʔ* *nhàdàʔ* *dizhèʔ*
 COMPL-PL.3S-tell=APPL CLF.PRO:FORM old=DEF 1SG word
 ‘The elders told me that. {txt}’

Similarly, the enclitic =*d* ‘APPL:EXP’ is lexicalized in the causative verb shown in (58a). This verb form is the causative counterpart of the monovalent verb in (58b) via fortition of the initial consonant (*xh* [z] → *x* [ʃ]), so the enclitic here is redundant as a valency-changing strategy. For reference, the corresponding periphrastic causative construction is shown in (58c).

(58) Northern Zapotec

- a. *nhá* *b-xízh=d=òʔ* *Júan=nhàʔ*
 and COMPL-CAUS.laugh=APPL:EXP=2SG Juan=DEF
 ‘And you made Juan laugh.’
- b. *w-xhízh=báʔ* *chè* *Júanh*
 IRR-laugh=3INFOR GEN Juan
 ‘S/he’ll laugh at Juan.’
- c. *be-ônh=òʔ* [*gâ* *b-xhízh=báʔ*]_{CC}
 COMPL-make=2SG COMP COMPL-laugh=3INFOR
 ‘You made him/her laugh.’

The presence of the enclitic =*d* in the constructions in (57b) and (58a) above is not clearly related to valency alternations (applicative or otherwise). However, it could have semantic (rather than syntactic) motivations: the association of the enclitic with recipients (see Table 4 in § 4.3) and experiencers may have licensed the lexicalization observed in those examples.

5.3 Summary

Table 5 below summarizes the syntactic status of the added phrase in the constructions presented in the previous two sections. Otomi constructions are shaded; Zapotec constructions are unshaded. The ticks ✓ indicate where the relevant phrase is with respect to the continuum proposed in Figure 2.

Table 5: Syntactic status of the added phrase in Otomi and Zapotec applicative lookalikes.

	Syntactic status		
	S	Non-core	Oblique
Otomi causative	✓		
Northern Zapotec applied experiencer	✓		
Southern Zapotec reciprocal	✓		
Eastern Highlands Otomi adverbial inflection		✓	
Northern Zapotec instrumental (<i>tr.</i>)		✓	
Acazulco Otomi adverbial inflection			✓

By looking at the data in Table 5, it becomes evident that the continuum from Figure 2 is observable on different dimensions in the languages analyzed. On the one hand, the continuum can be found within a single language (i.e., Northern Zapotec), where different constructions give a different status to the added phrase. On the other hand, we can observe the continuum among languages in a family (i.e., Otomi languages), as different languages can give a different status to the phrase introduced by a cognate construction (i.e., adverbial inflection). Additionally, according to the object status the goal AppP seems to have had in Old Otomi, variation on the continuum may even be observable diachronically. By looking at two language families from the Otomanguean stock, we have presented a wide range of syntactic (and morphological) phenomena that will certainly contribute to our knowledge about ACs and related constructions in a cross-linguistic perspective.

6 General summary and final remarks

The present chapter has described ACs in Zapotec and Otomi, two language families from the Otomanguean stock (Central, Southern Mexico), which is one of the more diverse and widespread groups of languages indigenous to Mexico. The description has included morphological, syntactic, and semantic aspects in the Otomi and Zapotec families, as well as morphological lookalikes.

Morphology

- Applicative morphology in Northern Zapotec and Otomi displays a great variety of formal strategies, ranging from cliticization to affixation and stem alternations. Affixation is found in other Otomanguean families; stem alternations are rarer, as they have been attested in Otomi (and Mazahua, its sister language) and Chinantec. All these applicative exponents are found to be lexicalized in some verbs in both Northern Zapotec and Otomi, especially in the latter. Adverbial inflection, apparently an AC in Old Otomi, displays cumulative exponence of applicative marking together with grammatical person.
- Northern Zapotec applicative morphemes do not present any allomorphy, phonological or otherwise. The Otomi benefactive applicative, in contrast, is often marked by stem alternations that may or may not involve stem-medial or stem-final glottal segments /h/ or /ʔ/; in some cases, verb stems in ACs are not formally distinguished from those in BCs (i.e., they are labile).
- Old Otomi goal applicative seems to have had a reduced inflectional paradigm in comparison with non-applicative verb forms: only three tense distinctions (out of four in the indicative for verbs without the applicative), and no mood distinctions. Northern Zapotec applicatives, in contrast, present no differences in inflectional paradigm structure with respect to verb forms in BCs.
- The morphological variation of ACs within the Otomanguean stock is remarkable from a cross-linguistic perspective, as it covers a wide range of phenomena related to the concatenative/non-concatenative spectrum, allomorphy, and paradigm structure.

Syntax

- The AppPs in all the applicative constructions described in this chapter have a grammatical status of object, both in Zapotec and in Otomi. Otomi languages have person suffixes as the only reliable morphosyntactic (primary) object test, while Northern Zapotec has both coding (i.e., non-oblique phrase, object marker on the verb, position with respect to subject) and behavior (i.e., fronting without *in situ* resumptive pronoun) tests of objecthood.
- Both the Otomi and Northern Zapotec (recipient/)benefactive ACs can be observed in both bivalent and trivalent verbs but they are incompatible with monovalent verbs; Northern Zapotec comitative AC, in contrast, has no such restriction. As for diathesis alternation operations, the Otomi benefactive AC shows no restrictions of combination, while Northern Zapotec ACs combine with the causative but not with the reciprocal-reflexive construction.
- Beneficiary AppPs in Otomi are indexed differently from recipient NPs in basic ditransitives: these recipient NPs are obligatorily zero-indexed (with two exceptions where the zero is ungrammatical), but beneficiary AppPs are obligatorily indexed with *-bi* '3iŋ' (with three exceptions where the suffix is optional).

- Although Northern Zapotec ACs are optional, they are so only in some unmarked clause types: applicativization of the peripheral participant is obligatory in constructions that involve extraction (focalization, interrogation, relativization).

Semantics

- The Northern Zapotec comitative marker is a dedicated morpheme for comitative AppPs; Old Otomi goal applicative seems to be a dedicated morphological device as well. Otomi and Zapotec (recipient/benefactive) ACs are also dedicated to “dative-like” participants, a label that encompasses a number of semantically and/or typologically related semantic roles such as recipient, maleficiary, source, beneficiary, and causee/manipulee.
- Zapotec ACs are optional. In these constructions, the AppP in the AC is an oblique phrase in the corresponding BC. In contrast, the Otomi benefactive applicative is obligatory, so there is no BC to compare the status of the phrase in it to the corresponding AppP in the AC.
- In Otomi, the benefactive AC is the only strategy for expressing dative-like peripheral participants. Corresponding BCs do not exist in the language, either by means of an oblique phrase (there is no preposition for dative-like PPs) or by means of the codification of the dative-like participant as a possessor (these constructions are rejected by speakers, and an AC is always preferred).
- ACs occasionally have idiosyncratic semantic effects with respect to the BC. For instance, the comitative may have “affected concomitant” interpretations in Southern Zapotec.

Lookalikes

- Non-applicative constructions marked with applicative morphology (i.e., morphological lookalikes in Section 5) in both Zapotec and Otomi are arranged along a promotion-registration continuum, based on how many core morphosyntactic properties (if any) non-core arguments acquire in such constructions. On the promotion end of the continuum are, on the one hand, Zapotec Applied Experiencer Construction, which is a subject undergoer nucleative construction (Zúñiga and Kittilä 2019: 80) where an experiencer is coded as subject, and, on the other hand, Otomi causatives that have a (however lexicalized) reflex of Proto-Otomi-Mazahua *-H. On the registration end we have constructions where the adjunct phrase is registered in the verb without acquiring an object status. Constructions in the middle of the continuum display only some object properties acquired by the registered phrase. The promotion-registration continuum can be observed not only within a single language (i.e., Northern Zapotec) but also among languages in the same family (i.e., Otomi languages), which is worth highlighting from a cross-linguistic perspective.
- All non-promotional morphological lookalike constructions referred to in the previous bullet point have syntactic properties similar to those of ACs that have

nothing to do with object codification. The obligatoriness of Zapotec ACs in extraction constructions (i.e., interrogation, relativization, focalization) is also observed among the non-promotional constructions from Section 5. Consider the following examples from both Otomi and Zapotec interrogation and focalization in (59a) and (59b), respectively.

- (59) a. *ʔtébe=dí* 'uingi=a?
 what=2.IRR.GEN feed=ENCL
 'What are you going to feed them with?' {txt}
- b. [*lhénh lhákó=nhà*]_{Instr} *dx-o+yè'-é+d=é'=nh*
 PREP:with bark=FOC ICP-cook-APPL:INSTR[TR]=3FORM.NOM=OBJ3INAN
 'It's THE BARK they cook it with.'
 (adapted from López Nicolás 2017: 217)

The obligatory registration of instrument phrases in extraction constructions like those in (59) has led some authors to group registration and applicative constructions together, often giving registration the label "registration applicative" (Norman 1978; Zavala 2000: 859–860, among others).

Abbreviations

ADV	adverbial (registration)/adverb
AFF	affective
AN	animal (pronoun)
APPL	applicative
BEN	benefactive
CAUS	causative
CL	inflectional clitic
CLF.PRO	pronominal classifier
COM	comitative
COMP	complementizer
COMPL	completive
CONTR	contrastive
COP	copula
DEF	definite
DET	determiner
DIM	diminutive
DIST	distal
DU	dual
ENCL	enclitic
EVID	evidential
EXCL	exclusive
EXP	experiencer

FOC	focus
FORM	formal
FUT	future
FV	final vowel
GEN	general
HAB	habitual
ICP	incompletive
IMM	immediative
IMPRS	impersonal
INAN	inanimate
INCL	inclusive
INFOR	informal
INSTR	instrumental
INTS	intensifier
IO	indirect object
IPFV	imperfective
IRR	irrealis
LOC	locative
MID	middle
NEG	negative
NMLZ	nominalizer
NOM	nominative
NV	non-visible
OBJT	object(ive)
PF	possessed form
PFV	perfective
PL	plural
PSR	possessor
PO	primary object
POT	potential
PP	prepositional phrase
PREP	preposition
PRF	perfect
PRS	present
PROG	progressive
PRO.REL	relative pronoun
PROX	proximal
PST	past
QUOT	quotative
R	realis
RC	relative clause
REA	reason
RN	relational noun
S	subject
SF	sentence focus
SG	singular
SS	secondary stem
STA	stative
TR	transitive

txt example from text
VEN venitive

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21 The polyfunctional applicative *-id in Bantu languages

Abstract: This chapter is about a verbal derivational suffix reconstructed as *-id to Proto-Bantu and labeled applicative. Reflexes of this suffix are found in a great number of present-day Bantu languages. I show that the Bantu applicative suffix is highly polyfunctional. Applicative morphology is often the only means to introduce any semantic role other than Agent, Patient, Instrument and Possessor into a main clause. Obligatoriness vs. optionality of applicativization to express any given semantic role depends on the language, the lexical meaning of the verb root and the communicative context. Syntactically, the applied phrase can be, among others, a direct object or an oblique. This means that increased syntactic valence is not a defining feature of Bantu applicative constructions. This chapter also highlights that suffixes formally identical to *-id and behaving morphophonologically as reflexes of *-id display several non-syntactic functions across the Bantu domain, such as adding aspectual nuances to the meaning of the verb root (e.g., repetitiveness, thoroughness, excess, persistence, intensity), placing an applied phrase with a Location(-related) semantic role under narrow constituent focus, and widening/shifting the scope of a Location(-related) applied phrase with respect to subject and object arguments.

1 Introduction

The Bantu languages branch off from one of the lowest nodes of the Benue-Congo branch of the Niger-Congo phylum (Greenberg 1963; Mukarovsky 1976–1977; Williamson and Blench 2000). The fact that they are a relatively recent Niger-Congo offshoot contrasts sharply with their remarkable geographic spread throughout Sub-Saharan Africa (Bostoen 2018). Bantu languages span from southwest Cameroon in the northwest all the way to southern Somalia in the northeast and until the southernmost tip of the continent (Bostoen and Van de Velde 2019: 3–4). As such, they are the largest language family in Africa by number of speakers and geographic extension. Estimates about their exact number vary anywhere between more than four hundred to almost seven hundred, one reason being the arbitrary demarcation between dialects and languages. Due to their considerable number, there are several geographically-based referential (i.e. non-genetic) classifications of Bantu languages. The most widely used is the one by Guthrie (1971), which divides Bantu languages into fifteen zones each labelled with a letter from A to S, where A is used for the languages currently located around the homeland area in the borderland between Nigeria and Cameroon and S for the southernmost languages of southern Africa. Within each zone, sets of ten after a letter refer to a group

of languages, e.g., B70, B80 etc., whereas a number following a decimal point refers to specific varieties within a group, e.g., the Bantu language Ding is assigned the alphanumeric code B86 within the B80 referential group, see Hammarström (2019), Maho (2009). The Bantu languages of Guthrie's referential classification are known as Narrow Bantu languages. This term is used in contrast to Wide Bantu, which includes both Bantu and Bantoid languages, that is, about 150 varieties around the Bantu homeland area which are genetically related to Bantu but are conventionally not considered to be part of "Narrow Bantu" (Bostoen and Van de Velde 2019; Williamson and Blench 2000: 8–9).¹

To date, there is no internal subclassification of Bantu languages based on the Comparative Method (see however the tentative historical classification of Nurse and Philippson 2003 based on shared innovations of non-lexical features). Bantu scholars often make a non-genetic and approximate division between the northwestern Bantu languages spoken in Cameroon, Gabon, Congo and parts of the Democratic Republic of the Congo, from the rest of Bantu languages spoken to the east, southeast and southwest (see, e.g., Schadeberg 2003b). Geographically speaking, northwestern Bantu is ill-defined. Most authors include languages of zones A, B and C under the geographic label "northwestern", while others also add small adjacent pockets of zones D and H. This latter grouping is known as "Forest Bantu" (Grégoire 2003; Nurse and Philippson 2003: 177) and is often used interchangeably with northwestern Bantu. The geographically less widespread northwestern languages display a much higher linguistic diversity compared to those spoken further east and south (Bostoen 2018). Most lexicostatistical and phylogenetic classifications (e.g., Bastin, Coupez, and Mann 1999; Coupez, Evrard, and Vansina 1975; Grollemund et al. 2015; Heine, Hoff, and Voßen 1977; Vansina 1995) point to an initial split between some of the northwestern languages (especially zone A and parts of zone B) and the rest, while there is variability in the internal subgroupings of the rest. Given the number of languages, the general(izing) claims made in this chapter should not be taken at face value, but rather understood as tendencies for which exceptions can always be found.

In the remainder of this section, I discuss morphosyntactic features which are of immediate relevance to the discussion of applicative constructions (ACs). Bantu nouns are not marked for case, though tonal case marking has been claimed to exist in some languages, see, e.g., Schadeberg (1986), Blanchon (1999). As is typical of Niger-Congo (Hyman 2014), Bantu languages feature a system of nominal classification where nouns belong to different, partially semantically motivated classes. Nouns tend to take a distinct noun class prefix in the singular and the plural and trigger agreement on other constituents of the NP as well as the verb, as shown in (1) and (2). In both cases, the head noun *ò-mpûy* 'pangolin' (singular CL3 *ò-*) in (1) and *è-mpûy* 'pangolins' (plural CL4 *è-*) in (2) triggers class agreement on all modifiers of the NP as well as on the verb through

¹ The term *Bantoid* is also used to name the node within the Benue-Congo branch of Niger-Congo to which both Narrow Bantu and Bantoid languages belong.

a class-determined subject index. In Bantu, a third person referent can belong to any of the noun classes existing in a particular language. Nouns denoting humans usually belong to class pairing 1/2.

- (1) Ngwi B861 (Pacchiarotti and Bostoen 2021: 28)

òmpúy òmɔ̃ɔ̃ ònɛ̃n òídzá:m

ò-mpúy ò-mɔ̃ɔ̃ ò-nɛ̃n ó-tí-dzâm^H

CL3-pangolin AP3-one AP3-big 3.SUBJ-PRF-disappear

‘One big pangolin has disappeared.’

- (2) Ngwi B861 (Pacchiarotti and Bostoen 2021: 28)

èmpúy ènɛ̃n èní èídzá:m

è-mpúy è-nɛ̃n è-ní é-tí-dzâm^H

CL4-pangolin AP4-big AP4-that 4.SUBJ-PRF-disappear

‘Those big pangolins have disappeared.’

The noun class system reconstructed for Proto-Bantu (PB) featured at least three locative noun classes whose semantic content varies depending on the author of the reconstruction. These are PB CL16 *pà- ‘at, on’, CL17 *kù- ‘outside’ and CL18 *mù- ‘in’ (Meinhof and van Warmelo 1932: 40). In many modern Bantu languages, nouns already carrying a noun class prefix may additionally be prefixed with one of the historically locative noun class prefixes. Some Bantu languages developed a locative suffix reconstructable to some node as *-inɪ (Grégoire 1975: 187). These two strategies can be combined as shown in (3), where the CL10 noun ‘gardens’ takes a historical CL16 locative prefix *va-* (< PB CL16 *pà-) and a locative suffix *-ni* (< *-inɪ).

- (3) Lomwe P32 (Güldemann 1999b: 52)

va-i-macha-ni

CL16-CL10-garden-LOC

‘in the vegetable/fruit gardens’

In this chapter, I use the term LOCATIVE PHRASE as a general cover term for a phrase with locative semantics which displays morphological material Bantu nouns must take when they function as semantic adjuncts specifying the location of an event, as in (3), without specifying the syntactic category (NP, PP, or something in between) to which the locative phrase belongs (see discussion below in this section).

In terms of morphological verb profile, Bantu languages spoken to the (south)east and southwest of the northwestern area uniformly have morphologically complex verb forms hosting numerous bound morphemes with a wide range of grammatical functions such as participant cross-reference, Tense Aspect Mood and Polarity (TAMP) marking, voice and derivation (causative, applicative, passive, reflexive, reciprocal, middle, positional, separative, stative, etc.). The languages in the northwestern area tend to have

a much lower ratio of morphemes per word. These different morphological profiles sometimes coexist in one and the same phylogenetic branch. This is illustrated in (4) and (5) with two languages belonging to the West-Coastal Bantu branch, both spoken in the Democratic Republic of the Congo (DRC).

- (4) Ntandu H16b (Daeleman 1966: 253)
kabatátúsádísáánga ko
ka-ba-tá-tú-sál-ís-áng-a *ko*
 NEG-2.SUBJ-PRS.PROG-1PL.OBJ-WORK-CAUS-IPFV-FV NEG
 ‘They are not helping us.’
- (5) Nzadi B865 (Crane et al. 2011: 170)
mĩ ke pá fũfũ kó yá bɔ
 1SG NEG.PST give fufu to 2SG NEG
 ‘I didn’t give fufu to you.’

The verbal morphological template reconstructed for PB by Meeussen (1967: 108–111) undoubtedly reflects the structure found in present-day languages such as Ntandu in (4). A version of the PB verbal template adapted by Güldemann (1999a: 546) is given in Figure 1, where the row immediately after the numbered verb slots indicates how these are traditionally labelled in Bantu studies.² The reconstruction of the template in Figure 1 to PB stage has been subject to a heated debate in recent years. One side of the debate argues that Figure 1 actually represents the proto verbal form of a much later node in the Bantu family tree (see, e.g., Güldemann 2011, 2022), and that PB would have looked much more like Nzadi in (5) than Ntandu in (4).

–4	–3	–2	–1	0	+1	+2	+3
preinitial	initial	postinitial	preradical	radical	prefinal	final	postfinal
TAMP	SUBJ	TAMP	OBJ	root	derivation/TAM	final vowel	clause type/OBJ/P

Figure 1: Proto-Bantu verbal template adapted from Güldemann (1999a: 546).

While subject indexes (SUBJ) are usually present on the verb form in all TAMP finite constructions except the imperative, the presence of an object index (OBJ) and its co-occurrence with the lexical object NP it coreferences is subject to considerable variation (for a typology see Beaudoin-Lietz, Nurse, and Rose 2004; on the reconstruction of object

² In his original PB verbal template Meeussen (1967: 108–111) distinguishes two slots between the radical and the final, i.e., a suffixal slot for verbal derivation (where the applicative belongs) and a prefinal slot for a specific inflectional suffix. Güldemann (1999a) conflates these two suffixal slots under the label “prefinal” as he does with several distinct prefixal slots under the label “preinitial”.

indexation in PB see Wald 2022). The applicative as well as numerous other PB derivational suffixes (Schadeberg and Bostoen 2019; Schadeberg 2003a) appear in position +1. As we will see in Section 2, northwestern languages often display verbal phonotactic maximality constraints which affect the segmental realization of the suffixal portion of the template in Figure 1.

In terms of main clause syntax, the vast majority of Bantu languages displays an SVOX word order (where X stands for a syntactic oblique) when clause constituents are lexical NPs (Creissels 2000: 250). The immediately postverbal position is often a new information focus position for object NPs (Buell, Riedel, and Van der Wal 2011), but in some branches it is rather immediately preverbal (Bostoen and Mundeke 2012; Koni Muluwa and Bostoen 2014). Changes to these word orders, often in combination with morphological and suprasegmental strategies, correlate with changes in information structure (Bearth 2003: 130; Downing and Hyman 2016). All known Bantu languages display a robust nominative-accusative alignment system. Three overt properties providing evidence for this claim are: (i) the existence of two (supra)segmentally distinct sets of bound pronominal forms used for participant cross-referencing, one for the S/A category and one for P;³ (ii) verbs usually must index the S/A category in most TAMP constructions but not P (see above); and (iii) while the S/A category appears preverbally, P occurs postverbally. Zero-anaphora for anaphorically retrievable object arguments of syntactically transitive verb stems is very common; on the other hand, subject arguments usually do not undergo zero anaphora. While the grammatical relation of subject is easily identifiable as the target of specific morphosyntactic operations, the grammatical relation of object is less so. Typical Bantu objecthood diagnostics include, among others, adjacency to the verb, ability to be cross-referenced on the verb, and subjectivization by means of a passive construction (Hyman and Duranti 1982). In fact, the by now well-known distinction between symmetrical and asymmetrical object-type languages, originating in data from the eastern Bantu languages Chaga and Chewa within the Lexical Functional Grammar framework (e.g., Alsina and Mchombo 1990; Bresnan and Moshi 1990), was established on the basis of the behavior that multiple postverbal object NPs show with respect to the aforementioned diagnostics. Nevertheless, their reliability is often disputed due to the arbitrariness of their choice, their language-specific partial applicability (Rugemalira 1991), the high degree of morphosyntactic variation they display (especially object indexation on the verb), and the intraspeaker variation in answers obtained in elicitation contexts (Pacchiarotti 2020: 59–66 for an overview).

An idiosyncrasy of Bantu languages immediately relevant for the discussion of ACs is that the boundaries between syntactic object arguments and adjuncts with locative semantics are far from discrete (Creissels 1998; Kuperus and Mpunga wa Ilunga 1990

³ I use S, A, P following Dixon (1994), among others. A stands for the subject of a transitive verb, P for the object of a transitive verb and S for the subject of an intransitive verb.

and references therein; Schadeberg 1995). Bantu locative phrases can be either NPs, PPs, or entities in between these two syntactic categories. This is because present-day Bantu languages either preserved or restructured the original system where locatives were part of the noun class system (see discussion above). Eastern Bantu languages such as Chewa N31 by and large retained the original system. In these languages locative phrases tend to behave morphosyntactically as nouns and are thus likely to be syntactic arguments, e.g., they trigger agreement within the NP just like non-locative nouns, and they can bear the grammatical relations of subject and object to their verb, as shown for instance by subject agreement and preverbal position of the locative phrase *ku San José* in (6).

- (6) Chewa N31 (Bresnan 1994: 111)
ku San José kú-ma-ndi-sangalâts-a
 CL17 S.J. 17.SUBJ-PRS.HAB-1SG.OBJ-please-FV
 ‘It pleases me in San José / (Being in) San José pleases me.’

Some northwestern and southern Bantu languages have developed locative prepositions either from PB locative noun classes or other sources such as locative demonstratives (Grégoire 1975: 106–134). Unlike locative-marked NPs, prepositions trigger neither agreement on other constituents of the noun phrase, nor can they bear the grammatical relation of subject and/or object to their verb. This is illustrated with the Londo data in (7) where *ò* derives historically from PB locative class 17 **kò* but is now a phonologically independent element which does not trigger agreement in the following connective construction: the morpheme *wá* linking the CL14 noun ‘face’ with the CL7 noun ‘hole’ agrees with the inherent class of the first linear noun (CL14).

- (7) Londo A11 (Kuperus 1985: 182, glosses uniformized)
ì-sérì í-mòkòmé ò bò-só (w-á) è-yùkù
 CL19-antelope 19.SUBJ-stopped PREP CL14-face CL14-CONN CL7-hole
 ‘The small antelope stopped in front of the hole.’

Yet other languages show a fluctuating situation where, depending on the construction, locative phrases display morphosyntactic behavior which makes them less like an NP and more like a PP, see Kuperus and Mpunga wa Ilunga (1990) for a detailed discussion of this situation in Luba-Kasai L31a (see also Section 3). Because NPs are more likely to be syntactic arguments than PPs, the morphosyntactic nature of Bantu locative phrases has direct implications for claims related to valence, especially because, as we will see in Section 3, applicative morphology can/must be used to introduce object NPs but also locative phrases on a language-specific, root-by-root basis.

Because eastern Bantu data have dominated applicative studies in different theoretical syntactic frameworks (cf. *supra*) and because this handbook features a case

study on the eastern Bantu language Tswana (see Creissels, this volume), this chapter tries to include as many northwestern Bantu data as possible.

2 Morphology

The only verbal derivational suffix reconstructed in PB with the label applicative is *-id (Meeussen 1967: 110).⁴ Its reflexes in present-day Bantu languages are quite uniform, minor variations being conditioned by language-specific morphophonology and phonotactics. For instance, in Lengola D12, *-id has three allomorphs according to Stappers (1971: 265): -i when the preceding morpheme ends in /l/ (8a), -li when it ends in a vowel (8b), and -il in all other contexts (8c).

- (8) Lengola D12 (Stappers 1971: 265)
- a. *i-yoβul-a* ‘to play drum’ *i-yoβul-i-a* ‘to play drum-APPL’
 - b. *i-tú-a* ‘to sprout’ *i-tú-li-a* ‘to sprout-APPL’
 - c. *i-φam-a* ‘to shout’ *i-φam-il-a* ‘to shout-APPL’

As is common with reflexes of PB derivational suffixes having a near-close vowel (*ɪ or *ʊ) and/or ending in *d, reflexes of PB *-id often undergo root-conditioned vowel and/or nasal harmony. The Sikongo data in (9) show that the language’s direct reflex of *-id, i.e. -il, is subject to vowel harmony whenever the root contains /e/ or /o/, compare (9c–d) with (9a–b) and nasal harmony whenever the root contains a nasal segment, see (9f–g). Note that vowel and nasal harmony can also co-occur, see (9e).

- (9) Sikongo H16a (Ndonga Mfuwa 1995: 315, 331)
- a. *kús* ‘smear’ *kús-il* ‘smear-APPL’
 - b. *tál* ‘look’ *tál-il* ‘look-APPL’
 - c. *vóv* ‘talk’ *vóv-èl* ‘talk-APPL’
 - d. *vét* ‘throw’ *vét-èl* ‘throw-APPL’
 - e. *nón* ‘gather’ *nón-èn* ‘gather-APPL’
 - f. *kún* ‘plant’ *kún-in* ‘plant-APPL’
 - g. *símb* ‘touch’ *símb-in* ‘touch-APPL’

⁴ Nevertheless, other PB verbal derivational suffixes might develop applicative functions overtime. For instance, in some zone A languages reflexes of PB *-an ‘associative/reciprocal’ commonly introduce Instrument and Comitative applied phrases (Schadeberg 1980). Similarly, the Great Lakes Bantu languages of zone J (e.g., Rwanda, Ganda, Haya, etc.) use reflexes of PB *-ici ‘causative’ to introduce Instrument applied phrases into a main clause (see, e.g., Kimenyi 1988: 367–368 for Rwanda).

In some Bantu languages, applicative derivation with monosyllabic verb roots can trigger suffix doubling and/or vowel lengthening, as in (10), usually to satisfy minimal length constraints (e.g. disyllabic or bimoraic) on verb stems (see Hyman and Mtenje 1999 and references therein).

- (10) Lunda L52 (Kawasha 2003: 35)
d-á ‘eat’ *d-íl-a* ‘eat at/for/on, enjoy’
nw-á ‘drink’ *nw-ín-a* ‘drink for/at’

Due to the phenomenon known as “imbrication” in Bantu studies (Bastin 1983), reflexes of applicative *-*rd* can be phonologically less transparent than those presented so far. Imbrication is a process whereby certain -(V)CV verbal suffixes conflate or a suffix gets infixated into a verb root. This morpheme fusion is usually accompanied by the loss of the consonant of the infixated CV suffix and the insertion of its vowel portion in front of the final root consonant. This process commonly occurs with perfect *-*ide*, applicative *-*rd* and causative *-*ici*. Typical instances of imbrication are in (11).

- (11) Luba-Kasai L31a (Lukusa 1993: 58)
- | Underlying form | Surface realization |
|--|--------------------------------------|
| <i>mòñ-íl</i> ‘see-APPL’ | <i>mwè:n</i> |
| <i>tabal-íl</i> ‘open eyes-APPL’ | <i>tabeel</i> |
| <i>tabeel-íʃ</i> ‘open eyes.APPL-CAUS’ | <i>tàbeʒ</i> ‘cause too see clearly’ |

More extreme, less typical examples of imbrication occur in the northwestern area (especially zones A, B, and C), mainly due to maximality constraints on verb stems, such as maximum number of syllables and restrictions on the positional distribution of consonants in verb roots according to place/manner of articulation (Ellington 1977; Hyman 2008, 2010).⁵ An instance of such complex (morpho)phonological reflexes of *-*rd*, reminiscent of classical imbrication, is illustrated in (12) with data from Ding B86. Depending on the quality (and length) of the root vowel, the applicative -*il* (as well as any other derivational or inflectional suffix featuring /i/) can trigger umlaut – with or without concomitant diphthongization – and/or lengthening (for a discussion of these phenomena in the area where Ding is spoken see Bostoen and Koni Muluwa 2014; Koni Muluwa and Bostoen 2012). The consonant portion of -*il* is generally realized when the root has a CV or CVV shape, but see *pá* vs. *kú* in (12c).

⁵ Besides loss and imbricated reflexes, phonological mergers among historically distinct verbal derivational suffixes in the northwestern area have created a situation where there is no longer a one-to-one relationship between form and meaning, e.g. a suffix with a given phonological shape can express several semantically distinct, unrelated meanings, or one single meaning can be expressed by three or four formally distinct derivational morphemes (Ellington 1975). Although particularly common in the northwest, mergers causing homophony are also attested elsewhere, see, e.g., Guérois and Bostoen (2018).

(12) Ding B86 (Ebalantshim 1980)

Root shape	Underlying form	Surface realization
a. C(G)V(:)C	<i>túβ-il</i> ‘drill-APPL’	<i>týýβ</i>
	<i>lòm</i> ‘ask-APPL’	<i>lèèòm</i>
	<i>lám</i> ‘prepare-APPL’	<i>léàm</i>
	<i>sààl</i> ‘weed-APPL’	<i>séél ~ syél</i>
	<i>bíl</i> ‘call-APPL’	<i>bíl</i>
b. CV:	<i>kyél</i> ‘cut-APPL’	<i>kyèèl</i>
	<i>píí</i> ‘throw-APPL’	<i>pííl</i>
	<i>lòò</i> ‘bewitch-APPL’	<i>lòòl</i>
c. CV	<i>pá</i> ‘give-APPL’	<i>péà ~ pé</i>
	<i>kú</i> ‘die-APPL’	<i>kwél</i>

An even more extreme case of imbricated-like reflexes of *-ɪd is found in Tiene B81. In this language C₁VC₂VC₃V is the longest possible verb form on which the following constraints apply: C₂ must be coronal, C₃ must be non-coronal, and C₂ and C₃ must agree in nasality (Hyman 2010: 153 see also Ellington 1977: 111–113 for derivational rules).

(13) Tiene B81 (Ellington 1977; Hyman 2010)

	Underlying form	Surface realization
a.	<i>yal-el-a</i> ‘spread-APPL’	<i>yaal-a</i>
b.	<i>són-el-ɔ</i> ‘write-APPL’	<i>sóɔn-ɔ</i>
c.	<i>yók-el-a</i> ‘listen-APPL’	<i>yólek-ε</i>
d.	<i>yɔb-el-ɔ</i> ‘bathe-APPL’	<i>yɔlɔb-ɔ</i>
e.	<i>lɔŋ-el-ɔ</i> ‘load-APPL’	<i>lɔnɔŋ-ɔ</i>
f.	<i>dum-el-a</i> ‘run fast-APPL’	<i>dunem-ε</i>
g.	<i>t-el-a</i> ‘throw-APPL’	<i>téel-ε</i>
h.	<i>dí-el-a</i> ‘wrap-APPL’	<i>díil-ε</i>

In (13a–b), the Tiene applicative suffix *-el* surfaces as vowel lengthening to compensate for the fact that C₃, i.e. the /l/ of *-el* cannot be realized because it is coronal. In (13c–f), C₂ and C₃ metathesize because C₃ must be a non-coronal consonant. In (13e–f), the /l/ of the applicative becomes /n/ because C₂ and C₃ must agree in nasality. Additionally, in (13d–e), the vowel portion of applicative *-el* harmonizes to the root vowel ɔ. Finally, verb stems without a C₂ such in (13g–h) show a more phonologically transparent manifestation of *-el* (still subject to coalescence with the root vowel).

In Bantu languages without maximality constraints on verb stem length, there are usually no restrictions on the stacking of verbal derivational suffixes, as shown in (14).

- (14) Yao P21 (Hyman 2004: 70)
taam-uk-ul-igw-aasy-an-il-a
 sit-IMPS-SEP.TR-PASS-CAUS-REC-APPL-FV
 ‘cause each other to be unseated for/at’

On the other hand, in languages with maximality constraints on verb stem length, an applicativized causative stem (15b) might be formally identical to a causativized stem (15a). Note that while in (15a) the verb optionally cross-references the CL1 object NP *mwàn*, in (15b) the applied 1SG Beneficiary object gets priority over the base Patient object.

- (15) Ding B86 (Kamtsha variety) (Sidonie Mayuma Mangwem and Donatien Musimar Aleben p.c.)⁶
- | | | | | |
|----|--------------------------------|--------------|----|---------------------------------------|
| a. | <i>mùýǎ:y mwàn!</i> | | b. | <i>ngyǎ:y mwàn!</i> |
| | <i>mù-yǒb-iy</i> | <i>mù-àn</i> | | <i>N-yǒb-iy-il</i> |
| | 1SG.OBJ-wash.INTR-CAUS | CL1-child | | 1SG.OBJ-wash.INTR-CAUS-APPL CL1-child |
| | ‘Make the child wash himself!’ | | | ‘Make the child wash himself for me!’ |

Hyman (2003) reconstructs a default PB and Pan-Bantu suffix templatic ordering Causative-Applicative-Reciprocal-Passive (CARP). While in some languages this templatic order is strictly fixed, in others compositionality and/or semantic scope constraints allow for some combinations of suffixes to override the CARP template. For instance, in the Chewa reciprocalized causative in (16a), the causative suffix precedes the reciprocal, while in the causativized reciprocal in (16b), the reciprocal precedes the causative and thus violates the CARP template in favor of semantic scope.

- (16) Chewa N31 (adapted from Hyman and Mchombo 1992: 350)
- | | | | |
|----|---|----|--|
| a. | <i>mang-its-an</i> | b. | <i>mang-an-its</i> |
| | tie-CAUS-REC | | tie-REC-CAUS |
| | [X _i cause [each other _i to tie Y]] | | [X cause to [Y _i tie each other _i]] |

On the other hand, as shown in (17b), in the same language the applicative suffix can never precede the causative. The sequence root-CAUS-APPL in (17a) can be interpreted either as an applicativized causative, i.e. [[X cause Y to tie Z] for/with/at], or as a causativized applicative, i.e. [X cause [Y tie Z for/with/at]] (see Good 2005 and Hyman 2003 for further discussion).⁷

⁶ The Ding data not taken from Ebalantshim (1980) come from own fieldwork with two native speakers of the eastern variety of Ding B86 (a.k.a. Ding Kamtsha), Mrs. Sidonie Mayuma Mangwem and Mr. Donatien Musimar Aleben.

⁷ In his survey of morphological exponency of applicativization and causativization in Bantu, Good (2005: 19, 35–40) reports very few languages which apparently allow applicative-causative (AC) order

(17) Chewa N31 (adapted from Hyman and Mchombo 1992: 352)

- | | |
|---|---|
| a. <i>mang-its-ir</i>
tie-CAUS-APPL
[[X cause Y to tie Z] for/with/at]
[X cause [Y tie Z for/with/at]] | b. <i>*mang-ir-its</i>
tie-APPL-CAUS
*(intended meaning: [X cause [Y tie Z for/with/at]]) |
|---|---|

The combination of applicative and reflexive, which unlike other verbal derivation occurs in the same slot as object indexes in Bantu, is often reported to develop non-compositional meanings, special semantic nuances or discourse functions. For instance, the combination of the applicative and reflexive in Rwanda (18) conveys the expectations of the speaker with respect to the event they are narrating (Trithart 1983: 184–187).

(18) Rwanda JD61 (Kimenyi 1980: 57-58 cited in Trithart 1983: 186)

- u-mu-gabo* *a-r-ĩ-ryaam-i-ye*
AUG-CL1-man 1.SUBJ-PRS-REFL-sleep-APPL-PRF
‘The man is asleep.’ (when expected to be doing something else)⁸

In general, applicativized verbs show the same inflectional paradigms as those of their corresponding underived roots, as illustrated with North Boma B82 in (19).⁹ Note that the imbricated realization of applicative *-il* in North Boma also encompasses the harmonization of a final vowel /a/ to /ε/. Hence, whenever a particular TAMP construction features a final *-a* as in the present and past habitual in (19a–d), the final vowel of the applicativized stem is *-ε*. However, final vowels such as *-i* in the negative remote past “override” the expected final *-ε* of the applicativized stem.

alongside causative-applicative. However, in these languages, AC order is not always fully productive and/or semantically compositional.

⁸ In Rwanda as in many other Bantu languages, the noun class prefix on the head noun may be preceded by another prefix, traditionally known as augment or pre-prefix (De Blois 1970; Meeussen 1969: 96–99), see *u-* in (18). In languages such as Rwanda, nouns carry both the noun class prefix and the augment by “default” (Van de Velde 2019: 249).

⁹ As will be shown in Section 5, applicative morphology in Bantu languages can be used to focalize Location phrases. In some (especially) eastern Bantu languages, the so-called conjoint verb form is used, among others, when a given clause constituent is the target of narrow focus, while the so-called disjoint verb form is used when no specific element is focused within the clause (van der Wal and Hyman 2017). The dynamics (and possible co-occurrence restrictions) of the conjoint/disjoint forms in combination with the focalizing function of the applicative are largely unknown, but see Misago et al. (forthcoming) for a first exploration in the Eastern Bantu language Rundi.

(19) North Boma B82 (Stappers 1986: 52–57 glosses added)

- a. *namula:batómá:*
na-mu-la:ba-tóm-á:
 1SG.SUBJ-1.OBJ-PRS.HAB-send-PRS.HAB
 ‘I often send him.’
- b. *namula:batúminé:*
na-mu-la:ba-túmin-á:
 1SG.SUBJ-1.OBJ-PRS.HAB-send.APPL-PRS.HAB
 ‘I often send for him.’
- c. *namututóma*
na-mu-tu~tóm-a
 1SG.SUBJ-1.OBJ-PST.HAB~send-PST.HAB
 ‘I used to send him.’
- d. *namututúminé*
na-mu-tu~túmin-a
 1SG.SUBJ-1.OBJ-PST.HAB~send.APPL-PST.HAB
 ‘I used to send for him.’
- e. *abótúmi kó*
a-bó-tóm-í *kó*
 NEG-2SG.SUBJ-send-REM.PST NEG
 ‘You did not send.’
- f. *abómutúminí kó*
a-bó-mu-túmin-í *kó*
 NEG-2SG.SUBJ-1.OBJ-send.APPL-REM.PST NEG
 ‘You did not send for him.’

Bantu languages usually do not make use of applicative serial verb or converb constructions. In fact, while other PB verbal derivational suffixes have been regularly innovated since PB (Bostoen and Guérois 2022), the applicative has not. There are even languages such as Eton A71 where the loss of the inherited applicative suffix has not been compensated by the development of any alternative strategy, so that participants such as Beneficiaries, commonly encoded in Bantu as core arguments via applicative constructions, are simply encoded as objects that do not require licensing by any special form of the verb (Van de Velde 2008). Nevertheless, applicative serial verb constructions expressing instrumental (serial verb ‘take’), beneficiary (serial verb ‘give’), and comparative (serial verb ‘(sur)pass’) meanings appear to be extremely common in a Bantoid group known as Grassfields Bantu (Kießling 2021).

3 Syntax

Applicative constructions (ACs) in Bantu languages can be optional or obligatory. Languages where the applicative is obligatory on a root-by-root basis to introduce any given set of semantic roles except Agent (and occasionally Instrument) have a very restricted set of prepositions or no prepositions at all, e.g., the Chaga E60 language group (Bresnan and Moshi 1993). Languages with optional applicative constructions usually have a fairly developed system of prepositions, but the applicative might still be obligatory with certain verb roots to introduce certain semantic roles, e.g. Mongo-Nkundo C61 (see Section 4).¹⁰ Usually there are no restrictions related to the syntactic valence of the root: the applicative suffix in Bantu languages can appear on syntactically intransitive, monotransitive and ditransitive roots. Nevertheless, in cases where the applicative introduces a syntactic object, languages might show restrictions on the number of postverbal object NPs and/or object indexes on the verb (see De Kind and Bostoen 2012 on Luba-Kasai L31a). Additionally, there might be language-specific applicativization restrictions linked to the lexical meaning/semantic class of certain verb roots (see, e.g., Machobane 1989 who argues that experiencer verb roots in Sotho S33 cannot be applicativized).

Following Zúñiga and Creissels's introduction to this volume, Bantu languages have P-applicatives (= direct object applicatives), X-applicatives (=oblique applicatives) and P~X applicatives, meaning that the syntactic status of an applied phrase (AppP) with locative semantics can be in between an object and a syntactic adjunct (see Section 1). In languages with optional ACs, the morphosyntactic entity introduced by the applicative can alternatively be expressed as a prepositional phrase in the construction of the underived root, i.e., the base construction (BC), with a concomitant semantic and/or pragmatic difference(s) between the AC and the BC (see Section 4).¹¹ To my knowledge, there are no redirecting ACs in Bantu languages. The Tswana obligatory AC in (20) is an instance of an X-applicative: the transitive verb root 'kill' requires applicative derivation in order to co-occur with a phrase specifying the exact Location of the killing. Syntactically, *mó lltlápéj* 'on the stone' is an obligatorily present oblique: it cannot be made the subject of a passive construction, it cannot be indexed on the verb, nor can it appear in immediate postverbal position (see Bantu objecthood diagnostics in Section 1).

¹⁰ Additionally, there are also languages like Tswana S31 where a developing system of (quasi-)prepositions co-exists with obligatory applicative constructions for all peripheral participant roles except Instrument (see Creissels, this volume). However, synchronically, the presence of (quasi-)prepositions has no incidence whatsoever on the syntactic use of the applicative in Tswana. Their development can only be analyzed in terms of reinforcement of locative marking on locative phrases (Denis Creissels, p.c.).

¹¹ Certain semantic roles might have a bi-clausal structure as an alternative way of expression. For instance, in Bantu and Niger-Congo languages more generally, the Source and the Goal of movement with a verb such as 'move' cannot be expressed simultaneously in the frame of a single-verb construction; rather, a sequence of two verbs is necessary (Creissels 2006: 146–147; Creissels et al. 2008).

The valence of the applicativized stem in (20) is therefore not increased with respect to the corresponding root.

- (20) Tswana S31 (Creissels 1998: 133)

ke bolaetse noga mo letlapeng

kì-bólá-éts-í *nóχà* *mó* *lítlápé-ŋ*

1SG.SUBJ-kill-APPL.PRF-FV CL9.snake LOC CL5.stone-LOC

‘I killed the snake on the stone.’

The obligatory Luba-Kasai AC in (21) is an example of a P~X applicative. The verb root *y* ‘go’ requires the applicative to co-occur with the Path locative phrase *ku cisalu* ‘via the market’. Locative markers such as *ku* (< PB CL17 *kù-) in this language “straddle the categories of noun [class] prefixes and a type of preposition” (Kuperus and Mpunga wa Ilunga 1990: 9); although they can appear in subject and object position and be indexed on the verb, they display NP-level morphological properties which make them more similar to prepositional phrases (see Kuperus and Mpunga wa Ilunga 1990: 11-26 for a detailed discussion of their formal properties).

- (21) Luba-Kasai L31a (De Kind and Bostoen 2012: 110)

ng-èndààmùshingà *ù-di* *ù-y-il-a* *ku* *ci-salu*

CL1n-merchant 1.SUBJ-be 1.SUBJ-go-APPL-FV LOC.CL17 CL7-market

‘The businessman is going via the market.’

Note that the Luba-Kasai root *y* ‘go’ can also optionally co-occur with the locative phrase *ku cisalu* in its underived form, but in this case the locative phrase can only be understood as a Spatial Goal (22).

- (22) Luba-Kasai L31a (De Kind and Bostoen 2012: 110)

ng-èndààmùshingà *ù-di* *ù-y-a* (*ku* *ci-salu*)

CL1n-merchant 1.SUBJ-be 1.SUBJ-go-APPL-FV LOC.CL17 CL7-market

‘The businessman is going (to the market).’

These language-specific, root-by-root idiosyncrasies in the obligatory use of the applicative virtually always revolve around location/spatial semantic roles. To give another example, the Lunda root *hólok* ‘fall down’ does not require applicative derivation to co-occur with a locative phrase expressing the Location of the event of falling, but does require it to co-occur with a Goal/Endpoint locative phrase.¹²

¹² Some authors argue that in these cases, the applicative “changes” the semantic role of the locative phrase. For arguments against this analysis see Pacchiarotti (2020: 126–132).

- (23) Lunda L52 (Kawasha 2003: 261)

*wahóloka mukaloña**wu-a-hólok-a* (mu-ka-loña)

1.SUBJ-PST-fall.down-FV LOC-CL12-river

‘He fell down ([while he was standing] in the river).’

- (24) Lunda L52 (Kawasha 2003: 261)

*wahóloka mukaloña**wu-a-hólok-el-a* mu-ka-loña

1.SUBJ-PST-fall.down-FV LOC-CL12-river

‘He fell down into the river.’

The optional Mbuun AC in (26) is an instance of a P-applicative. The syntactically ditransitive root *p* ‘give’ in (25) can optionally co-occur with the prepositional phrase *óngírá mwan* ‘for the child’. Alternatively, the Beneficiary can also be introduced by applicative derivation.¹³ In (26), ‘child’ is “promoted” to objecthood status compared to (25): it appears in immediate postverbal position, can be indexed on the verb and can be omitted from the construction (i.e., zero anaphora) just like objects of syntactically transitive verb roots in Mbuun (Bostoen and Mundeke 2011: 189–191). However, the base objects of the root lose some of their object properties. Hence, the applicativized stem in (26) is arguably tritransitive even though not all postverbal NPs display the same object properties.

- (25) Mbuun B87 (Léon Mundeke, p.c.)

maam wápa táár mats óngírá mwan

<i>maam</i>	<i>o-á-p-a</i>	<i>táár</i>	<i>ma-ts</i>	<i>óngírá</i>	<i>mo-an</i>
CL1.mother	1.SUBJ-PRS.PROG-give-FV	CL1.father	CL6-water	PREP	CL1-child

‘Mother is giving father water for the child.’

- (26) Mbuun B87 (Bostoen and Mundeke 2011: 190)

maam wápyéllé mwan táár mats

<i>maam</i>	<i>o-á-pyéllé</i>	<i>mo-an</i>	<i>táár</i>	<i>ma-ts</i>
-------------	-------------------	--------------	-------------	--------------

CL1.mother	1.SUBJ-PRS.PROG-give.APPL	CL1-child	CL1.father	CL6-water
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‘Mother is giving father water for the child.’

Generally P-applicatives formed on a syntactically transitive verb root deriving a ditransitive verb stem are identical to ditransitive/double object constructions featuring

¹³ Léon Mundeke (p.c.) informs me that in fact there is a slight semantic difference in the propositional meaning of (25) compared to (26). When the Beneficiary is introduced as a prepositional phrase, the subject is doing the action with special affection. This semantic nuance is absent in (25).

syntactically ditransitive verb roots such as *p* ‘give’ in (25). Depending on whether the original object of a transitive verb root and the object brought about by the applicative behave the same against a set of objecthood diagnostics, the terms symmetrical vs. asymmetrical objects/object-type language are used after the seminal work of Bresnan and Moshi (1990). For instance, (26) would be considered an asymmetrical object construction.

An AppP in Bantu can also be an NP followed by an infinitival form of the verb as in (27), where the syntactically transitive root *lâm* ‘prepare’ co-occurs with a Purpose AppP. More research is needed to determine whether these clause-like AppPs behave syntactically as objects.

- (27) Ding B86 (Kamtsha variety) (Donatien Musimar Aleben p.c.)

biyáléàm mwàn kùdí

bi-ya-léàm

mù-àn

kù-dí

1PL.SUBJ-PRS.PROG-prepare.APPL CL1-child CL15-eat

‘We prepare (food) so that the child can eat.’ (lit: we prepare for the child eating)

In languages with optional ACs, applicativization may condition the access of syntactic adjuncts to topicalization and focalization.¹⁴ Consider the Nsong proverb in (28), extracted from a corpus of over two hundred spontaneously recorded proverbs.

- (28) Nsong B85d (Koni Muluwa and Bostoen 2007: 553)

mokíl a nkím, éwá bawakéndél nkím

[mɔ-kíl a N-kím]_{TOP} [éwá]_{FOC} ba-wa-kánd-íl N-kim

CL3-tail CONN CL9-monkey CL3.DEM 2.SUBJ-TAM-tie-APPL CL9-monkey

‘It is with its own tail that they tie up the monkey.’ (lit: as for the monkey’s tail, with that they tie up the monkey)¹⁵

The syntactically transitive verb root *kand* ‘tie up’ undergoes optional applicative derivation to introduce the Instrument AppP *mokíl a nkím* ‘the tail of the monkey’. The AppP appears dislocated in sentence initial position and is then anaphorically referred to by a demonstrative pronoun which agrees in class with the head noun

¹⁴ I am not aware of a Bantu language where the applicative conditions the access of a syntactic adjunct to relativization. There are usually dedicated constructions to relativize core as well as non-core arguments without the need of applicative derivation (Meeussen 1967; Nsuka-Nkutsi 1982).

¹⁵ The free translation of (28) renders the French translation in the original which reads *C’est avec sa propre queue qu’on lie un singe*. In fact, because the CL2 subject index *ba-* on the verb is used in Nsong as a 3PL functional passive, another possible translation would be ‘It is with its own tail that the monkey is tied up’. The meaning of the proverb is as follows: if someone has never paid the bride price for his wife to his in-laws but receives bride price for his own daughter, he should pay to his in-laws what he has received from his son-in-law for his daughter.

(CL3) and appears in immediately preverbal position. In Nsong, clause initial position is the topic position, while narrow-focused subject and object arguments appear immediately before the verb (Koni Muluwa and Bostoen 2014). The Instrument AppP in (28) could alternatively be expressed as a prepositional phrase headed by the preposition *eyí* ‘with’, i.e., *eyí mokíl a nkím*, but this adjunct cannot be topicalized in clause initial position (Joseph Koni Muluwa p.c.). Hence, in (28) the applicative introduces an object AppP which can then be topicalized and focalized. In fact, most AppPs in the corpus of proverbs appear in clause-initial position. For a parallel example of the use of optional ACs to topicalize Instruments in Chewa N31 proverbs see Trithart (1983: 183).

4 Semantics

In (mostly eastern) Bantu languages where applicative derivation is the only structural means with a given verb root to express a given non-Actor semantic role into a main clause (including Themes), the applicative suffix is semantically underspecified in that many distinct semantic roles can be mapped onto the AppP. This mapping depends on lexical meaning of the verb root, the meaning of other constituents present in the clause, and the communicative intention of the speaker. For example, in the eastern Bantu language group Chaga (E60), applicative derivation is required to express all semantic roles except Instrument, Agent, Patient and Possessor (see also Tswana in Creissels, this volume). In languages where ACs are optional, applicative morphology can become restricted in the kinds of semantic roles it optionally introduces. For instance, in Mbuun B87 (Bostoen and Mundeke 2011: 187–188), the applicative can only introduce Recipient, Beneficiary, Maleficiary and Reason AppPs. On the other hand, in Mongo-Nkundo C61, a much wider variety of semantic roles (including Instrument, Purpose, and Location) can be optionally expressed by the applicative (Hulstaert 1965: 257–263). In languages with optional ACs such as Mongo, however, the applicative can still be obligatory with certain verb roots to express certain semantic roles. For instance, with a root such as ‘fall’, the only way to express the Endpoint of the event of falling in (29) is with applicative derivation.

- (29) Mongo-Nkundo C61 (Mbandaka variety) (Hulstaert 1965: 262, glosses added)

mbúla éɔdʒwêla bofaya

mbúla éɔ-dʒw-él-a bo-faya

CL9.rain 9.SUBJ-PRF-fall-APPL-FV CL1-visitor

‘It has rained on the visitor.’ (lit: rain has fallen on the visitor)

None of the prepositions present in Mongo-Nkundo can be used to express the meaning ‘on the visitor’ in the construction of the underived root (Gertrude Ekombe, p.c.),

although other interpretations (such as the Location where the rain falls) are possible as shown in (30).

- (30) Mongo-Kundo C61 (Mbandaka variety) (Gertrude Ekombe, p.c.)

mbúla *ě-ɔ-jw-a* *ěle* *bo-faya*
 CL9.rain 9.SUBJ-PRF-fall-FV LOC.PREP CL1-visitor
 ‘It rained at the visitor’s place.’
 *(intended: It rained on the visitor)

On the other hand, the Mongo root *kaf* ‘share, distribute’ can participate in the optional AC in (31) where the applicative introduces the Recipient AppP *baékoli* ‘to the pupils’.

- (31) Mongo-Nkundo C61 (Mbandaka variety) (Hulstaert 1965: 260, glosses added)

kafela baékoli mbɔmbɔ
kaf-él-á *ba-ékoli* *mbɔmbɔ*
 distribute-APPL-FV CL2-student CL9.chikwangue
 ‘distribute *chikwangue* to the pupils’¹⁶

This semantic role could also be expressed in the construction of the underived root as a prepositional phrase as in (32) without any semantic differences which could be captured in an elicitation context.

- (32) Mongo-Nkundo C61 (Mbandaka variety) (Gertrude Ekombe p.c.)

kaf-á *mbɔmbɔ* *ěle* *ba-ékoli*
 distribute-FV CL9.chikwangue LOC.PREP CL2-student
 ‘distribute *chikwangue* to the pupils’

In languages with optional applicative constructions, the differences between the BC and the AC can be semantic and/or discourse-oriented, although there is still too little research on this topic to make reliable generalizations. In terms of semantics, optional ACs such as (34) can convey a higher degree of involvement/volitionality of the Agent in the situation with respect to the BC in (33). According to Donatien Musimar Aleben (p.c.), (33) would be uttered if the person who died did not know that there was a snake somewhere: they got bit by the snake by accident and this caused their death. On the other hand, (34) would be uttered if the person who died already knew there was a snake out there and purposefully went to kill it, but the snake bit them to defend itself.

¹⁶ Chikwangue, also known as *kwanga*, is a bitter fermented dough of manioc which is a staple food in the DRC and other Central and West African countries.

- (33) Ding B86 (Kamtsha variety) (Donatien Musimar Aleben p.c.)

ndé àkáy sámà ntyèl

ndé à-káy sámà ntyèl

3SG 1.SUBJ-die.PST PREP CL9.snake

‘He died because of the snake.’

- (34) Ding B86 (Kamtsha variety) (Donatien Musimar Aleben p.c.)

ndé àkwéél ntyèl

ndé à-kwéél ntyèl

3SG 1.SUBJ-die.APPL.PST CL9.snake

‘He died because of the snake.’

Other reported semantic differences between ACs and corresponding BCs have to do with the idea of “achieved goal”. According to Mabugu (2001: 120), optional ACs expressing an Animate Goal in Shona (e.g., *Mother sent child toward grandmother*) differ semantically from their corresponding BCs in that they entail that the event described by the root culminates at the endpoint (i.e. the child reaches grandmother), while the BCs do not necessarily imply an achieved goal.

In terms of information structure, optional ACs in Bantu are used when the AppP is a discourse topic, see (28). For instance, Rapold (1997: 43–44) finds that in a corpus of spontaneous discourse optional ACs expressing animate Beneficiaries in Lingala C30B are used whenever the Beneficiary is pronominal, i.e., given in discourse. Similarly, Kisseberth and Abasheikh (1977) and Trithart (1983: 181–183) show that optional ACs introducing Instrument AppPs in Mwiini G412 and Chewa N31 respectively are used only when Instruments are asserted or presupposed in previous discourse.

5 Lookalikes

Suffixes formally identical to and behaving morphophonologically the same as reflexes of PB applicative *-id can have several valence-neutral semantic and discourse functions. Crucially, they are available on a language-specific, root-specific basis whenever the applicative is not required to introduce a non-Actor semantic role. Compared to the classic valence-increasing function, they are much less researched and understood. Some of these valence neutral functions are conceptually (and possibly diachronically) closely related to the syntactic functions of PB *-id and point to the polyfunctionality of the suffix. Others are rather at odds with those, which leaves one wondering whether there were not originally two or more formally and functionally distinct suffixes in PB (or earlier on) which merged into or became homophonous with *-id (Hyman 2007; Pacchiarotti 2020: 279–286; 2022).

Semantically, reflexes of PB *-id are used virtually everywhere in present-day Bantu languages to indicate that the action/state described by the root is performed to completion, or that the action is performed continuously, with intensity, persistence, excess, or repetition, among other aspectual nuances.¹⁷ Depending on the language-specific phonotactics and minimality/maximality constraints (see Section 2), one, two, or even three applicative suffixes might be required to express this *Aktionsart* function, which is usually not fully productive, but rather restricted to a certain number of roots in the lexicon. In (35), the transitive Mongo root *ɔtsw* ‘penetrate’ undergoes applicative derivation and the meaning of the derived stem is penetrate the forest deeply, far away.

- (35) Mongo-Nkundo C61 (Hulstaert 1965: 263)
ǎɔɔtsw(ɛl)a ngonda
ǎ-ɔ-ɔtsw-(ɛl)-a *ngonda*
 1.SUBJ-PRF-penetrate-(APPL)-FV CL9.forest
 ‘He has penetrated (deeply, far away) the forest.’

The two functions related to information structure always involve a Location AppP. A first widespread function of the applicative is placing an AppP with a Location-related semantic role (usually the Location where the event takes place) under some kind of narrow or constituent focus. This function is usually available only for those roots which do not require applicative derivation to co-occur with the Location-related AppP which is being narrow-focused, such as the Kongo ya Leta root *lám̩b* ‘prepare food’ in (36). While (36) is athetic statement which could be a felicitous answer to a question like *What’s happening?*, the construction in (37), structurally identical to (36) except for the presence of the applicative on the verb stem, places the prepositional phrase *nà nzúngù yà néné* ‘in the big pot’ under selective (choosing one item from among a pre-supposed set of possible values) or replacing focus (removing an item in the pragmatic information of the addressee and replacing it with the correct one), following the terminology of Dik et al. (1981). Different speakers consistently report that (37) would be used to correct the expectation of a hearer who believes that the women are cooking in another pot or to inform the hearer that among other possible cooking vessels, the women are preparing the food in the big pot. As such, (37) would be a felicitous answer to *In which pot are they preparing?* or *Are they preparing in the small pot?*¹⁸

¹⁷ Some authors report meanings such as that the action described by the verb root is performed in vain or little by little (Hulstaert 1966; Sharman 1963).

¹⁸ In the Kongo ya Leta spoken in Kikwit, applicative morphology can also be used on *where* questions with a similar meaning nuance to the one described by the contrast between (36) and (37). For example, *mwána kédílà wápi?* | *mù-ána kè-díl-à wápi* | CL1-child PRS.PROG-cry-FV where | ‘Where is the child crying?’ would be used by someone who does not know where the crying child is located. However, *mwána kédídílà wápi?* | *mù-ána kè-díl-il-à wápi* | CL1-child PRS.PROG-cry-APPL-FV where | ‘Where is the child crying?’ would be used when the speaker expects the child to be somewhere (e.g., in the house), but because

- (36) Kongo ya Leta spoken in Kikwit (Joseph Koni Muluwa p.c.)

*bànkéntò kèlámà nà nzúngù yà néné**bà-nkéntò kè-lámà nà n-zúngù yà néné*

CL2-woman PRS.PROG-prepare-FV PREP CL9-pot CONN big

‘The women are preparing (food) in the big pot.’

- (37) Kongo ya Leta spoken in Kikwit (Joseph Koni Muluwa p.c.)

*bànkéntò kèlámà nà nzúngù yà néné**bà-nkéntò kè-lámà-ìl-à nà n-zúngù yà néné*

CL2-woman PRS.PROG-prepare-APPL-FV PREP CL9-pot CONN big

‘The women are preparing (food) IN THE BIG POT.’

As far as available sources allow to say, new information focus, or “completive” in the terminology of Dik et al. (1981), can also be signaled by applicative derivation (on an Event Location AppP), see Pacchiarotti (2020: 144–157) for an overview.

A second discourse function, attested so far only in eastern Bantu languages, is what has been called “implicit contrast” (Trithart 1983: 170), “widening the scope of the locative phrase” (Grégoire 1998; Hyman, Duranti, and Morolong 1980; Trithart 1977), or “argument orientation” (Pacchiarotti 2020: 141). To see this, consider the contrast between (38) and (39). In (38), the root *uumv* is followed by an object NP ‘snake’ and an adjunct-like locative phrase ‘in the forest’ which has scope over the object NP ‘snake’ but leaves the position of the subject vague: the man could or not be in the forest. When the same root co-occurs with the applicative in (39), the scope of the locative phrase is now on the subject NP ‘the man’ while the position of the object is vague. In this case too, the only structural difference between (38) and (39) is that in (39) the Location AppP can no longer be omitted.

- (38) Rundi JD62 (Misago et al., forthcoming)

*Umugabo yuúmvye inzóka (mw’iishaamba)**u-mu-gabo a-á-uúmv-ye i-N-zóka (mu i-Ø-shaamba)*

AUG-CL1-man 1.SUBJ-REM.PST-hear-PFV AUG-CL9-snake CL18 AUG-CL5-forest

‘The man heard the snake in the forest.’

Implication: The snake is in the forest, the man could be or not in the forest.

of where the crying comes from he/she realizes that the child is elsewhere (e.g., outside). Elsewhere in Bantu, applicative morphology commonly occurs on *where*, *why* and *how* questions (Trithart 1983: 148).

(39) Rundi JD62 (Misago et al., forthcoming)

Umugabo yuúmvíye inzóka mw'iishaamba

u-mu-gabo a-á-uúmv-i-ye i-N-zóka mu i-Ø-shaamba

AUG-CL1-man 1.SUBJ-REM.PST-hear-APPL-PFV AUG-CL9-snake CL18 AUG-CL5-forest

'The man heard the snake in the forest.'

Implication: The man is in the forest, the snake could be or not in the forest.

The few data available for other languages indicate that there are cases where the scope of the locative phrase is not shifted from the object to the subject NP, but is widened to include both subject and object NPs (see Pacchiarotti 2020: 141–144).¹⁹

While lexical aspectual meanings can be conveyed by other verbal derivational suffixes in Bantu (see, e.g., Bostoen, Dom, and Segerer 2015) and even Bantoid (Kießling 2004), the discourse functions of narrow focus and argument orientation are exclusive to the applicative. What is more, the applicative is the only verbal derivational suffix which can serve opposite discourse functions, namely topicalization (see Section 3) and focalization, depending on the construction, the verb root and the language.

6 Conclusions

According to the analytical levels set out in the questionnaire underlying the contributions to this handbook, applicative constructions in Bantu languages can be summarized as follows:

Morphology

- Bantu languages usually have only one dedicated applicative verbal suffix reconstructed as *-id in Proto-Bantu. Nevertheless, verbal derivational suffixes with other primary functions (e.g., PB *-an 'reciprocal', PB *-ici 'causative') can take on applicative functions over time.
- Bantu languages usually do not make use of applicative serial verb or converb constructions.
- Reflexes of PB *-id in present-day Bantu languages range from phonologically transparent to phonologically complex, involving phenomena such as metathesis, assimilation, and vowel lengthening, umlaut and diphthongization among other processes. These phonologically complex reflexes are usually due to phonotactic

¹⁹ There is actually a third semantico-pragmatic function of applicative morphology in relation to Location AppPs, namely, indicating that the action described by the verb root habitually occurs at a certain location. This has been reported in a handful of eastern Bantu languages (see, e.g., Creissels 2004) and might be an effect of the interaction between the applicative and tense/aspect morphemes (Mabugu 2001).

maximality constraints (number of syllables allowed per verb stem, restrictions in the place of articulation of consonants in specific positions within the stem, etc.) especially common in northwestern languages. As it happens with other reconstructed PB derivational suffixes, reflexes of PB *-id very often undergo nasal and/or vowel height harmony. Especially in eastern Bantu languages, the applicative in combination with monosyllabic verb roots can be doubled or undergo vowel lengthening to satisfy minimality length constraints on the verb stem.

- In general, applicativized verb stems take the same TAMP morphology as their underived counterparts, although future research should investigate the relationship between the information-structure sensitive conjoint-disjoint morphology and the applicative in its focalizing function.

Syntax

- An AppP can be an oblique, a direct object, an embedded clause featuring a non-finite form of the verb, or a morphosyntactic entity in between an oblique and a core object argument. The latter are usually phrases with locative semantics which were presumably part of the noun class system in PB (and thus being NPs were more likely to be core syntactic arguments) and have been preserved or restructured in different ways in present-day languages. Perhaps the only generalization that can be made about the syntactic status of AppPs in different ACs is that those which introduce a Beneficiary, Recipient or Human Goal often have the syntactic status of (direct) object. This implies that ACs are not always valence-increasing in Bantu languages. Valence-rearranging ACs are not attested in Bantu languages.
- In languages with optional ACs the semantic role introduced by the applicative can be alternatively expressed in the BC as a prepositional phrase (with concomitant semantic and/or discourse differences between the BC and the optional AC). In the optional ACs, this erstwhile oblique constituent is syntactically promoted to objecthood.
- In eastern Bantu languages where minimality constraints predominate, there are no restrictions on the stacking of voice operations on the verb stem. The templatic order in which voice operations occur is Causative Applicative Reciprocal Passive, but compositionality or semantic scope constraints allow for variations of this templatic ordering in some languages. In the northwestern languages, the same maximality constraints affecting the phonological realization of reflexes of PB applicative *-id also affect the realization of a sequence of verbal derivational suffixes.
- When applicative derivation occurs on a syntactically transitive verb root and the AppP is syntactically a direct object, the resulting applicativized construction is identical (except for the presence vs. absence of the applicative) to a construction where a syntactically ditransitive verb root occurs with two postverbal object NPs. Traditionally, depending on whether these two objects behave the same or not according to a given set of objecthood diagnostics, they are called symmetrical or asymmetrical.

- In languages with optional ACs, applicativization can condition the access of non-core syntactic arguments to operations such as topicalization and focalization. These operations are typically available to subjects and objects in Bantu but not to syntactic adjuncts. These need to become objects through applicativization in order to be topicalized (and sometimes focalized).

Semantics

- Bantu languages typically have only one applicative verbal suffix. Usually, there are no restrictions on applicativization depending on the syntactic valence of the verb root, but occasional restrictions dictated by the lexical meaning of the verb root have been reported.
- ACs in Bantu languages can be optional or obligatory depending on the language, the verb root and the non-Actor semantic role which needs to co-occur with that root in a given communicative context. In languages with obligatory ACs, reflexes of PB applicative *-id are semantically underspecified in the sense that they can introduce any non-Actor (sometimes excluding Instruments) semantic role depending on the lexical meaning of the verb root and the communicative context. In languages with optional ACs, the applicative might become restricted in the types of semantic roles it can introduce and/or there might be semantic roles which can only be introduced by the applicative. In general, there is remarkable language-specific, root-specific variation and idiosyncrasy as to whether a verb root requires the applicative to co-occur with a phrase expressing Spatial Goal and other types of Location-related semantic roles such as Event Location, Location of a specific participant of the event, Path, Source, etc.
- The semantic differences between a BC with a semantic role expressed as a prepositional phrase and the corresponding optional AC where that semantic role usually becomes an object argument are still poorly understood. Nevertheless, optional ACs involve notions such as greater involvement/agentivity of the S/A argument and “achieved” goal/endpoint.
- Pragmatically, optional ACs are often used to topicalize an AppP.
- Although studies based on discourse corpora are limited, available evidence suggests that optional ACs are typically used when the AppP is discourse-given.

Lookalikes

- Suffixal forms identical to and displaying the same morphophonological behavior as the applicative suffix have developed at least three valence-neutral functions.
- Semantically, morphology identical to reflexes of *-id can add aspectual nuances to the meaning of the verb root, including repetitiveness, completeness, thoroughness, excess, persistence, intensity, intentionality, among many others.
- The two valence-neutral discourse functions involve only Location(-related) AppPs and are usually available only when in a given language and with a given root

applicative morphology is *not* required to introduce the Location(-related) AppPs targeted by the discourse functions. These functions are: placing a Location(-related) AppP under narrow constituent focus, and widening/shifting the scope of a Location(-related) AppP with respect to subject and object arguments.

Abbreviations

In the following, *x* stands for a number and parentheses indicate optionally present elements.

1	first person
2	second person
3	third person
APX	agreement prefix of class <i>x</i>
APPL	applicative
AUG	augment
CAUS	causative
CLX	noun class prefix of class <i>x</i>
CONN	connective
COP	copula
DEM	demonstrative
DJ	disjoint verb form
FV	final vowel
^H	melodic H tone
HAB	habitual
IMPS	impositive
INTR	intransitive
IPFV	imperfective
LOC	locative
NEG	negation
X.OBJ	object (of class <i>x</i>)
PASS	passive
PFV	perfective
PL	plural
PREP	preposition
PRF	perfect
PROG	progressive
PRS	present
PST	past
REC	reciprocal
REFL	reflexive
REM	remote
SEP	separative
SG	singular
X.SUBJ	subject (of class <i>x</i>)
TAM(P)	tense-aspect-mood(-polarity)
TR	transitive

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Sylvie Voisin and Denis Creissels

22 B-applicatives and I-applicatives in Atlantic languages (Niger-Congo)

Abstract: This chapter provides an overview of applicative constructions in a sample of 27 languages belonging to the Atlantic branch of the Niger-Congo family. Most of the languages of the sample have two distinct applicative suffixes, and none of them has an applicative suffix that would be equally available to license applied phrases expressing the roles of beneficiary and instrument. After a relatively detailed description of the applicative constructions of Wolof (a language with two applicative suffixes) and Jóola Fóoñi (a languages with just one applicative suffix, in which the applicative strategy is not used to encode beneficiaries), the chapter discusses possible generalizations concerning the Atlantic applicatives that have the ability to license applied phrases expressing the role of beneficiary (B-applicatives) and those that have the ability to license applied phrases expressing the role of instrument (I-applicatives).

1 Introduction

This chapter is devoted to a typological investigation of applicative constructions in Atlantic languages.¹ An interesting particularity of Atlantic languages is that they share the following limitation to the polysemy of applicative markers: none of the applicative markers attested in Atlantic languages is found both in benefactive and instrumental applicative constructions. At the same time, applicative markers exclusively found in functions other than benefactive or instrumental are rare. This suggests organizing the search for regularities in the properties of Atlantic applicatives with a focus on possible contrasts in the behavior of the applicative markers that have the ability to license applied phrases in benefactive role (B-applicative markers) and those having the ability to license applied phrases in instrumental role (I-applicative markers).

¹ In this paper, we adopt the delimitation of the Atlantic language family put forward by Konstantin Pozdniakov and Guillaume Segerer (Pozdniakov and Segerer, forthcoming). Atlantic languages as delimited by Konstantin Pozdniakov and Guillaume Segerer are a proper subset of the Atlantic language family as delimited by Greenberg and Sapir. There is consensus that the languages classified as “Atlantic” by Greenberg and Sapir belong to the Niger-Congo macro-family, but Pozdniakov and Segerer argue that there is no convincing evidence that they constitute a genetic unit within Niger-Congo. The label *Atlantic* as they use it applies to a subset of Greenberg/Sapir’s “Atlantic” that excludes Mel languages and a few other languages that, in the present state of our knowledge, are best considered as Niger-Congo isolates. As reflected in Table 1, two branches of (New) Atlantic are recognized: Northern and Bak.

The chapter is organized as follows. Section 2 provides some basic information about clause structure in Atlantic languages and introduces the distinction between B-applicatives and I-applicatives. Section 3 consists of two sub-sections in which we describe the applicative constructions of two languages for which we have detailed first-hand data: Wolof and Jóola Fóoñi. Section 4 and Section 5 are devoted to the discussion of possible generalizations about B-applicatives and I-applicatives, respectively. Section 6 summarizes the main conclusions.

2 Clause structure in Atlantic languages, and first observations on Atlantic applicatives

Atlantic languages are among the languages for which the recognition of a grammatical relation “subject” conflating A (the term of the transitive construction representing the agent of prototypical transitive verbs) and S (the sole core NP in clauses projected by monovalent verbs) is unproblematic. A grammatical relation “object” corresponding to the typological notion of P can also be recognized. The Atlantic languages do not have a grammatical relation “indirect object” comparable to that found in most European languages, but make extensive use of multiple-object constructions in which two or more NPs show coding characteristics identical to those of the object in monotransitive constructions.²

In all Atlantic languages, a distinctive property of the subject NP (as opposed to the other nominal terms of verbal clauses) is its fixed position immediately before the verb, contrasting with the default postverbal position of objects and obliques. In most Atlantic languages if not all, subjects have indexation properties which clearly distinguish them from objects and obliques, but there is important cross-linguistic variation in the details of subject and object indexation. In general, subjects and objects are unflagged, whereas obliques are standardly flagged by prepositions.

With very few exceptions, Atlantic languages have multiple-gender systems with the kind of relationship between noun morphology and the division of nouns into genders typically found in several branches of the Niger-Congo family, traditionally described in terms of “noun classes”.

In the languages in which the recognition of a grammatical relation “subject” is unproblematic, applicatives can be defined as V>V derivations in which the derived verb occurs in constructions characterized by a change in the mapping of semantic roles onto syntactic roles meeting the following two conditions:

² This definition does not imply the lack of hierarchy in the behavioral properties of the objects in multiple-object constructions. However, in this respect, we are not in a position to propose any generalization about the multiple-object constructions of Atlantic languages.

- the subject of the derived verb expresses the same semantic role as that of the base verb;
- the construction of the derived verb differs from that of the base verb in the expression of a semantic role that cannot be encoded as an object in the construction of the base verb;³ the phrase expressing the semantic role in question in the construction of the derived verb can be designated as the applied phrase.

Two subtypes of constructions meeting this definition must be distinguished:

- in optional applicatives, the semantic role expressed by the applied phrase can also be expressed in monoclausal constructions whose nucleus is the base verb, but with a non-core coding distinct from its coding in the applicative construction;
- in obligatory applicatives, the semantic role expressed by the applied phrase cannot be expressed at all in monoclausal constructions whose nucleus is the base verb.

An important aspect of the broad definition of applicatives adopted in this volume is that it does not restrict the notion of applicative construction to constructions in which the applied phrase fulfills the syntactic role of object. The only condition is that, if the semantic role expressed by the applied phrase can be encoded in the construction of the base verb, it requires a non-core coding distinct from its coding in the applicative construction.

Another important aspect of the definition formulated above is that it leaves open the possibility that the derived verbs identifiable as fulfilling an applicative function in some of their uses also have other functions. It is indeed very common that the same derived verb forms are found both in constructions meeting the definition of applicative constructions formulated above, and in constructions in which they fulfill other functions, either related to valency change or not.

The data we have gathered on Atlantic applicatives include no applicative marker having the ability to license both applied phrases expressing the role of beneficiary and applied phrases expressing the role of instrument, and very few applicative markers used exclusively for semantic roles other than beneficiary and instrument. Consequently, a general discussion of Atlantic applicatives can conveniently be based on the distinction between B-applicatives or I-applicatives, defined as follows:

- B-applicative markers may license applied phrases expressing the role of beneficiary (and possibly other semantic roles), but not the role of instrument;
- I-applicative markers may license applied phrases expressing the role of instrument (and possibly other semantic roles), but not the role of beneficiary.

³ This condition is essential to distinguish applicative constructions from antipassive constructions, since applicative and antipassive constructions share the lack of change in the semantic role assigned to the subject.

As summarized in Table 1, B-applicative markers are found in all the languages of our sample, with the exception of those belonging to the Jóola group. I-applicative markers are attested in the vast majority of the languages of our sample (21 out of 27), but the languages whose description does not mention the existence of an I-applicative marker are scattered across various branches of the Atlantic family. Applicative constructions involving markers exclusively used to license applied phrases with roles other than beneficiary and instrument are attested in 5 languages.⁴

Table 1: B-applicatives and I-applicatives in Atlantic languages.

			B-appl	I-appl	others
North	Wolof	Wolof	- <i>al</i>	- <i>e</i>	-
	Nyun-Buy	Nyun	Guñaamolo	- <i>Vr</i>	- <i>um</i>
			Gubëeher	- <i>ur</i>	- <i>um</i>
			Gujaahar	- <i>d</i> (- <i>it</i> , - <i>in</i>)	-
	Buy	Kobiana		- <i>ar</i>	- <i>Vm</i>
					- <i>al</i>
	Tenda-Jaad	Tenda	Bedik	- <i>ín</i>	- <i>ál</i>
			Basari	- <i>an</i> (- <i>án</i>)	-
			Konyagi	- <i>nǎ́</i>	- <i>xáél</i>
	Jaad-Biafada	Jaad		- <i>ii</i> , - <i>rik</i>	- <i>een</i>
			Biafada	- <i>iig</i>	- <i>en</i>
					-
	Fula-Seereer	Fula		- <i>an</i>	- <i>ir</i> (- <i>r</i> , - <i>d</i> , - <i>or</i>)
			Seereer	- <i>an</i>	- <i>it</i>
	Cangin	Noon	- <i>id</i>	- <i>oh</i>	-
		Laalaa	- <i>ed</i> (- <i>id</i>)	- <i>oh</i>	-
		Saafi	- <i>id</i>	- <i>oh</i>	-
		Palor	- <i>id</i>	- <i>a?</i>	-

⁴ The sources we consulted for languages other than Wolof and Jóola Fóoñi are as follows. Guñaamolo: Bao Diop (2017), Bodian (2017); Gubëeher: Cobbinah (2013); Gujaahar: Goudiaby (2017); Kobiana: Doneux (1991); Bedik: Ferry (1991); Basari: Ferry (1991), Perrin (2019); Konyagi: Ferry (1991), Santos (1996); Jaad: Ducos (1971), Meyer (2001); Biafada: Wilson (1993); Fula: Arnott (1970), McIntosh (1984); Seereer: Faye (1979), Renaudier (2012); Noon: Soukka (2008), Lopis-Sylla Jeanne (2010), Wane (2017); Laalaa: Dieye (2011); Saafi: Mbodj (1983), Stanton (2011), Pouye (2015); Palor: D'Alton (1987); Ndut: Morgan (1996); Nalu: Seidel (Forthcoming); Jóola Esulaalur: Sambou (1979); Jóola Banjal: Bassène (2007); Jóola Kujireray: Watson (2015); Karon: Sambou (2007); Kuwaataay: Coly (2010); Bayot: Diagne (2009); Manjaku: Karlik (1972); Mankanya: Trifkovic (1969), Gaved (2020); Ganja: Creissels and Biaye (2016); Bijogo: Segerer (2002).

⁵ In Santos' (1996: 36) description of Konyagi, *ry* is the transcription of a single phoneme she describes as a particular trill phonemically distinct from plain *r*.

Table 1 (continued)

			B-appl	I-appl	others	
		Ndut	<i>-id</i>	<i>-aʔ</i> ⁶	–	
	Nalu	Nalu	<i>-er (-ir, -ar)</i>	–	–	
Bak	Jóola	Central Jóola	Fóoñi	–	<i>-úm</i>	<i>-en</i>
			Esuulaalur	–	<i>-úm</i>	–
			Banjal	–	–	<i>-en</i>
			Kujireray	–	–	–
		Jóola outliers	Karon	–	<i>-anan</i>	–
			Kuwaataay	–	–	–
			Bayot	–	–	–
		Manjaku-Mankanya	Manjaku	<i>-ar</i>	<i>-na</i>	–
		Mankanya	<i>-ar</i>	<i>-na</i>	–	
	Balant	Ganja	<i>-Vd</i>	–	–	
	Bijogo	Bijogo	<i>-an</i>	<i>-at</i>	–	

In this chapter, we present and analyze data showing that the operational definition of B-applicatives and I-applicatives formulated above helps capture interesting generalizations about Atlantic applicatives, since in Atlantic languages, B-applicatives and I-applicatives as we define them consistently differ in several important respects.

3 Two case studies

3.1 Wolof

3.1.1 Introductory remarks

Wolof has two applicative suffixes, the B-applicative marker *-al* and the I-applicative marker *-e*. In its benefactive function, the B-applicative marker occurs in an obligatory applicative construction, whereas in its instrumental function, the I-applicative marker occurs in an optional applicative construction. In (1), there is no alternative way to mention a beneficiary in a clause projected by *jénd* ‘buy’,⁷ whereas in (2), the instru-

⁶ In Ndut, the applicative use of *-aʔ* can be characterized as vestigial (see § 5.6.2).

⁷ Church (1981) and Njie (1982) mention the possibility of expressing beneficiaries by means of a locative preposition in a non-applicative construction, but we never came across such a construction in texts spontaneously produced by Wolof speakers. The problem is that Wolof is so widely used as a lingua franca that it is sometimes difficult to draw a dividing line between traditional Wolof as spoken in rural areas and usages found in Urban Wolof but deemed incorrect by traditional speakers.

ment can be encoded either as an applied object (2b), or as an oblique introduced by the preposition *ak* (2c). In both cases, the applied phrase is syntactically an object, and applicativization does not affect the expression of the other participants, which is made possible by the high productivity of double-object constructions in Wolof.

(1) Wolof (Diouf 2003)

- a. *Woto b-u xonq la jénd.*
 car clB-REL be.red FOC_{O/X}.SI:3SG buy
 'He bought a red car.'
- b. *Woto b-u xonq la jénd-al jabar-am.*
 car clB-REL be.red FOC_{O/X}.SI:3SG buy-APPL wife-POSS:3SG
 'He bought a red car for his wife.'
- c. **Woto b-u xonq la jénd (PREP) jabar-am.*
 car clB-REL be.red FOC_{O/X}.SI:3SG buy PREP wife-POSS:3SG
 Intended: 'He bought a red car for his wife.'

(2) Wolof (Diouf 2003)

- a. *Dafa dem c-a kër coro l-i.*
 FOC_V.SI:3SG go LOC-DIST house girlfriend clL-D.PROX
 'He went to her girlfriend's place.'
- b. *Woto la dem-e.*
 car FOC_{O/X}.SI:3SG go-APPL
 'He went by car.'
- c. *Boo fa-y dem ak woto,*
 when.SI:2SG there-ICPL go with car
dafa-y mel ni l-u jége.
 FOC_V.SI:3SG-ICPL resemble like clL-REL be.near
 'If you go there by car, it seems to be close.'

Both applicative markers can license applied phrases expressing other roles than those illustrated in (1) and (2). However, depending on the semantic role it expresses, the applied phrase does not always display the properties expected from a direct object. There is also variation in the obligatory or optional nature of the applicative construction.

3.1.2 Other uses of the B-applicative marker *-al*

3.1.2.1 *-al* and the expression of roles semantically close to the role of beneficiary

In addition to the role of beneficiary already illustrated above, the B-applicative marker licenses applied phrases expressing other roles that can be subsumed under the general notion of orientation of the action, such as goal (3), purpose (4), or con-

cernee (5).⁸ Applied phrases in constructions involving the B-applicative marker may also express roles that meet this general characterization but are difficult to classify in general terms because they are tightly bound to the lexical meaning of the verb, as in (6). In all cases, the applied phrase displays the same behavior as the object of underived transitive verbs, and there is no other means but the applicative to introduce these roles.

(3) Wolof (Diouf 2003)

Soo def-al-ul màngo s-i cëslaay, dina daanu.
 if.sI:2SG put-APPL-NEG mango.tree clS-D.PROX stake FUT.sI:3SG fall
 'If you don't put a stake to the young mango tree, it will fall.'

(4) Wolof (Voisin-Nouguier 2002)

Waa dëkk b-i yépp dem-al-oon benn dëkkandoo
 people.of village clB-D.PROX all go-APPL-PST one neighbor
santaane.
 collective.work
 'All the villagers had gone to a neighboring village for a collective work.'

(5) Wolof (Diouf 2003)

Fomp-al ko lex y-i.
 wipe-APPL oI:3SG cheek clY-D.PROX
 'Wipe his cheeks.' (Lit. 'Wipe him the cheeks.')

(6) Wolof (Diouf 2003)

Sos-al nga ma.
 say.bad.things-APPL PRF.sI:2SG oI:1SG
 'You bad-mouthed me.'

3.1.2.2 The comitative function of *-al*

The B-applicative marker *-al* also licenses applied phrases expressing the role of companion. However, in contrast to its other uses, the comitative use of the B-applicative marker *-al* is only possible if the applied phrase is focalized, questioned, or relativized, as in (7a), otherwise the role of companion can only be expressed by an oblique phrase introduced by the preposition *ak* 'with', without any verbal marking, as shown in (7b-c). As seen in (7d), the preposition *ak* 'with' may also be maintained in the presence of *-al*,

⁸ Following Van de Velde (2020), we designate as concernee a person concerned by the event by virtue of an inherent relationship (s)he has with a participant more directly involved in the event (the 'concern'). Concernees are commonly designated as 'external possessors'. As discussed in detail by Van de Velde (2020), concernee-concern constructions are prototypically motivated by a whole-part relationship between the concernee and the concern.

in which case *-al* does not act as an applicative marker, but rather as a verbal marker highlighting the pragmatic saliency of an oblique without modifying its syntactic status. However, this construction is not accepted by all informants.

(7) Wolof (Voisin-Nouguier 2002)

- a. *Sama rakk laa génn-al.*
 POSS:1SG younger.sibling FOC_{0/X}.SI:1SG go.out-APPL
 ‘It’s with my sister that I went out.’
- b. **Génn-al naa sama rakk.*
 go.out-APPL PRF.SI:1SG POSS:1SG younger.sibling
 Intended: ‘I went out with my sister.’
- c. *Génn naa ak sama rakk.*
 go.out PRF.SI:1SG with POSS:1SG younger.sibling
 ‘I went out (with) my sister.’
- d. *?Ak yow la soxna s-i di wax-al.*
 with 2SG FOC_{0/X}.SI:3SG woman clS-D.PROX ICPL speak-APPL
 ‘It’s with you that the woman is speaking.’

3.1.3 Other uses of the I-applicative marker *-e*

3.1.3.1 *-e* and the expression of roles semantically close to the role of instrument

In applicative constructions with the suffix *-e*, the applied phrases referring to roles semantically close to the role of instrument (such as means [8–9], material [10], or price [11]) behave syntactically as objects, and there are no other ways to express these roles.

(8) Wolof (Voisin-Nouguier 2002)

Alal-am j-i, amin w-u sell la ko
 wealth-POSS:3SG clJ-D.PROX way clW-REL be.pure FOC_{0/X}.SI:3SG oI:3SG
am-e.
 get-APPL
 ‘His fortune, he got it in an irreproachable way.’

(9) Wolof (Voisin-Nouguier 2002)

Gaal g-i, wiir la dem-e.
 pirogue clG-D.PROX sail FOC_{0/X}.SI:3SG go-APPL
 ‘It is under sail that the pirogue moves forward.’

(10) Wolof (Diouf 2003)

Ndaa l-i, ban lañu ko tabax-e.
 pot clL-D.PROX clay FOC_{0/X}.SI:3PL oI:3SG build-APPL
 ‘The pot was made from clay.’

(11) Wolof (Church 1981)

Ñaata nga leen jënd-e?
 how.much SI:2SG OI:3PL buy-APPL
 ‘How much did you pay for them?’

3.1.3.2 -e and the expression of source

The suffix *-e* also marks applicative constructions in which the applied phrase expresses the role of source (12). Contrary to the instrumental use of *-e*, the applied phrase is a prepositional phrase or an adverb displaying no object-like property, and there is no alternative way of expressing the role of source.

(12) Wolof (Diouf 2003)

War nañu fi jél-e jal-u mbalit b-i.
 have.to PRF.SI:3PL here remove-APPL heap-CSTR garbage clB-D.PROX
 ‘They should remove the garbage heap from here.’

3.1.3.3 -e and the expression of path

With verbs of motion, the suffixation of *-e* licenses applied phrases expressing the role of path (perlative). In this construction, illustrated in (13b), the applied phrase is a prepositional phrase introduced by a locative preposition or an adverb displaying no object-like properties, and there is no alternative way of expressing the role of path.

(13) Wolof (Diouf 2003)

- a. *Dugg na c-i nég b-i.*
 enter PRF.SI:3SG LOC-PROX room clB-D.PROX
 ‘He entered the room.’
- b. *Dugg-e na c-i bunt b-i.*
 enter-APPL PRF.SI:3SG LOC-PROX door clB-D.PROX
 ‘He entered through the door.’

3.1.3.4 -e and the expression of circumstantial roles (manner or location of the event)

The use of the I-applicative marker *-e* may also be conditioned by the presence of phrases that do not refer to participants, but to circumstances of the event: manner, as in (14–15), or location of the event, as in (16). There is, however, an interesting contrast with the uses of *-e* described in § 3.1.3.2–3.

As in the ablative and perlative uses of *-e* (see § 3.1.3.2–3), the phrases referring to circumstances of the event are prepositional phrases or adverbs that do not show object-like properties.

- (14) Wolof (Voisin-Nouguier 2002)

Na def-e nan?
 OBLG.SI:3SG do-APPL how
 'How should he do?'

- (15) Wolof (Diouf 2003)

Naka lañu tëral-e eksame y-i
 how FOC_{O/X}.SI:3PL organize-APPL exam clY-D.PROX
 'How did they organize the exams?'

- (16) Wolof (Voisin-Nouguier 2002)

C-i teraas b-i lañu-y lekk-e.
 LOC-PROX terrace clB-D.PROX FOC_{O/X}.SI:3PL-ICPL eat-APPL
 'It's on the terrace that they eat.'

Such examples could suggest that, in Wolof, manner phrases and location phrases are treated as applied obliques in an applicative construction. However, the same phrases in similar functions also occur in constructions in which the I-applicative marker is not present. The problem is that the available data are not sufficient to draw a general conclusion about the exact role of *-e* in such cases.

In the case of phrases expressing location, there is some evidence that the use of the applicative marker might reflect nuances within the semantic role of location.

On the one hand, pairs of sentences such as (17a–b) suggest that, with the same verb *dëkk* 'live somewhere', the absence of *-e* marks reference to a type of environment defined in general terms (a), whereas the presence of *-e* marks reference to a specific place (b).

- (17) Wolof (Diouf 2003, Voisin-Nouguier 2002)

- a. *Saafandu c-i àll rekk la-y dëkk.*
 wild.dog LOC-PROX bush only FOC_{O/X}.SI:3SG-ICPL live
 'Wild dogs live only in the bush.'
- b. *Ñu ngi dëkk-e c-i jéeri j-i.*
 SI:3PL PROG live-APPL LOC-PROX inland clJ-D.PROX
dex g-i sore na leen.
 river clG-C.PROX be.far PRF.SI:3SG oI:3PL
 'They live inland, the river is far from them.'

On the other hand, (18a–b) suggests that, with a verb like 'pound', the absence of *-e* may mark participant location (a) as opposed to event location (b).⁹

⁹ See Pacchiarotti (this volume) for a discussion of possible relationships between applicativization and the participant vs. event location contrast in Bantu.

(18) Wolof (Church 1981)

- a. *Gis naa fu mu-y dëbb.*
 see PRF.SI:1SG where SI:3SG-ICPL pound
 'I saw the thing in which she pounds.'
- b. *Gis naa fu mu-y dëbb-e.*
 see PRF.SI:1SG where SI:3SG-ICPL pound-APPL
 'I saw the place where she pounds.'

However, much more data than we have at our disposal would be necessary to confirm the contrasts suggested by such examples. In the absence of more precise and systematic information about the interaction between the lexical meanings of individual verbs, the semantic nuances that circumstantial phrases may express, and the constraints on the presence of the verbal suffix *-e*, we leave open the question of the extent to which the use of *-e* related to the presence of a manner or location phrase can be analyzed as an instance of applicativization or of optional highlighting of circumstantial phrases.

3.1.4 Lexicalized applicatives

Wolof has quite a few verbs that look like applicative verbs but are best analyzed as lexicalized applicatives. For example, the last vowel of *jóge* 'come from' could be the I-applicative marker *-e*, especially as the role of source is among those that can be expressed by the applied phrase in the applicative constructions marked by *-e*. However, synchronically, *jóg* can only mean 'stand up', whereas *jóge* has the general meaning 'come from', without any reference to the change of posture expressed by *jóg*.

3.1.5 *-al* as a polysemous causative-applicative marker

The verbal suffix *-al* is used productively, not only as a B-applicative marker, but also as a causative marker, as in (19).

(19) Wolof (Diouf 2003)

- a. *Paan b-i fees na.*
 basin clB-D.PROX be.full PRF.SI:3SG
 'The basin is full.'
- b. *Bul fees-al paan b-i.*
 PROH.SI:2SG be.full-CAUS basin clB-D.PROX
 'Don't fill the basin.'

With *toog* 'sit', the *al*-form *toog-al* can be interpreted as 'seat' (causation) or 'represent' (deputative benefaction, lit. 'sit on behalf of s.o.').

3.1.6 Co-expression patterns involving the I-applicative marker *-e*

A verbal suffix *-e* showing the same morphophonological behavior as the I-applicative marker is also found with some verbs as a marker of reciprocalization (20), antipassivization (21), causativization (22), or state-passivization (23). It is unclear to what extent these uses of valency-changing suffixes identical to the I-applicative marker *-e* can be analyzed as reflecting grammaticalization from a common source, or are just cases of accidental homonymy.

(20) Wolof (Diouf 2003)

- a. *Dafa-y nuyu boroom kër g-i.*
 FOC_v.sI:3SG-ICPL greet owner house clG-D.PROX
 'He is greeting the householder.'
- b. *Ñaar-i sefdetaa yaa ngiy nuyoo.*
 two-CSTR head.of.state sI:3PL PROG greet.RECP
 'The two heads of state are greeting each other.' (*nuyu-e* > *nuyoo*)

(21) Wolof (Diouf 2003)

- a. *Xaj b-i dafa ko màtt.*
 dog clB-D.PROX FOC_v.sI:3SG oI:3SG bite
 'The dog bit him.'
- b. *Xaj b-i dafa-y màtt-e.*
 dog clB-D.PROX FOC_v.sI:3SG-ICPL bite-ANTIP
 'The dog bites.'

(22) Wolof (Diouf 2003)

- a. *Saxaar s-ee tax mu génn.*
 smoke clS-D.PROX.FOC_s cause sI:3SG go.out
 'He went out because of the smoke.'
- b. *Dama-y génn-e woto b-i.*
 FOC_v.sI:1SG-ICPL go.out-CAUS car clB-D.PROX
 'I'm taking the car out.'

(23) Wolof (Diouf 2003)

- a. *Ub naa néeg b-i.*
 close PRF.sI:1SG room clB-D.PROX
 'I closed the room.'
- b. *Néeg b-i dafa ub-e bëccëg b-i yépp.*
 room clB-D.PROX FOC_v.sI:3SG close-STAT day clB-D.PROX all
 'The room remained closed all day long.'

3.1.7 Lexicalized uses of -e

There are also isolated verb pairs involving a suffix *-e* that are best analyzed in terms of lexicalization. For example, in the case of *des* (intransitive) ‘remain somewhere’ / *des-e* (transitive) ‘still have’, the subject of *des* is the figure in a figure-ground relationship, whereas the subject of *des-e* is a possessor. This precludes an applicative analysis, since by definition, applicativization does not affect the semantic role of the subject, and at the same time, the relationship between the argument structures and coding frames of *des* and *des-e* cannot be analyzed as an instance of any other general type of voice alternation.

3.1.8 Summary

Leaving apart some isolated cases of verbs that are formed by means of suffixes identical to an applicative marker but occur in constructions lending themselves to no generalization, it is possible to analyze as productive the following uses of the B-applicative and I-applicative markers of Wolof:

- The semantic role of beneficiary can only be encoded by means of the B-applicative marker in an obligatory applicative construction with the beneficiary encoded as an applied object. The B-applicative marker is used in the same way for the expression of roles semantically close to the role of beneficiary.
- The semantic role of comitative can be encoded in the construction of the undervived verb by means of the preposition *ak*; it can also be encoded in a construction involving the B-applicative marker, with the comitative phrase in the role of applied object, but only if the comitative phrase is focalized, questioned, or relativized; moreover, for some speakers, it is possible to maintain the preposition in the presence of the B-applicative marker, which brings into question the analysis of the construction as an applicative construction.
- The semantic role of instrument can be encoded in the construction of the undervived verb by means of the preposition *ak*, but also by means of the I-applicative marker in an optional applicative construction with the instrument phrase in the role of applied object. The I-applicative marker is used in the same way for the expression of semantic roles close to the role of instrument, such as means or material.
- The expression of the roles of ablative and perlative requires the I-applicative marker in an obligatory applicative construction in which the applied phrase does not display object-like properties.
- The use of the I-applicative marker may also be related to the presence of an oblique expressing manner or location of the event, but further investigation would be necessary to establish to what extent such constructions qualify as applicative constructions or not.

- A verbal suffix identical to the B-applicative marker is found in causative function, whereas a verbal suffix identical to the I-applicative marker is found in reciprocal, antipassive, causative, and state-passive function.

3.2 Applicative constructions in Jóola Fóoñi

3.2.1 Introductory remarks

Jóola Fóoñi does not have applicative constructions with the applied phrase expressing the semantic role of beneficiary. In Jóola Fóoñi, beneficiaries are encoded as objects indistinguishable from the objects representing the patientive argument of transitive verbs. For example, in (24), nothing indicates whether the object index suffixed to the verb must be interpreted as referring to the patient or to a beneficiary.¹⁰

(24) Jóola Fóoñi

Pan i-pos-ool.

FUT 3I:1SG-wash-I:clA

‘I’ll wash him/her.’ OR ‘I’ll do the washing for him/her.’

Jóola Fóoñi has two verbal suffixes that can mark applicative constructions: *-úm* and *-en*.¹¹ However, they differ considerably in terms of productivity.

The suffix *-en* is productive as a causative marker, but we are aware of only four verbs, all denoting bodily excretions, with which it may have an applicative function. With these verbs, *-en* yields derived transitive verbs whose object denotes the place towards which the excretion is directed.¹²

¹⁰ If not otherwise indicated, the Jóola Fóoñi examples quoted in this chapter are from Denis Creissels and Alain Christian Bassène’s work on a corpus of oral texts they transcribed and analyzed with the help of Boubacar Sambou as part of a project of a reference grammar of Jóola Fóoñi.

¹¹ In the Jóola orthography, the acute accent marks +ATR vowels. Jóola languages have a system of vowel harmony that can be described by positing that every formative is either underlyingly specified as +ATR, or underlyingly unspecified for the ATR feature. The formatives underlyingly specified as +ATR (for example, the verbal suffix *-úm*) are consistently realized with +ATR vowels, and tend to spread the +ATR feature to neighboring formatives, whereas the vowels of the formatives underlyingly unspecified for the +ATR feature are -ATR by default, but may acquire the +ATR feature in contact with underlyingly +ATR formatives.

¹² The same pattern is described by Cobbinah (2013: 256) in the Nyun language Gubêeher, where *-un* is a productive causative marker also found in applicative function with the following verbs: *sel* ‘urinate’ > *sel-un* ‘urinate on’, *reej* ‘defecate’ > *reej-un* ‘defecate on’, and *loot* ‘spit/vomit’ > *loot-un* ‘spit/vomit on’.

Table 2: Applicative use of the Jóola Fóoñi causative suffix *-en*.

base verb	<i>en</i> -derivation		
<i>-lac</i>	‘vomit’	> <i>-lac-en</i>	‘vomit on’
<i>-púus</i>	‘spit’	> <i>-púus-én</i>	‘spit on’
<i>-sur</i>	‘urinate’	> <i>-sur-en</i>	‘urinate on’
<i>-wooy</i>	‘fart’	> <i>-wooy-en</i>	‘fart in the direction of’

The suffix *-úm* is a productive I-applicative marker whose use is described in detail in the remainder of this section.

3.2.2 Optional applicative constructions with the applied phrase in object role

In Jóola Fóoñi, instruments can be encoded as obliques introduced by the multifunctional preposition *di* without any modification of the verb form (25a), but they can alternatively be encoded in an applicative construction (25b) in which the applied phrase fulfills the syntactic role of object, as evidenced by the fact that it has the form of a canonical NP or pronoun bearing no mark of its function, and can be indexed on the verb in the same way as the patients of prototypical transitive verbs. The presence of the applied object has no incidence on the coding of the other participants.

(25) Jóola Fóoñi

- a. *E-jala-a-y* *u-y-e*, *di-yo* *ni-sof-e-m* *si-wol-a-s*
 SG-net-D-clE DEM-clE-PROX with-I:clE SI:1SG-catch-ICPL-R/F PL-fish-D-clS
 ‘This net, it’s with it that I catch fish.’
- b. *E-jala-a-y* *u-y-e*, *y-oo* *ní-sóf-úm-é-m* *si-wol-a-s*
 SG-net-D-clE DEM-clE-PROX clE-PRO SI:1SG-catch-APPL-ICPL-R/F PL-fish-D-clS
 same meaning as (a)

As illustrated by example (25), in the instrumental use of the applicative marker, the applicative construction is particularly frequent if the instrument is focalized, although this is by no means a strict constraint.

The semantic role of material from which something is made can also be expressed, either as an oblique phrase introduced by the preposition *di* without any modification of the verb form, or as the applied object in an applicative construction, as in (26).

- (26) Jóola Fóoñi
Bu-sees-a-b, ká-búmp-á-k k-ati bu-saana-a-b
 SG-potash-D-clB SG-ash-D-clK cLK-GEN SG-ceiba.tree-D-clB
kú-rók-úm-é-bo-m.
 sI:clBK-produce-APPL-ICPL-I:clB-R/F
 ‘Potash is produced from the ashes of the ceiba tree.’

The semantic role of cause can also be expressed, either as a prepositional oblique, or as the applied object in an applicative construction, but the preposition used in the non-applicative construction (*mati*) is distinct from that used for the roles of instrument or material.

- (27) Jóola Fóoñi
 a. *Mati u-y-e ku-tey-e.*
 because.of DEM-clE-PROX sI:clBK-run-CPL
 ‘They ran away because of that.’
 b. *U-y-e kú-téy-úm-é.*
 DEM-clE-PROX sI:clBK-run-APPL-CPL
 same meaning as (a)

3.2.3 Obligatory applicatives with the applied phrase in object role

This configuration is only found with two verbs, and no generalization seems to be possible.

In the obligatory applicative construction of *-roŋ* ‘live’, the applied object refers to the way the referent of the subject earns his/her livelihood. This can just be viewed as an exception to the rule according to which the role of means is expressed by means of applicative constructions with the applied phrase in oblique role (see § 3.2.4).

- (28) Jóola Fóoñi¹³
Pan ú-róŋ-úm e-jeena-a-y y-ool-i.
 FUT sI:2SG-live-APPL SG-sweat-D-clE clE-POSS-I:2SG
 ‘You will leave by your sweat.’

The verb *-lako* ‘settle, sit, remain’ has an obligatory applicative construction with the applied phrase in object role expressing the meaning ‘maintain (something which is already in place), live with something’. The semantic role expressed by the applied phrase in this construction does not seem to be analyzable as a particular case of a more general type of semantic role regularly expressed by means of applicative constructions in Jóola Fóoñi.

¹³ Example taken from the Jóola Fóoñi version of Genesis.

(29) Jóola Fóoñi

E-cil-e-y *y-ati* *fucen,* *let* *u-ɲoolen-aa*
 INF-possess-D-clE ClE-GEN yesterday FUT.NEG sI:1PL-be.able-INCL
ú-lákó-úm-aa-yo *jaat.*
 sI:1PL-stay-APPL-INCL-I:clE today
 'Yesterday's ownership rules, we cannot maintain them today.'

3.2.4 Obligatory applicatives with the applied phrase in oblique role

In this configuration, the applied phrase is a prepositional oblique expressing a role that cannot be expressed within the limits of a clause projected by the base form of the same verb. Two productive uses can be distinguished, perlocative and mediative.

As illustrated in (30), prepositional obliques referring to a place through/along which something or someone moves must be licensed by the applicative form of the verb denoting motion.

(30) Jóola Fóoñi

N-an *i-nag-u-m* *e-jangoon-e-y,* *n-é-báal-úm* *di*
 clN-REL sI:1SG-hit-EP-R/F SG-cat-D-clE SEQ-sI:clE-jump-APPL PREP
e-palanteer-e-y *e-jaw* *e-maal.*
 SG-window-D-clE Is:clE-go Is:clE-go.away
 'When I hit the cat, it escaped by jumping through the window.'

As illustrated in (31), the same construction is also fully productive in mediative function, 'mediative' referring to anything that may contribute to the realization of an event involving the will of the participant encoded as the subject.

(31) Jóola Fóoñi

Di *ma-lilla-a-m* *m-ool-a* *ná-pák-úm-é.*
 PREP NN-intelligence-D-clM clM-POSS-I:clA sI:clA-escape-APPL-CPL
 'It is through his intelligence that he escaped.'

Semantically, the mediative use of *-úm* has obvious affinities with both the perlocative use and the instrumental use of the same marker. However, syntactically, the properties of the mediative applicative are identical to those of the perlocative applicative, and very different from those of the instrumental applicative: the instrumental applicative is optional, whereas the mediative applicative is obligatory, and the applied phrase is syntactically an object in the instrumental applicative, whereas it is a prepositional oblique in the mediative applicative.

In addition to the two productive cases of obligatory applicative constructions with the applied phrase in oblique role, an isolated case of a similar construction is found with the verb ‘come’, in which the applied phrase, introduced by the allative preposition *bee*, expresses purpose, as in (32).

- (32) Jóola Fóoñi
Sanka-a-y é-jáw-úm-úló-ót bee fu-jamara-a-f ceb.
 mosquito.net-D-clE sI:clE-go-APPL-VEN-NEG ALL SG-rainy.season-D-clF only
 ‘The mosquito net is not only for the rainy season.’
 (Lit. ‘The mosquito net did not come for the rainy season only.’)

3.2.5 Lexicalized applicatives

As already signaled in the previous sections, the applicative form of some Jóola Fóoñi verbs can be analyzed as lexicalized in the sense that, in a construction whose analysis as an applicative construction is uncontroversial, the semantic role expressed by the applied phrase does not lend itself to any generalization. The verb pair *kaan* ‘do, make’ / *káan-úm* ‘be careful with’ illustrates a more opaque case of lexicalization, in which it is even difficult to imagine semantic shifts that might account for the relationship between the meanings expressed synchronically by *kaan* and *káan-úm*.

3.2.6 Non-applicative use of the applicative marker *-úm*

In the presence of manner adverbs such as *buu* ‘how?’ or *moomu* ‘thus’, *-úm* can optionally be added to the verb without triggering any formal change in the construction, and without any change in the denotative meaning. In this particular case, *-úm* does not meet the definition of an applicative marker, since its presence does not correlate with a change in the expression of semantic roles, and seems to just add some emphasis.

Moreover, in this use (and only in this use), *-úm* has an optional variant *-óorúm*. Formally, it is tempting to decompose this variant as *-oor* + *-úm*, but semantically, this decomposition is not very plausible, since otherwise, a formative *-oor* is only attested, either as a middle marker mainly used in reciprocal function, or as the first formative of the complex negative marker *-oor-ut* ‘not yet’, i.e., with meanings which can hardly be related with the expression of emphasis on manner.

- (33) Jóola Fóoñi
Ni-mam-manj bee e-manj buu ∅-káan-(óor)úm-é.
 sI:1SG-want-ASRT ALL INF-know how sI:clD-happen-EMPH-CPL
 ‘I want to know how this happened.’

3.2.7 Summary

Jóola Fóoñi has a productive I-applicative marker, and a very marginal applicative use of the causative marker *-en*, but no B-applicative marker. Leaving apart some isolated cases of verbs whose applicative form occurs in a construction lending itself to no generalization, four productive uses of the I-applicative marker *-úm* can be recognized in Jóola Fóoñi:

- the semantic role of instrument can be encoded, without any verbal marking, by means of the multifunctional preposition *di*, but also in an applicative construction with the instrument phrase in the role of applied object;
- the semantic role of cause can be encoded, without any verbal marking, as a causal adjunct introduced by the preposition *mati* ‘because of’, but also in an applicative construction with the cause phrase in the role of applied object ;
- the expression of the semantic role of perlocative requires an applicative construction in which the applied phrase is an oblique introduced by the multifunctional preposition *di*;
- the expression of the semantic role of mediative also requires an applicative construction in which the applied phrase is an oblique introduced by the multifunctional preposition *di*.

4 Commonalities and differences among Atlantic B-applicatives

4.1 The range of semantic roles expressed by the applied phrase in applicative constructions involving a B-applicative marker

Unsurprisingly, given the cross-linguistic tendencies in the coding of benefactive and closely related semantic roles, the Atlantic applicative markers licensing applied phrases expressing the role of beneficiary *stricto sensu* are also commonly found in applicative constructions in which the applied phrase refers to a variety of roles that can be subsumed under the general notion of orientation of the action, such as addressee, purpose, destination.

In Fula (Arnott 1970: 353–4), the B-applicative marker may license applied phrases expressing not only the roles commonly encoded by means of a B-applicative marker, but also the role of cause, which is more unexpected. Example (34) illustrates the causal use of the Fula B-applicative marker *-an*.

(34) Gombe Fula (Arnott 1970: 354)

’O-maay-an-ii weelo.
 sI:clO-die-APPL-CPL hunger
 ‘He died from hunger.’

We came across no other unambiguous case of a causal use of a B-applicative marker, but example (35) illustrates a use of the B-applicative marker of Seereer which is in fact ambiguous between purpose and cause (in the event to which this example refers, the referent of the subject was in search for money, and this caused his death). One may hypothesize that this is the kind of context in which an applicative marker licensing applied phrases referring to the orientation of the action may acquire a causal use.

(35) Seereer (Renaudier 2012: 177)

A-xon-an-a xaalis.
 sI:3SG-die-APPL-CPL money
 ‘He died for money.’

Wolof attests the possibility of applicative constructions involving a B-applicative marker in which the applied phrase expresses the role of companion (comitative). However, this seems to be rather exceptional among Atlantic languages. Apart from Wolof, the only mention we have found of this possibility is in Cobbinah’s description of Gubêeher, and according to Cobbinah (2013: 258), the B-applicative suffix of Gubêeher *-ur* is used in comitative function with just one verb: *dëëk* ‘go’ > *dëëk-ur* ‘accompany’.

4.2 The syntactic role of the applied phrase in applicative constructions involving B-applicative markers

The data we have gathered include no case of a B-applicative marker involved in an applicative construction with the applied phrase showing evidence of a syntactic role other than object.

4.3 B-applicative markers and the distinction between obligatory and optional applicative constructions

In general, applicative constructions involving B-applicatives markers are obligatory applicatives.¹⁴ Not all descriptions mention this property of B-applicatives explicitly, but the absence of any mention of an adposition having a benefactive use in most descriptions can be viewed as evidence that applicative constructions with an applied phrase in the role of beneficiary are obligatory applicatives. Note however that two sources mention the possible use of a locative preposition to encode beneficiaries in Wolof (see footnote 5), and a benefactive preposition *ure* is found in Jaad.

¹⁴ As already mentioned in § 3.1.2.2, the B-applicative marker of Wolof behaves differently in comitative function, but we came across no other clear case of a comitative use of a B-applicative marker.

Interestingly, the Jóola languages do not have B-applicatives and have an allative preposition, but they do not use this preposition productively in benefactive function, and they do not have a dedicated benefactive preposition either. As mentioned in Section 2.4 for Jóola Fóoñi, in Jóola languages, beneficiaries are standardly encoded as objects that nothing distinguishes from the objects representing the patientive argument of transitive verbs.

4.4 B-applicatives and the notion of valency increase

In Atlantic languages, apart from isolated cases that are best analyzed in terms of lexicalization, B-applicative markers are unambiguously valency-increasing. Multiple-object constructions are very productive in Atlantic languages, and in their productive uses, B-applicative markers license applied objects whose introduction does not affect the expression of participants that may be encoded as objects in the coding frame of the base verb.

4.5 Other valency-related functions of B-applicatives

4.5.1 The applicative-causative co-expression pattern

The suffixes that meet the definition of B-applicative markers are also used as causative markers in languages belonging to the following three groups of Atlantic languages: Wolof (see § 3.1.6), Tenda (Bedik, Bassari), and Cangin (Laalaa, Saafi, Paloor, Ndut). Example (36) illustrates this co-expression pattern in Ndut.

(36) Ndut (Morgan 1996: 111, 28)

- a. *Lah won-e Biram saam-id do gúm.*
have say-IMP Biram find-APPL 2SG calabash
'You must tell Biram to find you a calabash.'
- b. *Fu tēēk-id dī laʔ-a, ...*
sI:2SG sit-CAUS 3SG rock-D
'You sit him on the rock, ...'

In Gubéeher (Nyun), according to Cobbinah (2013: 258), the productive B-applicative suffix *-ur* is found in causative function with just one verb: *jir* 'run' > *jidd-ur* 'conduct a vehicle'.¹⁵

¹⁵ In West-African languages, the verbs glossed 'run' commonly have the wider meaning 'go fast' (which means that, for example, a boat may 'run'), and the causative form of these verbs is commonly used as the equivalent of English 'ride' (a horse or a vehicle).

There are also languages with a B-applicative marker formally similar to a causative marker, but not completely identical. Unfortunately, the available data are not sufficient to discuss the historical significance of such similarities.

Jóola languages do not have productive B-applicatives, but their causative markers also have a very marginal applicative use restricted to verbs referring to bodily excretions (see § 3.2.1 on Jóola Fóoñi). One may wonder whether this might be the vestige of a formerly productive applicative use of the causative markers in question, since it is difficult to imagine a semantic shift from causative to this very particular type of applicative meaning.

4.5.2 The applicative-reciprocal co-expression pattern

This co-expression pattern is attested in Mankanya and Bijogo, whose B-applicative and reciprocal markers are formally identical. Example (37) illustrates this situation in Mankanya.

(37) Mankanya (Gaved 2020: 72)

- a. *Mankañ a-fiŋ-ar u-pi Dama.*
Mankanya sI:clA-kill-APPL SG-goat Dama
‘Mankanya killed a goat for Dama.’
- b. *Ba-ntohi bik-i Bula ba-fiŋ-ar*
PL-elder clBA-GEN Bula sI:clB-kill-RECP
‘The elders of Bula were killing each other.’

In Balant Ganja, the B-applicative marker and the reciprocal marker are formally similar, but nevertheless distinct, at least from a synchronic point of view, and the historical significance of this similarity is unclear.

4.6 Uses of B-applicative markers not related to valency operations

In Wolof, the B-applicative marker in comitative function (and only in comitative function) may depart from the behavior expected from an applicative marker, and behave as a verbal marker highlighting the saliency of an oblique phrase without changing anything in the syntax, at least for some speakers (see § 3.1.2.2). However, the data we have been able to gather include no other case of a construction in which a marker that otherwise meets the definition of a B-applicative marker would not act as a valency-changing operator.

5 Commonalities and differences among Atlantic I-applicatives

5.1 The range of semantic roles expressed by the applied phrase in applicative constructions involving an I-applicative marker

As already illustrated by Wolof and Jóola Fóoñi, in Atlantic languages, the applicative markers licensing applied phrases in instrumental role are commonly also involved in the expression of the following roles: material, means (mediative), source of motion (ablative), or path (perlative). I-applicative markers licensing applied phrases expressing accompaniment are also attested.

Example (38) illustrates the involvement of the I-applicative marker of Fula in the expression of means, source of motion, and path.

(38) Gombe Fula (Arnott 1970: 349)

- a. *Mi 'anndaa no 'o-wurt-or-ii.*
1SG know.NEG how sI:clO-go.out-APPL-CPL
'I don't know how he got out.'
- b. *Ndiyam 'yiw-r-ii fuuna.*
rain come-APPL-CPL east
'The rain came from the east.'
- c. *Naange fud-ir-ay fuuna, mut-ir-ay hiirna.*
sun rise-APPL-CPL east set-APPL-CPL west
'The sun rises in the east, sets in the west.'

According to Renaudier (2012: 190), the I-applicative marker of Seereer is productive in ablative and comitative roles.

In Gubëeher (Nyun), according to Cobbinah (2013: 257), the applied phrase in the construction of *yaax-um* 'eat with' < *yaax* 'eat' may refer not only to the instrument used by the eater (spoon, etc.), but also to the side dish. With *lód-um* < *lód* 'build', the applied phrase refers to the material used for the construction, whereas with *fur-um* < *fur* 'leave', the applied phrase refers to the source of motion.

We saw in § 3.2.2 that the I-applicative marker of Jóola Fóoñi is productively used in causal function. However, in the documentation we have gathered on Atlantic applicatives, the only other unambiguous example of an applicative marker fulfilling a causal function concerns the B-applicative marker of Fula (see example (34) above).

Dieye (2010: 245) mentions a particular use of the I-applicative marker of Laalaa (Cangin) in a special type of causative construction implying that the person acting as the causer is at the same time the beneficiary of the action performed by an unmentioned causee (autobenefaction).

The construction in question is marked by a verbal suffix *-elok* whose addition to transitive verbs does not change anything in the syntax, but carries the following implications: in the presence of *-elok*, the subject is not interpreted as the immediate agent, but rather as a causer, and at the same time as the beneficiary of the event denoted by the verb, whereas the causee must remain implicit (39b). However, as illustrated in (39c), the addition of the I-applicative marker *-oh* (surfacing as *-o* in (39c) for phonological reasons) licenses an additional object phrase interpreted as expressing the role of causee (or immediate agent). This particular use of an I-applicative marker can be analyzed as motivated by the fact that, in the causative construction of transitive verbs, the causee can be viewed as a kind of animate instrument.

(39) Laalaa (Dieye 2010: 231, 245)

- a. *Oomah-c-aa soob-en too-t-aa.*
 child-clC-D pound-PRF millet-clT-D
 ‘The children pounded the millet.’
- b. *Clotilde soob-elok-en too-t-aa.*
 Clotilde pound-CAUS.AUTOB-PRF millet-clT-D
 ‘Clotilde_i had the millet pounded for her_i.’
- c. *Clotilde soob-elok-o-en oomah-c-aa too-t-aa.*
 Clotilde pound-CAUS.AUTOB-APPL-PRF child-clC-D millet-clT-D
 ‘Clotilde_i made the children pound the millet for her_i.’

Several descriptions of Atlantic languages also mention manner and location of the event among the semantic roles that can be expressed by the applied phrase in applicative constructions involving an I-applicative marker. However, a closer look at the examples they provide casts some doubt on this analysis. The problem is that most descriptions do not distinguish manner from means, and the expression of location from other spatial notions such as source or path. As already discussed for Wolof and Jóola Fooñi, once these distinctions are taken into account, it turns out that means, source and path are unquestionably possible semantic roles for the applied phrase in applicative constructions involving an I-applicative marker, whereas one may have doubts about the exact nature of the constructions in which the presence of a verbal marker otherwise analyzable as an I-applicative marker is conditioned by the presence of a phrase expressing manner or location of the event.

5.2 The syntactic role of the applied phrase in applicative constructions involving I-applicative markers

Bijogo illustrates the case of an I-applicative marker whose syntactic behavior, at least with applied phrases in instrumental role, corresponds to what is commonly considered as the prototypical behavior of applicative markers: in Bijogo, instruments may be

encoded as obliques introduced by the instrumental preposition *ta*, or as objects of an applicative verb form, but it is not possible to use the instrumental preposition and the I-applicative marker in the same clause (Segerer 2002: 219). Note incidentally that the formal resemblance between the I-applicative suffix and the instrumental preposition suggests that, historically, the I-applicative suffix may have resulted from encliticization of the instrumental preposition.

(40) Bijogo (Segerer 2002: 219)

- a. *ni-mes ni-dendɔk ta nɔ-ɔgɔ.*
 SG-knife sI:clNV.ICPL-sharpen.MID with SG-stone
 'A knife can be sharpened with a stone.'
- b. *ni-mes ni-dendɔk-at nɔ-ɔgɔ.*
 SG-knife sI:clNV.ICPL-sharpen.MID-APPL SG-stone
 same meaning as (a)

The same synonymy between a non-applicative construction in which the instrument is encoded as a prepositional oblique and an applicative construction in which it is encoded as an object is also observed in Wolof, Jóola Fóoñi (see § 3) and Seereer (Renaudier 2012: 186–188).

However, the syntactic behavior of Atlantic I-applicatives does not always follow this pattern. As already illustrated by Wolof and Jóola Fóoñi, depending on the semantic role expressed by the applied phrase, the same I-applicative marker may occur both in applicative constructions in which the applied phrase can be analyzed as an object, and in applicative constructions in which the applied phrase has an oblique status.

The details of the relationship between the semantic role of the applied phrase and its status as an object or an oblique vary from one language to another, at least to some extent. Not all descriptions provide detailed data on this question, but the general tendency in Atlantic languages seems to be that applied phrases expressing the semantic role of instrument have a strong tendency to take the syntactic status of object, whereas in some other uses of the I-applicative markers, applied phrases encoded as prepositional obliques are more common. However, these are only tendencies, and variation can be observed even with the role of instrument.

For example, in Fula, the expression of the role of instrument requires an applicative construction, in which, however, the instrument may optionally be encoded as noun phrase in object role or as a prepositional oblique.

(41) Gombé Fula (Arnott 1970: 348)

- 'O-haɓɓ-ir-ii. gujjo ('e) boggol.
 sI:clO-tie-APPL-CPL thief with rope
 'He tied the thief with a rope.'

Interestingly, in closely related Laalaa and Noon, the applicative constructions with an applied phrase in the role of instrument behave differently. In Laalaa (Dieye 2010: 245), in the same way as in Wolof, Jóola Fóoñi, Seereer, or Bijogo, the applicative construction with the instrument phrase encoded as a syntactic object is in competition with the coding of the instrument as a prepositional oblique without any specific verbal marking, whereas in Noon, according to Wane (2017: 133), the coding of instruments requires simultaneously the applicative marker *-oh* and the preposition *ně* ‘with’.

(42) Noon (Wane 2017: 133)

Zan ñam-oh haawě ně kutu.

Jean eat-APPL couscous with spoon

‘Jean is eating couscous with a spoon.’

Constructions in which the coding of instruments involves both applicative marking and the use of a preposition are found in two other languages of the Cangin branch: Saafi (Stanton 2011: 49) and Palor (see below).

Example (43b) illustrates the use of prepositional phrases as applied phrases in the ablative use of the Seereer I-applicative marker *-it*. The analysis of this construction as an applicative construction follows from the fact that the source of motion cannot be expressed in the construction of the base verb. However, the applied phrase is obligatorily flagged by a preposition, and its oblique nature is confirmed by the fact that it cannot be indexed on the verb (Renaudier 2012: 183). This is all the more remarkable given that, in the construction of the base verb, the same preposition is optional with phrases denoting destination of motion, as in (43a).

(43) Seereer (Renaudier 2012: 183)

a. *A-ret-a (na) marse.*

sI:3SG-go-CPL PREP market

‘S/he went to the market.’

b. *A-ret-it-a na marse.*

sI:3SG-go-APPL-CPL PREP market

‘S/he left the market.’

5.3 I-applicatives and the distinction between obligatory and optional applicatives

As already illustrated by Wolof and Jóola Fóoñi, in Atlantic languages, there is important variation in the optional or obligatory nature of applicative constructions involving I-applicative markers, and this variation correlates with the semantic role expressed by the applied phrase.

For example, in Seereer, the same I-applicative marker *-it* is obligatory to express the source of motion (43b) but optional to express instrument. By contrast, as already mentioned, there are also Atlantic languages in which the applicative constructions with an applied phrase expressing the role of instrument are obligatory applicatives.

As regards the instrumental use of I-applicative markers, several descriptions mention that applicative constructions involving an I-applicative marker are in principle optional but tend to be preferred, and may even be required, when the instrument is focalized or relativized.

As regards the ablative use of I-applicative markers, it is noteworthy that Atlantic languages do not have ablative adpositions. This implies that phrases expressing the role of source of motion can only be licensed, either by motion verbs that have the ability to assign the role of source, or by applicative derivation, in constructions that, consequently, meet the definition of obligatory applicatives.

5.4 I-applicatives and the notion of valency increase

It follows from the variation observed in the syntactic status of the applied phrase that applicative constructions involving an I-applicative marker do not necessarily imply an increase in valency, in the sense that the number of core syntactic terms in the construction of the applicative verb is not necessarily greater than in the construction of the base verb.

5.5 Other valency-related functions of I-applicatives

In Atlantic languages, markers identical to I-applicative markers may have valency-related functions other than applicative, most commonly (although not exclusively) reciprocal and/or antipassive.

Markers fulfilling a reciprocal function identical to I-applicative markers are attested in Wolof, Noon, Laalaa, and Palor.

Markers fulfilling an antipassive function identical to I-applicative markers are attested in Wolof, Seereer, Noon, Laalaa, and Palor.

A marker identical to the Wolof I-applicative marker *-e* is found not only with reciprocal and antipassive functions, but also with a causative function. However, its productivity as a causative marker is relatively limited in comparison with the causative marker identical to the Wolof B-applicative marker *-al* (see § 3).

5.6 Uses of I-applicative markers not related to valency operations

With I-applicatives (in contrast to B-applicatives), it is relatively common that the same verbal suffix has a valency-changing function in some of its uses, but also has uses involving no apparent change in the expression of semantic roles. Unfortunately, as already mentioned, the data provided by most descriptions are not sufficient to evaluate the exact extent of this phenomenon, even for a relatively well-documented language such as Wolof.

In such cases, it is not always clear whether this is an instance of more or less free variation, or the I-applicative marker fulfills a function not related to valency.

5.6.1 I-applicative markers and focalized location

In Noon, as in Wolof (see § 3.1.3.4), a marker identical to the I-applicative marker *-oh* may co-occur with phrases expressing location, and according to Wane (2017: 132), it then marks focalization of the phrase expressing location, without any change in its coding properties.

(44) Noon (Wane 2017: 132)

- a. *Mě en ngě kaan Lamin.*
1SG be PREP house Lamine
'I am at Lamine's place.'
- b. *Mě en-oh ngě kaan Lamin.*
1SG be-FOC PREP house Lamine
'I am AT LAMINE'S PLACE.'

5.6.2 I-applicative markers and habitual aspect

Closely related Palor and Ndut (which together constitute a sub-branch of the Cangin branch of Atlantic) share a verbal suffix *-aʔ* but show interesting contrasts in its possible functions.

In Palor, *-aʔ* is an I-applicative marker (possibly cognate with the preposition *ʔa* 'with') productively used in an obligatory applicative construction in which the applied phrase is a prepositional phrase expressing the role of instrument, as in (45).

(45) Palor (D'Alton 1987: 144)

- Di ʔool-aʔ-te xar ʔa paaka*
3SG cut.the.throat-APPL-CPL sheep with knife
'He cut the sheep's throat with a knife.'

In Ndut, according to Morgan (1996: 92–95), *-aʔ* shows only vestiges of a formerly productive use as an I-applicative marker. Synchronically, the only uses of *-aʔ* that show some productivity are its use to mark the saliency of a place or time adjunct, and its use as a marker of habitual aspect, as in (46).

- (46) Ndut (Morgan 1987: 144)
Di lom-aʔ too.
 3SG buy-HAB millet
 ‘He buys (habitually) millet.’

5.6.3 I-applicative markers and the expression of manner

In the descriptions of Atlantic languages, the semantic role of manner is often mentioned among the semantic roles expressed by the applied phrase in constructions involving the same verbal suffix as instrumental applicative constructions. However, when detailed data on this use of I-applicative markers are available, they cast doubts about the validity of an applicative analysis of this particular use of verbal suffixes otherwise acting as applicative markers.

For example, in Seereer, according to Renaudier (2012: 183–184), the I-applicative marker *-it* must be present if a manner adjunct is relativized or focalized, but the mere presence of a manner adjunct does not require the use of the applicative form of the verb, which confirms our own observations on Jóola Fóoñi and Wolof.

In fact, the exact nature of the relationship between manner adjuncts and the I-applicative markers in Atlantic languages could only be clarified on the basis of corpus studies, and the only thing we can do here is to leave this question open.

5.7 I-applicative markers and nominalization

The use of the same suffixes, or of very similar suffixes, as applicative markers licensing applied phrases in the role of instrument and as instrument nominalization markers is found in Jóola languages, for example Jóola Fóoñi *-sonten* ‘heal’ > *bú-sóntén-úm* ‘medical treatment’.

The same phenomenon is observed in Fula (Arnott 1970: 251). Moreover, in Fula, the same suffix is also used to derive nouns referring to places dedicated to a particular activity from verbs (as in *loot-ir-de* ‘place for washing (clothes, etc.)’ < *loot-a* ‘wash’).

5.8 A particularity in the expression of the semantic role of instrument in Laalaa

As already mentioned above, Laalaa (Cangin) has an I-applicative marker *-oh* licensing the expression of the semantic role of instrument as an applied object. Interestingly, Laalaa has another verbal suffix, *-ah*, licensing the expression of the semantic role of instrument, but in the syntactic role of SUBJECT, as in (47).

- (47) Laalaa (Dieye 2010: 206)
- | | | |
|---|---------------------|----------------|
| <i>Fetal-aa</i> | <i>ap-ah-an</i> | <i>paloom.</i> |
| gun-D | kill-be.used.to-FUT | antelope |
| 'The gun will be used to kill antelopes.' | | |

In the languages that have both instrumental-applicative and passive constructions (which is the case of Laalaa), such a construction can be expected to involve the combination of an applicative marker licensing an applied object with the semantic role of instrument and a passive marker converting the applied object into the subject of an applicative-passive construction. However, in Laalaa, *-ah* can hardly be decomposed as *-oh* (I-applicative marker) + *-uu* (passive marker). Unfortunately, nothing similar is evoked in the descriptions of the other Atlantic languages (even in the other languages of the Cangin group), and consequently, we have nothing to propose about a possible relationship between the two verbal suffixes of Laalaa involved in the expression of the semantic role of instrument.

6 Conclusion

An interesting particularity of Atlantic languages is that most of them have applicative constructions with applied phrases expressing the roles of beneficiary and instrument, but at the same time, none of the applicative markers attested in Atlantic languages has the ability to license applied phrases expressing the role of beneficiary and applied phrases expressing the role of instrument. In this chapter, we have shown that recurrent contrasts can be observed between the applicative markers of Atlantic languages that have the ability to license applied phrases in benefactive role and those having the ability to license applied phrases in instrumental role:

- Apart from the role of beneficiary, B-applicative markers license almost exclusively applied phrases expressing roles that can be subsumed under the general notion of orientation of the action, whereas I-applicative markers commonly license applied phrases expressing roles such as material, means, source, or path.
- Neither B-applicatives nor I-applicatives show a particular propensity to license applied phrases expressing the role of companion (comitative).

- Applied phrases expressing the role of cause are rarely mentioned in descriptions of Atlantic languages, but the examples we came across involve B-applicative as well as I-applicative markers, depending on the individual languages.
- B-applicative markers license almost exclusively applied phrases in the syntactic role of object, whereas oblique applied phrases are common with I-applicative markers.
- The co-expression pattern in which B-applicative markers are most commonly involved is the applicative-causative co-expression pattern, whereas I-applicative markers are mainly involved in the applicative-reciprocal and applicative-antipassive co-expression patterns.
- It is relatively common for I-applicative markers to be also found in constructions in which they cannot be analyzed as marking a valency-changing operation; this is much less common for B-applicative markers.

Abbreviations

ALL	allative
ANTIP	antipassive
APPL	applicative
ASRT	assertion
AUTOB	autobenefactive
CAUS	causative
CLX	class X, ¹⁶
CPL	completive
CSTR	construct form
D	definite
DEM	demonstrative
DIST	distal
EMPH	emphatic
EP	epenthetic
FOC	focalization
FOC _{O/X}	object or oblique focalization
FOC _S	subject focalization
FOC _V	verb focalization
FUT	future
GEN	genitive
HAB	habitual
I	index
ICPL	incompletive
IMP	imperative

16 “Class” refers to gender-number agreement patterns conventionally designated by capital letters that evoke the phonological forms of agreement markers in the language in question.

INCL	inclusive
INF	infinitive
LOC	locative
MID	middle voice
NEG	negation
NN	number-neutral noun prefix
OBLG	obligative
oI	object index
PL	plural
POSS	possessive
PREP	multifunctional preposition
PRF	perfect
PROG	progressive
PROH	prohibitive
PROX	proximal
PST	past
RECP	reciprocal
REL	relativizer
R/F	marker of verb forms used exclusively in relative clauses or focus constructions
SEQ	sequential
SG	singular
sI	subject index
STAT	stative
VEN	venitive

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23 Nilotic applicatives

Abstract: The Nilotic family divides into three branches. Eastern, Southern, and Western branches have dative applicatives covering roughly BENEFICIARY, RECIPIENT, ADDRESSEE and GOAL. The dative applicative is usually required for benefactive phrases, but in a few languages it can syntactically alternate with prepositional expression. Eastern, Southern and at least one Western Nilotic languages have syntactically optional instrumental/locative applicatives, covering INSTRUMENT, TIME, LOCATION, RESULT, etc. All branches have directionals with a redirective applicative function with verbs that have an <AGENT, GOAL/SOURCE> base argument structure. In Southern Nilotic, the ventive versus the dative applicative have specialized for person of the beneficiary; and in some, the itive marks a nonspecific 3rd person BENEFICIARY, and in at least one other an applied COMITATIVE.

1 Introduction to Nilotic languages

Nilotic languages extend from the southernmost part of Sudan to southern Tanzania. The family divides in three branches (Köhler 1955), sketched in Figures 1 through 3. Western Nilotic (WN) languages (about 22) extend from southernmost Sudan, through South Sudan and Uganda, into the border regions of western Ethiopia, and to northern Tanzania. Eastern Nilotic (EN) languages (about 17) are in South Sudan, its border regions with Ethiopia, and in Uganda, Kenya, and Tanzania; with the notable exception of *Atlasi ya lugha za Tanzania* (Languages of Tanzania Project 2009), most maps fail to show the modern extension of the EN Maa language complex into southern Tanzania. Southern Nilotic (SN) languages (about 16) are found in Uganda, Kenya, and Tanzania, near Mbeya. The approximate number of languages in each branch is from Hammarström et al. Number of speakers per language varies widely, from highly endangered ones like Akie with perhaps under 200 speakers (König, Heine, and Legère 2015: 10), to around a million if, for example, the Maa complex were considered a single language. This chapter draws on selected languages from each major sub-branch of the family, seen in Figures 1–3. Main sub-branches of the three main branches are in bold, further sub-branches are in plain type, and individual languages are in italics.

Barian: *Bari, Kúkú, Mundari*

Teso-Lotuxo-Maa

Teso-Turkana: *Ateso, Turkana*

Lotuxo-Maa: *Lopit, Maa* (including *Maasai*)

Figure 1: Eastern Nilotic (EN): main branches and selected languages.

Kalenjin: *Akie, Nandi, Cherang'any*
Datooga-Omotik: *Barbayaiga, Gisamjanga, Asimjeeg*

Figure 2: Southern Nilotic (SN): main branches and selected languages.

Research on Nilotic varieties varies widely. For some, just word lists exist, while the morphosyntax of others was documented starting in the 19th Century. Work on applicatives is uneven, especially regarding syntax and semantic extensions. For some languages, a few examples demonstrate that applicatives exist though they may be mentioned under various labels, but little more is known. A few WN languages may lack applicatives, insofar as current literature suggests.

Dinka-Nuer

Dinka: *Agar Dinka*
 Nuer-Reel: *Nuer, Reel*

Luo-Burun

Southern Lwoo: *Lango, Kumam, Dholuo, Acholi*
 Northern Lwoo: *Anuak (or Anywa), Pări, Shilluk*
 Mabaan-Jumjum: *Mabaan, Jumjum*
 Burun: *Kurmuk*

Figure 3: Western Nilotic (WN): main branches and selected languages.

Section 2 introduces the morphosyntactic typology of the three main branches relevant to applicative constructions. As there is considerable diversity across the family, the rest of the chapter is organized largely by semantics and probable cognate applicative morphemes: the so-called dative and other forms for BENEFICIARY (with various semantic extensions; Section 3), INSTRUMENT or LOCATION applicatives (with various semantic extensions; Section 4), and the use of directionals in applicative function (Section 5). Section 6 notes a few “applicative look-alike” constructions, and Section 7 addresses non-applicative and lexicalized functions of the applicative morphology. Section 8 summarizes the findings.¹

2 Basic morphosyntactic overview

The morphosyntax of EN and SN languages is typologically similar, while that of WN is quite distinct. Whether this is due to genetic closeness or more intense contact between EN and SN, or to coincidental development is not established.

¹ I mostly regularize glosses of applicative forms and adapt authors' original glosses to Leipzig glossing conventions. I generally retain authors' representation of data.

In all branches, applicatives do not add new clause types to the syntactic inventory, except that four-argument clauses can be created in at least some languages (basic four-argument clauses do not occur). Choice of applicative form does not generally depend on base predicate valence, though some WN languages have distinct directional forms for intransitive versus transitive bases. Each applicative has some degree of polysemy, but none are all-purpose applicatives. That is, none is semantically as broad as the oft-cited Bantu applicative **-id* or Indonesian *-kan*.

2.1 Morphology

SN and EN verbs are broadly agglutinative, but with some fusional features, co-occurrence restrictions, and significant grammatical tone. (For SN, cf., among others, Rottland 1982; Creider and Creider 1989; Mietzner 2016; Griscom 2019; Bruckhaus 2021. For EN, cf., among others, Tucker and Mpaayie 1955; Dimmendaal 1983a; Payne 2015; Barasa 2017; Moodie and Billington 2020.) Verbs have a conjugation class distinction between what are called Class I versus Class II (Rottland 1982; Tucker and Mpaayie 1955; Dimmendaal 1983b). Allomorphy for applicatives and directionals is largely phonological, determined by ATR harmony, tone sandhi, and consonant and vowel deletion due to interaction with other morphemes. Subjects and speech-act objects are indexed on the verb; pronominal 3rd person objects are zero-marked on the verb.

WN verbs carry fewer parsable affixes than EN and SN languages. There is considerable stem variation for derivation and some inflection. Most derivational categories, including applicatives and directionals, involve stem alternations in vowel length, vowel and voice quality; consonant alternation, gemination, and deletion; and/or tone variations. Specific stem forms can interact with verb class, which is usually discussed in terms of the (sometimes abstract) phonological nature of the base stem (Andersen 1988a, 1992–1994; Reh 1996; Noonan 1992: 87–102; Remijsen, Miller-Naudé, and Gilley 2016; among others). More segmentable affixes index core participants, but especially inanimate 3rd person objects may have zero verb indexation.

2.2 Basic syntax

SN and EN languages have mostly predicate-initial clause syntax, though order can depend on discourse and constructional issues. However, Bari (EN; Spagnolo 1933) and arguably Asimjeeg Datooga (SN; Griscom 2019: 269) have basic SVO order. The verb initial languages display marked-nominative tonal case marking on post-verbal NPs (König 2008). In such Nilotic systems, there is a morphologically and/or distributionally marked form for post-verbal transitive and intransitive subjects, but a morphologically and/or distributionally unmarked form for citation, objects, and (most)

pre-verbal subjects.² In contrast, SVO languages do not appear to have marked nominative case patterns.

Some WN languages are described as having SVO basic order, as might be suggested by (1).³

- (1) Dinka (Remijsen, Miller-Naudé, and Gilley 2016: 239)

bòol ǎ-tĩŋ mĩiir
 Bol AGR-see giraffe
 ‘Bol sees the giraffe.’

However, there is significant diversity across WN. Jumjum has intransitive SV but transitive AOV and OVA orders (Andersen 2019). Remijsen, Miller-Naudé, and Gilley (2016: 239) comment that in Dinka, Pāri and Shilluk, subject/agent can occur post-verbally and is then case-marked, but these languages may differ as to the syntactico-pragmatic status of this arrangement. In Dinka, the post-verbal agent case is analyzed as ‘oblique’, as in (2); but in Pāri and Shilluk it has been analyzed as a core ergative, as in (3) (Andersen 1988b; Miller and Gilley 2001; Remijsen, Miller-Naudé, and Gilley 2016).⁴

- (2) Dinka (Remijsen, Miller-Naudé, and Gilley 2016: 239)

acóol ǎ-tĩŋ mĩiir
 Achol AGR-see.NTS giraffe.OBL
 ‘The giraffe sees Achol.’

- (3) Shilluk (Miller and Gilley 2001: 36)

byél á-rākḳ yĩ nān qájò
 grain.PL PST.EVID-grind.TR.REP ERG person female
 ‘The woman ground the durra.’

The core clause structure of some WN languages, including Lango (Noonan 1992: 119), Kurmuk (Andersen 2015) and Agar Dinka (Andersen 2012a), is described as having

² Most Niloticists use *nominative* for the marked case form, but various terms occur for the unmarked case form including *absolute* (Tucker and Bryan 1962, 1964/1965; Toweett 1975; Dimmendaal 1983b; Mietzner 2016; Barasa 2017), *absolute* (Rottland 1982; Dimmendaal 2009; Bruckhaus 2021), *accusative* (Tucker and Mpaayie 1955, Griscom 2019), and *oblique* (Creider and Creider 1989). Departing from all the preceding, Mel’čuk (2006: 266–269) uses *nominative* for the unmarked case form, and *oblique* for the marked one (which other Niloticists call the *nominative*). Here I use *absolute* for the unmarked form (leaving this form unglossed for case), and *nominative* in accord with dominant Nilotic practice.

³ Remijsen, Miller-Naudé, and Gilley (2016) do not indicate the variety of Dinka for this example.

⁴ Remijsen and Ayoker (2018) argue for an alternative “object voice” analysis for the Shilluk construction. While agreeing with Miller and Gilley (2001) that it does not have the informational structure properties of a passive, they argue that the so-called ergative phrase lacks properties of a core argument.

an initial structural “Topic” position. In particular, the Agar Dinka basic declarative clause scheme is (roughly) TOPIC–VERB–SUBJECT–OBJECT; while the Lango basic clause scheme is TOPIC–SUBJECT–VERB–OBJECT(s). Alternative orders of arguments/semantic roles typically require alternative verb forms (cf. the basic versus NTS verb forms in [1] versus [2]).

Nilotic languages have basic intransitive, transitive and ditransitive clause constructions. Simple verb roots correspond to each valence construction type, and derivational processes change valence. Typical valence-reducing morphemes include impersonal and/or passive, middle and/or reflexive, and some have an antipassive. Regarding transitivity of Lango verb stems, Noonan (1992: 87, 123–132) distinguishes transitive, intransitive (“activity naming” or roughly antipassive in sense), and “secondary argument” (roughly anticausative in sense) forms. Valence-increasing constructions include causative and applicative(s). The various applicative constructions appear to behave like basic syntactic constructions (transitive or ditransitive), with the applicative phrase (APPP) usually serving as a direct or primary object.⁵ In some languages, LOCATIVE applied phrases may still carry an adposition, but this is not universal.

3 Dative applicative concepts: BENEFICIARY, RECIPIENT, ADDRESSEE, GOAL, etc.

Nearly all Nilotic languages have what I will call a “dative” applicative. This allows a verb to have a BENEFICIARY/MALEFICIARY, RECIPIENT, ADDRESSEE, GOAL/GOAL-REACHED/SPECIFIC-GOAL participant as a core argument, which the verb would otherwise not have. The general forms (with additional allomorphs) are *-(V)ka(n)* in EN, *-chi(n)/-sii(n)* in SN, and stem modification plus sometimes suffix elements in WN. Andersen (1988a) argues that components of the WN applicative stem modifications are likely cognate with the EN/SN forms (see also Dimmendaal 2009). In SN, the BENEFICIARY function of the dative applicative is partially taken over by other morphemes (Sections 3.2 and 5.2). Some WN languages may be on the verge of developing a new applicative in this functional domain (Section 3.3).⁶

⁵ I use “primary object” in the sense of Dryer (1986). Dimmendaal (2009: 11) calls the Turkana dative APPP a “secondary object”, but does not appear to follow Dryer’s usage.

⁶ Creissels and Voisin (this volume) use “B-applicative” for applicatives that include benefactive but not instrumental function, and “I-applicative” for those that include instrumental but not benefactive function. While this terminology generally fits EN applicative patterns, the term “dative (applicative)” is quite widely used in Nilotic studies for cognates of *-(V)ka(n)* and for some WN verb forms which may be cognate. I retain the term “dative” here for continuity with the existing Nilotic literature and because benefactive functions are not exclusive to cognates of *-(V)ka(n)* in SN.

The dative applicative is usually valence-increasing, creating transitive stems from intransitive roots, and ditransitives from transitives. With derived ditransitives, the added participant does not typically appear to displace a base argument, though this is not well researched and does happen in some languages. For a very few documented transitive roots, the dative derivation is not valence-increasing but affects the semantic reading of the object; that is, the dative can have an argument “re-arranging” function (cf. Lamoureaux 2004 on Maasai). In the clear majority of languages, the dative is obligatory for expressing a BENEFICIARY. In contrast, it is generally syntactically optional for expressing a general GOAL with movement and caused-motion verbs.

3.1 Eastern Nilotic

In EN, the dative has the general shape $-(V)ki(n)$ and is obligatory for a BENEFICIARY and possibly RECIPIENT and ADDRESSEE, but syntactically optional for GOAL. The syntactic status of BENEFICIARY versus base objects is not so well researched across the sub-family, but an applied BENEFICIARY is generally the privileged object (likely due to privileging animate participants).

Spagnolo (1933), Nyombe (1987), and Yokwe (1987: 24–28) describe a Bari suffix *-akin* (with various allomorphs).⁷ Spagnolo describes it as meaning ‘on behalf of’, ‘limited to s.o.’, ‘general motion toward a central place’, etc. We may infer it has a transitivizing effect from sets like those in (4).

- (4) Bari (Spagnolo 1933: 165)

“Long” stem		Dative	
<i>ruma</i>	‘walk fast’	<i>rumakin</i>	‘hasten for s.o. or to some place’
<i>jara</i>	‘be absent’	<i>jarakin</i>	‘delay in some place’
<i>miö</i>	‘be painful’	<i>mikin</i>	‘hurt’

In (5), the THEME *ná* precedes the verb and the APPP follows the verb (in the presumably basic object position). In (6), the THEME follows the verb. Either the base THEME or the applied BENEFICIARY can be pronominal. If 3rd person and known from context, these can be expressed as a null like the BENEFICIARY in (6).

- (5) Bari (Yokwe 1987: 416; my glosses)

Pòní ná mòk-ákin Jàdà
 Poni DEM.FSG hold-DAT Jada
 ‘Poni is holding it for Jada.’

⁷ Spagnolo parses the first vowel as part of the “long form” of the preceding stem.

- (6) Bari (Yokwe 1987: 478; my glosses)
Pòní à dér-á-kín súkùrì
 Poni PST cook-LINK-DAT chicken
 ‘Poni cooked chicken for him.’

Example (7) suggests that some adpositions might still co-occur with some added participants since both ‘1SG’ and ‘leg’ appear to be in adpositional phrases with the dative stem; but this needs investigation (Dimmendaal 2009: 13).

- (7) Bari (EN; Spagnolo 1933: 165; my glosses based on Spagnolo)
mejeke mi~mikin kôyô i mokot
 guinea.worm ASP~hurt.DAT to.me in leg
 ‘The guinea-worm hurts me in the leg.’

Kukú is mutually intelligible with Bari. Cohen (2000: 9, 54–56) documents an applicative *-akn/-ikin* (the latter is a +ATR allomorph). This is said to indicate “ditransitivity” and BENEFICIARY, and it is lexicalized in some stems (e.g., ‘arrive’, ‘support’). There is little information on valence or syntactic effects of the Kukú dative, but Cohen (2000: 124–125) gives examples with base and dative forms of ‘give’. The applicative stem *tikín* ‘give to’ can occur with a pronoun RECIPIENT immediately after the verb, which is the normal position for base pronoun objects. (Applied examples with a lexical RECIPIENT are missing.) Contrariwise, an example with the non-applicative stem *tín* ‘give’ has the order Subject–Verb–THEME–RECIPIENT when all arguments are lexical. (Examples are missing with *tín* and pronoun RECIPIENTS.)

Dimmendaal (2009: 1–10) provides a detailed account of the Turkana dative applicative. It creates transitives from intransitive bases (like ‘be angry with’ from ‘be angry’), and ditransitives from transitive bases. In (8) with a transitive root, for instance, the applied BENEFICIARY is indexed on the verb by *kà*, showing that 1SG is an object (also expressed here by a free unmarked-case pronoun).⁸

- (8) Turkana (Dimmendaal 2009: 2)
kà-inǝk-ak(i) Desì ayǝŋ akim(i)
 3>1-light-DAT 3SG.NOM 1SG fire
 ‘S/he has lighted a fire for me.’

In a second construction, the Turkana dative can add a locative APPP. In (9), the dative is absent and the locative is preceded by the preposition *à*. In (10), the dative occurs and the preposition disappears. In both, the LOCATION is marked for locative case by *na-*.

⁸ Dimmendaal (2009) calls the unmarked Turkana case “absolute”, which has wider distribution in the grammar. This does not pattern as absolute in the sense of an ergative/absolute system.

According to Dimmendaal (2009: 6–7), the prepositional construction introduces new or contrastive information, while the dative construction tracks already-established information.

- (9) Turkana (Dimmendaal 2009: 4)

k-ibòy-è-te à na-wuy(è) kɛc(i)
 SUBS-stay-ASP-PL PREP LOC.F-home their
 ‘and they stayed at their homestead’

- (10) Turkana (Dimmendaal 2009: 4)

k-ibò-ikìn-o-s(i) nà-wuy(è) kɛc(i)
 SUBS-stay-DAT-MID-PL LOC.F-homestead their
 ‘and they stayed in their homestead’

Example (11) shows similar facts with a transitive root. As with *mɔk* ‘light’ in (8), the dative yields a three-argument clause from the transitive root *irɛp* ‘insert, put’. But unlike (8) which has a benefactive interpretation, (11) has one of its non-nominative arguments in a locative case.

- (11) Turkana (Dimmendaal 2009: 3)

k-irɛp-ak(i) ɲimòyò kɛɲ na-ki’
 SUBS-put-DAT fingers 3SG.POSS LOC.PL-ears
 ‘S/he has put his/her fingers in his/her ears.’

In a third construction type and contrary to (10), a locative phrase sometimes still carries a preposition with the dative verb derivation, as in (12). Note, however, that the locative in (12) is a *SOURCE*, rather than a ‘place-at-which’ or *GOAL*; also, adpositional *SOURCE* phrases do not always require co-occurrence of the dative verb suffix. Whether (12) should be considered an applicative construction merits further study.

- (12) Turkana (Dimmendaal 2009: 5)

èlàk-àkìn-rt ɲikurùdoi à na-kítòk
 3.release-DAT-ASP foam PREP LOC.F-mouth
 ‘S/he released foam from the mouth.’ (i.e., s/he was in a convulsion)

Fourthly in Turkana, the dative can yield *COMITATIVE* meaning in combination with the preposition *kà*; compare (13) and (14).

- (13) Turkana (Dimmendaal 2009: 6)

è-bùn-it-ò kà nakwèè
 3-come-ASP-PL PREP Nakwee
 ‘They are coming together with Nakwee.’

- (14) Turkana (Dimmendaal 2009: 6)

j-imɔrm-àkin-o-ì ɲitùrkwanà kà ɲitɔpɔsa
 NEG-3.MIX-DAT-MID-PL Turkana.NOM PREP Toposa
 ‘The Turkana do not associate/mix with Toposa people.’

In Lopit, dative applicative and prepositional forms can alternate for expressing BENEFICIARY and GOAL (Moodie and Billington 2020: 190–191). Further, the Lopit dative may co-occur with a prepositional GOAL in something like ‘I hid the cow in the mountains’. In such instances, the authors speculate that the dative may be lexicalized as part of the verb stem and is not valence-increasing, though interestingly they also state that a location must be expressed when the dative relates to a GOAL (p. 192).

In Ateso (Barasa 2017: 186–188), the dative occurs for BENEFICIARY as in (15), RECIPIENT (even with the verb ‘give’) as in (16), or ADDRESSEE as in (17). It also occurs with the verb ‘meet’ to express the party met, which we may consider a GOAL-REACHED, as in (18). But there is a difference in how the APPP is treated depending on semantic role. An applied BENEFICIARY, RECIPIENT or ADDRESSEE occurs in the unmarked absolute case immediately after a lexical subject (if any) and before the THEME. The GOAL of ‘meet’ occurs in a prepositional phrase despite the applicative on the verb.⁹

- (15) Ateso (Barasa 2017: 187)

é-tjàk-àkin è-múrwòk àkàtòlà
 3SG-cut.PST-DAT M-doctors sugarcane
 ‘S/he cut (divided) sugarcane for the (traditional) doctors.’

- (16) Ateso (Barasa 2017: 186)

é-in-àkin-ì èmúsgòt Pétérò àpàkí
 3SG-give.PST-DAT-IPFV butcher.NOM Petero permission
 ‘The butcher gave Petero permission.’

- (17) Ateso (Barasa 2017: 186)

é-sòm-ak-ìt jájá ébàrwàit
 3SG-read-DAT-PFV aunt letter
 ‘S/he read the letters to (the) aunt.’

⁹ Barasa (2017: 170) describes a tonal locative case which can occur after the preposition *k=*. He does not indicate what case occurs on ‘chief’ in (18) but it is tonally different from the apparent absolute case form *èjákaìt*.

- (18) Ateso (Barasa 2017: 188)

ŋàibó kí=rjàm-àkìn-ò-s(i) k=éjàkàit
 who PREP=2SG-meet.PST-DAT-REC-PL PREP=chief
 ‘Who met the chief?’

For Maasai, Lamoureux (2004) quite comprehensively treats the morphosyntax and semantics of applicative constructions (see Andrason and Karani 2019 on the argument status of dative APPPs in Arusa Maa). If the dative is added to a transitive root, the APPP patterns as the primary object and tends to immediately follow the verb (but this may be due to animacy features of a BENEFICIARY more than the effect of the applicative; cf. Payne 2022a). 1st and 2nd person objects (base or applied) are indexed by verb prefixes. Example (19) shows this and also demonstrates the possible GOAL(-REACHED) semantics of the Maa dative. This is a complex example. The dative APPP is “raised” to be the object of an otherwise intransitive verb ‘go.PL’ (marked by the “inverse” prefix *kí-* which expresses 3/1PL>2SG or 2>1SG; Payne, Hamaya and Jacobs 1994), even though the applicative is on the infinitive verb ‘take’.

- (19) Maasai

K-á-yīēū ní-kí-púó-puo áa-y-akí il=pídílá tɛ síaŋau
 CN2-1SG-want CN-INV-go.PL-go.PL INF.PL-take-DAT MPL=fleas OBL calabash.NOM
 ‘I want you (PL) to go and bring me fleas in a calabash.’ (arinkoi.006)

The Maasai dative can create four-argument clauses, as in (20). *Prík* ‘put’ is a three-argument root; the dative adds a BENEFICIARY, indexed by the verb prefix.

- (20) Maasai (fieldnotes)

áa-prík-akí ɔl=mórraní enk=áré e=motí
 3>1SG-put-DAT MSG=warrior.NOM FSG=water FSG=pot
 ‘The warrior will put water into the pot on my behalf.’

The Maasai dative can also have a valence-neutral redirective applicative function with <AGENT PATH> translational motion verbs. Compare (21)–(22), which together show that the dative derives an <AGENT GOAL-REACHED> stem.

- (21) Maasai (adapted from Lamoureux 2004: 58)

ɛ-íd ɔl=páyian o=sóit
 3-jump.over MSG=man.NOM MSG=rock
 ‘The man will jump (over) the rock.’

- (22) Maasai (adapted from Lamoureaux 2004: 58)

ε-íd-ákɪ *ɔl=páyian* *o=sóít*
 3-jump.over-DAT MSG=man.NOM MSG=rock
 ‘The man will jump on (top of) the rock.’

For Arusa Maa, Andrason and Karani (2019: 183) show a GOAL AppLP preceded by a relational noun ‘inside’.¹⁰ Additional non-applicative functions of the Maa dative are mentioned in Section 7.

3.2 Southern Nilotic

Both SN sub-branches have an applicative which appears to be cognate with the EN dative.¹¹ As we will see, SN languages use the dative or a ventive directional for BENEFICIARY depending on person of the BENEFICIARY.

3.2.1 Kalenjin varieties

The Akie dative is *-ci(n)/-in(i)* (among other allomorphs; *c* represents a palatal consonant; König, Heine, and Legère 2015: 21). Examples show this can express BENEFICIARY or GOAL.

- (23) Akie (König, Heine, and Legère 2015: 56)

ki-rá *ál-ci* *láákweε* *amtr*
 1PL-PFV buy-DAT.PFV child.ACC food.ACC
 ‘We have bought food for the child.’

- (24) Akie (König, Heine, and Legère 2015: 56)

a *ηútt-ini* *ηóllεε*
 1SG spit-DAT saliva.ACC
 ‘I spit (at him).’ [for blessing]

¹⁰ Andrason and Karani claim that ‘inside’ is a preposition, but it varies for case like a relational noun. Another dative example which they claim shows a prepositional GOAL could instead be analyzed as ‘Father will send mother the boy at home’, where ‘mother’ (which doesn’t carry a preposition) is the GOAL AppLP.

¹¹ It is called “dative”, “terminative”, “allative” or just “applicative” by SN scholars. Bruckhaus (2021: 122) hypothesizes that it derives from *sii* ‘somebody’ in G/B Datooga, though he also says it “corresponds to” the “goal marking suffix **-k(In)*” (p. 50).

In Nandi, the dative expresses applied RECIPIENT, ADDRESSEE, GOAL, BENEFICIARY, and MALEFICIARY as in (25), and REASON (Creider and Creider 1989; Creider 2002).¹²

(25) Nandi (Creider 2002: 174)

ka-rér-cí ce:ka cesí:lú:t
 PST1-be.scarce-DAT milk Jesilut (woman's name)
 'The milk has run out on Jesilut.'

Creider and Creider (1989: 90) state that the Nandi dative is restricted to 3rd person objects. However, (26) with a 2nd person ADDRESSEE shows this apparently does not always hold; (27) shows the same root 'say' without the dative.

(26) Nandi (Creider 2002: 174)

ká:-lé:n-cí:n íb-ú: kikô:mpé:t
 PST1.1SG-say-DAT bring-VEN cup
 'I said to you to bring the cup.'

(27) Nandi (Creider 2002: 174)

ké:-le nè:
 PST1.2SG-say what
 'What did you say?'

Interpretation of the semantic role of the APPP depends on verb semantics (e.g., ADDRESSEE with 'say' as just seen) and on features of the APPP such as animacy. Compare constructionally identical (28)–(29), the first with BENEFICIARY and the second with GOAL(-REACHED) readings.

(28) Nandi (Creider 2002: 175)

itú:-cí kwe:ník ce:pe:t
 put.down-DAT firewood Jebet
 'S/he is putting the firewood down for Jebet.'

(29) Nandi (Creider 2002: 175)

ki:-tu:-cí kwe:ník ngecerê:t
 INF-put.down-DAT firewood chair
 'to set the firewood on the chair'

¹² The Nandi data do not represent ATR contrasts. The colon represents a long vowel. Creider (2002: 172) states there are three degrees of past tense. I assume his "past 1" (PST1) is closest to the temporal point of reference.

The Nandi dative is lexicalized with some verbs including ‘give’ (Section 7). However, it increases valence when structurally optional.

In Cherang’any, the dative is used for 3rd person GOAL and BENEFICIARY APPP objects (which Mietzner 2016: 134 calls “indirect” objects), as in (30). In contrast, 1st and 2nd person applied BENEFICIARIES involve directionals (Section 5.2).

- (30) Cherang’any (Mietzner 2016: 134)

á-tèèk-cíní síkík-cùù kò
 1SG-build-DAT parents-PSR.SG+PSM3PL house
 ‘I am building a house for my parents.’

3.2.2 Datooga varieties

Within the Datooga SN sub-branch, Barbayiiga and Gisamjanga (B/G) are very closely related, over against Asimjeeg Datooga (Griscom 2019).¹³ As in Cherang’any, there is generally a person-based split for benefactive applicatives: dative and sometimes itive cognates are used for 3rd person BENEFICIARY APPPs, while the ventive directional is used for 1st and 2nd person (Section 5.2). Syntactically, the dative increases valence in all Datooga varieties.

For B/G Datooga, dative *-s/-sii* adds a BENEFICIARY, RECIPIENT or concrete or fictive SPECIFIC GOAL that is not the current deictic center (Bruckhaus 2021: 117, 122); a moving entity may or may not actually arrive at the GOAL. This is seen in (31)–(33) for 3rd and 2nd person GOALS of movement verbs.

- (31) B/G Datooga (Bruckhaus 2021: 122)

béegà gá-gúl-s-á bàsôoda
 water 3SBJ-flow-DAT-IS lake
 ‘The water flows to the lake.’

- (32) B/G Datooga (Bruckhaus 2021: 122)

gá-wèe-s-à
 3SBJ-go-DAT-IS
 ‘S/he goes to her/him.’

¹³ For B/G Datooga, the dative and *-an* applicatives (Section 4.3.2) may co-occur (Bruckhaus (2021). For Asimjeeg Datooga, there may be limits on their co-occurrence, and *-an* can occur with directionals (Griscom 2019: 240).

- (33) B/G Datooga (Bruckhaus 2021: 122)

gá-bíik-s-èey

3SBJ-return-DAT-2SG.OBJ

'He returns to you (SG).'

For most verbs, however, the dative is not used for 1st or 2nd person, as the contrasts in (34)–(35) demonstrate for GOAL, and in (36)–(39) for BENEFICIARY.¹⁴

- (34) B/G Datooga (Bruckhaus 2021: 68)

ní-bàlàg-ù míiyèndè-ènù

3.PRFX-shift-VEN sickness-SG.POSS.1SG

'My sickness has returned hither/to me.'

- (35) B/G Datooga (Bruckhaus 2021: 68)

nì-bálák-s-á géeskà-sci

3.PRFX-shift-DAT-IS coughing-PL.POSS.3SG

'His coughing has returned to him.'

- (36) B/G Datooga (Bruckhaus 2021: 117)

gwá-lák-n-èen

3-cut-VEN-1SG.OBJ

'S/he is cutting for me.'

- (37) B/G Datooga (Bruckhaus 2021: 117)

gwá-lák-n-éeyi

3-cut-VEN-2SG.OBJ

'S/he is cutting for you (SG).'

- (38) B/G Datooga (Bruckhaus 2021: 117)

gwá-lák-s-à

3-cut-DAT-IS

'S/he is cutting for her/him.'

- (39) B/G Datooga (Bruckhaus 2021: 124)

sí-sí gá-gées-s-à bétrò bēega

person-PROX 3SBJ-fetch-DAT-IS Peter water

'This person is fetching water for Peter.'

¹⁴ It is not clear whether valence has increased in (34) given the lack of an object suffix on the verb. However, (34) is informative in its contrast with (35).

In addition to 3rd person BENEFICIARY, the dative can add a LOCATION as in (40)–(41).¹⁵

- (40) B/G Datooga (Bruckhaus 2021: 124)

gòò-réer-s-à Héeydòm
 3SBJ-feed-DAT-IS Haydom
 ‘S/he is feeding at Haydom.’

- (41) B/G Datooga (Bruckhaus 2021: 124)

gá-kèek-íi-s-á qòòh
 3SBJ-vomit-PLRC-DAT-IS home
 ‘S/he always vomits at home.’

Some dative stems are restricted to ANIMATE GOALS; others must co-occur with *héedà* ‘place’ + animate noun for an animate GOAL. Kießling (2007: 132) notes sense-extension of the dative ACROSS RECIPIENT and BENEFICIARY in instances like ‘He gave out the meat to the youth’. He further finds that with verbs which lexically have a RECIPIENT role in their basic predicate frame, the dative “adds an idea of finality and introduces a cause or a purpose” (p. 134). He illustrates with *maar* ‘give a present (cattle) to someone in acknowledgement of a heroic deed’ which, in its underived form, “already assigns the recipient to the object role”. In (42), the dative stem *maars* adds the meaning ‘for a special purpose’ (‘finality’ is not particularly evident here).

- (42) B/G Datooga (Kießling 2007: 134)

gíi-màars-ínàa
 SBJ2.SG-donate.DAT-what
 ‘What do you give a hero’s present to him for?’

Griscom (2019: 125–126, 237) summarizes functions of the Asimjeeg Datooga dative *-s(V:n) ~ -s(a) ~ s(i)* as adding 3rd person GOAL in a macro-sense. More specifically, the added argument can be an ENDPOINT as seen by comparing (43)–(44); BENEFICIARY as in (45); occasionally LOCATION as seen by comparing (46)–(47); and some ADDRESSEES as in (48)–(49).¹⁶

- (43) Asimjeeg Datooga (Griscom 2019: 238)

àní:n g-ò-tfág-n-à:n gífin
 1SG AFF-3-send-VEN-1SG Gishina
 ‘Gishina sent me.’

¹⁵ Bruckhaus (2021: 124) also suggests the dative (his “allative”) can indicate PURPOSE, but perhaps only in combination with the question word ‘what’.

¹⁶ Griscom (2019: 126) reads as if it can also add an INSTRUMENT, but no examples support this. In (48), the double colon represents extra length, and (.) represents a pause.

- (44) Asimjeeg Datooga (Griscom 2019: 238)
 Ø-wún má:ŋòl g-ì-dà-tfäg-sí:n-e:ŋ
 2SG-come Mang'ola AFF-FUT-1SG-send-DAT-2SG
 'Come, I'm sending you to Mang'ola.'
- (45) Asimjeeg Datooga (Griscom 2019: 240)
 g-à:-rà-m-s mùh-ó:g áb qùwàrí
 AFF-1SG-fetch-DAT calf-PL¹⁷ PREP home
 'I fetched (water) for the calves at home.'
- (46) Asimjeeg Datooga (Griscom 2019: 239)
 q-à:-dà-j sí:-d sí-bàr
 AFF-1SG-see-FS person-SG IMPERS-hit
 'I saw a person get beaten (killed).'
- (47) Asimjeeg Datooga (Griscom 2019: 239)
 m-à-nún dá-jjŋ àsim-džànd sí-bár-s džérk^w-è:d
 NEG-3-let 1SG-hear asimjeeg-SG IMPERS-hit-DAT field-SG
 'I've never heard of an Asimjeeg person being beaten in the field.'
- (48) Asimjeeg Datooga (Griscom 2019: 240)
 há i:dú: (.) g-à-gùr-s bòn-é:d áb màdž-ò:d
 well later AFF-3-call-DAT people-SG PREP magic-SG
 'Later he called people by using magic. . '
- (49) Asimjeeg Datooga (Griscom 2019: 107)
 í:s g-è:-rùg-s sí:-d ŋáf-ánd
 often AFF-IMPERS-tell-DAT person-SG word-SG
 'Often a person is told something. . '

Unlike varieties which use the ventive for speech-act ADDRESSE, in Asimjeeg Datooga the dative sometimes is used (Griscom 2019: 237, 259) as in (50). However, the ventive still generally occurs for this (see Section 6.3).¹⁸

¹⁷ SN nouns have complex number affixation, which Griscom (2019) thoroughly parses. As the number system does not bear on issues addressed here, I collapse multiple number affixes into one parsed element and gloss it simply as SG or PL.

¹⁸ Griscom speculates on whether the dative versus ventive could be lexicalized with different roots, or perhaps reflects an aspectual feature.

- (50) Asimjeeg Datooga (Griscom 2019: 237)
g-à-gùr-sí:n-á:n sì:-d qàh-áp
 AFF-3-call-DAT-1SG person-SG home-1SG.POSS
 ‘...and a person from home called me..’

In addition to using the ventive for 1st and 2nd person BENEFICIARY and ADDRESSEE, Datooga varieties have an applicative *-an* which seems to have some association with 1st and 2nd person ADDRESSES and GOALS (Section 4.3.2).

3.3 Western Nilotic

The morphological interactions of derivational categories (e.g., benefactive/dative, directionals, voice) are relatively well-studied for some WN languages (Andersen 1988a; Andersen 1992–1994; Reh 1996; Remijsen, Miller-Naudé, and Gilley 2016; and others). Languages in all WN sub-branches have applicative verb stems that include expression of BENEFICIARY/GOAL (our broad dative category). As noted in Section 2.1, WN verb derivation is largely achieved by stem-internal changes; but some languages have a ‘benefactive’ suffix *-i* co-occurring with stem changes and Jumjum has a dative suffix *-k/-g*. I treat the WN applicative category that includes functions of the EN/SN dative here, as they are similar in semantics and valence effects. Further, Andersen (1988a: 106–110) reconstructs a pre-Päri dative suffix **-ȲC* (where *Ȳ* is a +ATR vowel and *C* is a stop). He suggests it goes back to Proto-WN, and that this and the EN/SN forms may reconstruct to a single source.

The following pair shows the valence-increasing effect of the Agar Dinka dative. Observe the differences in tone and voice quality of the verb stem vowel.¹⁹

- (51) Agar Dinka (Andersen 1992–1994: 9)
ḍḍḍḍk ḍ-mīit wḗḗ
 boy DECL-pull cow
 ‘The boy is pulling the cow.’
- (52) Agar Dinka (Andersen 1992–1994: 9)
ḍḍḍḍk ḍ-mīit wḗḗ mōc
 boy DECL-pull.DAT cow man
 ‘The boy is pulling the cow for the man.’

¹⁹ Andersen (1992–1994) calls this the “benefactive” derivation; for some other WN languages the presumably cognate derivation is just called “applicative”, and for others “dative”. Under-dots mark a breathy vowel and a tilde under a vowel marks creaky voice.

Cien et al.'s (2016: 124, 215) pedagogically-oriented grammar of Reel states that an “applicative” verb can add a LOCATION, DIRECTION, RECIPIENT (for ‘give’), or BENEFICIARY participant. Verb classes can affect form of the applicative stem, and some applicative forms may be homophonous with non-derived transitive stems.²⁰ The applicative increases valence, as in (53)–(54).

- (53) Reel (Cien et al. 2016: 124)

nuěěr liŋ gat
 person listen.INCOMPL child
 ‘Person is listening to child.’

- (54) Reel (Cien et al. 2016: 124)

nuěěr liŋ gat ruěth
 person listen.INCOMPL.DAT child chief
 ‘Person is listening to child for chief.’

Examples (55)–(56) demonstrate the transitivizing effect of the applicative with an intransitive root. The citation form of ‘well’ is *kath*, while *kaath* means ‘in well’ (Cien et al. 2016: 41). Thus, the applicative stem appears to license a LOCATIVE role but in a locative case. The locative case form of a noun is distinct from the prepositions *kě* for GOAL/DIRECTION and *ke* for ACCOMPANIMENT, INSTRUMENT, TIME, GOAL/DIRECTION (Cien et al. 2016: 60).

- (55) Reel (Cien et al. 2016: 124)

nuěěr pen
 person fall.INCOMPL
 ‘Person is falling.’

- (56) Reel (Cien et al. 2016: 124)

nuěěr peen kaath
 person fall.INCOMPL.DAT well.LOC
 ‘Person is falling in well.’

The following pair demonstrates the locative case with a transitive root.

²⁰ Cien et al. do not write tone, but it is possible it changes (cf. Reid 2010: 28–29). Diereses mark breathy vowels.

- (57) Reel (Cien et al. 2016: 73)

juii *ε* *Ayak*
 saw 3 Lion
 ‘He saw Lion.’

- (58) Reel (Cien et al. 2016: 41)

kue *Ayak* *juic* *kaath*
 then.3 Lion saw.DAT well.LOC
 ‘Then he saw Lion in well.’

Reid (2019: 99, 169) briefly describes the Nuer “applicative” derivation, with vowel features varying by verb class and finiteness. This derivation adds various semantic roles including BENEFICIARY/MALEFICIARY and RECIPIENT, as follows.²¹

- (59) Nuer (Reid 2019: 119)

uʒ̥aaaʉ-ǵ
 push(TR)-1SG
 (free translation not provided; presumably ‘I push it.’)

- (60) Nuer (Reid 2019: 99)

uʌ́n *uʒ̥ouʉ-ǵ* *rāaan* *Bóool*
 1SG push(TR).DAT-1SG person Bool
 ‘I am pushing Bool for the person.’

- (61) Nuer (Reid 2019: 99)

jén *lǎt-é* *twéé* *eʔwǝi* *j-d-ǵ*
 3SG work(TR).DAT-3SG spell head LOC-POSS.SG-1SG
 ‘S/he is putting a spell on me’.

- (62) Nuer (Reid 2019: 73)

múʋʋj-ǵ
 give(TR)-1SG
 (free translation not provided; presumably ‘I give sth./it.’)

²¹ Crazzolara (1933: 112–129) uses “applicative” for certain Nuer forms which are “transitive verbs when actually used transitively, i.e., when followed by a direct object” (p. 112). (I am grateful to a reviewer who notes that Tucker and Bryan 1966: 424 similarly use “applicative” simply to designate transitive action “applied to a specific Object”.) Crazzolara’s translations do not indicate benefactive or recipient semantics. In sum, his “applicative” verb forms are likely not applicative in the sense used in this volume.

- (63) Nuer (Reid 2019: 99)

uḷín mǝḵḵj-í rāaan dwḵḵḵr
 1SG give(TR).DAT-1SG person thing
 ‘I am giving a thing to the person.’

In Reel, Cien et al. (2016: 40) call *muḵḵc* ‘give’ an applicative verb and show it with three participants in (64). Elsewhere the apparently identical form is called a “derived transitive” and sometimes has just an overt RECIPIENT (p. 85) or just an overt THEME (p. 39); it is conceivable that both RECIPIENT and THEME could be zero if known from context. The evidence is inconclusive as to whether Reel ‘give’ is a lexicalized applicative stem or productively adds the dative.

- (64) Reel (Cien et al. 2016: 197)

yen yǎ yīn kuī gaatku muḵḵc yēm mē kel
 it if you.SG then.you.SG 2SG.children give.DAT leg that one
 ‘... if you can give your children one leg, ...’

In Lango (Southern Lwoo), “benefactive stems” (also malefactive) can be derived from verbs with an agentive subject. I retain Noonan’s gloss BEN(efactive) here, since he does not comment on any broader meanings. Compare:

- (65) Lango (Noonan 1992: 120)

dákô òtèdò rìḵó
 woman 3SG.cook.PFV meat
 ‘The woman cooked the meat.’

- (66) Lango (Noonan 1992: 120)

dákô òtèddì lócà rìḵó
 woman 3SG.cook.BEN.PFV man meat
 ‘The woman cooked the meat for the man.’

The benefactive stem geminates the second consonant of the base verb root/stem. A suffix *-ì* occurs when there is an NP or 3rd person singular non-human independent pronoun BENEFICIARY; otherwise, “the appropriate [direct object] pronoun suffix is substituted” (Noonan 1992: 136). For example, (67) and (68) are formed from *lego* ‘to pray’ (intransitive) and *lèggò* ‘to pray to’ (transitive).

- (67) Lango (Noonan 1992: 136)

òlèggá
 3SG.pray.INTR.BEN.PFV.1SG
 ‘He prayed for me.’

- (68) Lango (Noonan 1992: 136)
 òlèggá òbáŋá
 3SG.pray.TR.BEN.PFV.1SG God
 ‘He prayed to God for me.’

With a benefactive applicative stem, only the applied argument can be indexed as object on the verb, as in (69). A 3rd person human THEME-object can pronominalize with the applicative stem only if it is the sentence TOPIC in preverbal position. Apparently, 1st and 2nd persons simply cannot be THEMES with benefactive stems (Noonan 1992: 122, 141).

- (69) Lango (Noonan 1992: 121)
 lócà òmìyě bòtá
 man 3SG.give.BEN.PFV.3SG to.1SG
 ‘The man gave it to me for him.’

In Anywa (Northern Lwoo), a BENEFICIARY may be expressed in a dative applicative construction or in a prepositional phrase (Reh 1996: 229–230). With the applicative derivation, the BENEFICIARY occurs in the privileged object position and the base PATIENT cannot remain in the clause.

In Shilluk from the same sub-branch, an applicative stem is apparently required to express a BENEFICIARY and RECIPIENT, as in (70). The applicative stem is marked by a combination of affixal, tone and stem-internal changes, and varies by verb class and tense/aspect (Remijsen, Miller-Naudé, and Gilley 2016: 225–227). The past tense applicative template is described as **á-CŨ_[+ATR]C-ì** for most verbs. The *-I* suffix also occurs for the future in this derivation, while the perfect and imperfective have different suffix elements.

The Shilluk dative derivation allows both a RECIPIENT and THEME to remain in the clause. Argument order is partly affected by tense/aspect. In a basic transitive clause, the PATIENT/THEME precedes the verb, as in (70a). However, in imperfective aspect an applied BENEFICIARY/RECIPIENT follows the verb (p. 227); in other tense/aspects it can follow or precede the verb, as in (70b).

- (70) Shilluk (Remijsen, Miller-Naudé, and Gilley 2016: 225)
- a. *jám-ání* *kàa* *rúm* *gé* *jòoot-ò* *ìr* *jáa*
 things-previous.mention when finish 3PL find-NMLZ ERG 1SG
 ‘When I had found those things’
 - b. *jáa* *á-tòot-ì* *tóŋ*
 1SG PST-hand-DAT spear
 ‘they handed me a spear’

In Jumjum (Southern Burun), the dative applicative uses the suffix *-k/-g* (Andersen 2018; 2019: 179). The order facts are reminiscent of those for Shilluk non-imperfective clauses (Andersen does not comment on any tense/aspect order issues). In the basic transitive clause in (71), the PATIENT object is before the verb. With the dative applicative in (72), the BENEFICIARY precedes the verb while the PATIENT follows it in the position of demoted PATIENTS in antipassive clauses.

- (71) Jumjum (Andersen 2019: 179)

ʔɔɔn ʔʌn báŋ-ŋ-é ʔimòk
man house plaster-PST-3SG>3 yesterday
'The man plastered the house yesterday.'

- (72) Jumjum (Andersen 2019: 179)

kíilgà báabà báŋ-k-éŋ-é ʔʌn
Kiilga Baaba plaster-DAT-IPFV-3SG>3 house
'Kiilga is plastering a house for Baaba.'

Finally, Dimmendaal (2009: 16) states that Dholuo (Luo) (Southern Lwoo branch) appears to have lost the dative morphological alternation, perhaps due to loosing gemination and thus neutralizing the type of difference seen in Lango. However, data from Tucker (1994: 347–348) suggests that Dholuo may be poised to develop a new benefactive/goal applicative from a cliticized preposition *ni*. This is evident when the APPP is pronominal. Example (73) has a BENEFICIARY in a prepositional phrase; (74) has the same verb root with pronominal BENEFICIARY, phonologically attached to the verb. In (75)–(76), the variable order of what I gloss 'DAT.3PL' and just '3PL' suggests the clitic nature of these elements.

- (73) Dholuo (Tucker 1994: 348; my glossing)²²

o-bíró kélo bél ní món
3PRF-come bring millet PREP:for women
'He has come to bring millet to the women.'

- (74) Dholuo (Tucker 1994: 348; my glossing)

o-bíró kélo-nígí bél
3PRF-has.come bring-DAT.3PL millet
'He has come to bring them millet.'

²² I have omitted Tucker's raised dot after certain vowels as it doesn't appear to represent a phonemic or morphemic element.

- (75) Dholuo (Tucker 1994: 348; my glossing)

o-bíró tédo-gí-nígí
 3PRF-come cook-3PL-DAT.3PL
 ‘He has come to cook them for them.’

- (76) Dholuo (Tucker 1994: 348; my glossing)

o-bíró tédo-nígí-gí
 3PRF-come cook-DAT.3PL-3PL
 ‘He has come to cook them for them.’

In the next section, we turn to applicatives which express INSTRUMENT, LOCATIVE, and other non-dative meanings.

4 Instrument and locative applicatives

Whether an instrumental applicative can be reconstructed for Proto-Nilotic is presently unclear.²³ EN verb suffixes or suffix-complexes *-ri*, *-re*, *-are/-ore*, and *-ie(k)* are characterized as expressing INSTRUMENT, with semantic extensions to LOCATION, TIME, REASON, COMITATIVE (and CAUSE), depending on the language and form. SN *-ε:(w)*, *-è*, *-èèn*, *-èyyà*, *-èèyyèn*, and *-an* forms have been called INSTRUMENT and LOCATIVE, also with various semantic extensions. Instrumental applicatives are syntactically optional in EN and SN, alternating with oblique expressions. In WN, an instrumental/locative applicative, separate from the stem variations described for benefactive/recipient (Section 3.3), is documented for Shilluk; otherwise, the WN literature is silent on instrument/locative applicatives.

4.1 Eastern Nilotic instrumentals

Information on a Barian instrument applicative is somewhat conflicting. Spagnolo’s (1933) examples said to contain one are often also described as “passive” (I suspect these might be middle forms fused with an instrumental or combined with an impersonal or even a subjunctive morpheme like *-i*).²⁴ For Bari, Yokwe (1987: 58–60) mentions an instrumental suffix *-ri*, but does not address its function or morphosyntax beyond the label “instrumental”; he notes it can co-occur with the dative suffix. Spagnolo (1933)

²³ Dimmendaal (1981: 69) proposed that **-E* ‘instrumental’ was a common Nilotic heritage. Subsequent work has not, to my knowledge, furthered this idea.

²⁴ Spagnolo (1933: 149–150) does not write tone, which might help clarify the morphological categories present in a verb.

says the Bari instrumental can convert an intransitive into a transitive such that the semantic instrument loses its preposition *ko* ‘with’. Compare the forms in (77).

- (77) Bari (Spagnolo 1933: 169–170)
- | | |
|---------------------------|---|
| “Long” stem form | “Transitive” form |
| <i>rɔma</i> ‘make salute’ | <i>rɔmari</i> ‘salute with, use for saluting’ |
| <i>lyōŋō</i> ‘be joyful’ | <i>lyōŋōri</i> ‘rejoice in/for, delight in/by means of’ |
| <i>doto</i> ‘sleep’ | <i>dotori</i> ‘use for sleeping, sleep with/in’ |

In (78), *-ri* would appear to increase valence by adding an INSTRUMENT. The INSTRUMENT is in the subject grammatical role due to what is called the “passive” in Yokwe’s treatment (but I suspect *-á* could be a middle suffix).²⁵

- (78) Bari (Yokwe 1987: 480; my parsing and glosses based on Yokwe’s description)
- | | | | |
|--------------|----------|--------------------|---------------|
| <i>mú’dâ</i> | <i>à</i> | <i>dér-á-rî</i> | <i>àmbàtà</i> |
| pot | PST | cook-PASS/LINK-INS | bread |
- ‘The pot was used for cooking bread.’

For the closely related Kuku variety of Bari, Cohen (2000: 56–58) rejects that apparent cognate(s) of Spagnolo’s “instrumental” have an INSTRUMENT function. He suggests they are aspectual forms or derive subordinate adverbial clauses (e.g., with temporal ‘when’ meaning).

The differences between Spagnolo/Yokwe’s and Cohen’s analyses are reminiscent of Dimmendaal’s treatments of Turkana. Dimmendaal (1981: 64) presents examples with *-ia* and *-are/-ore* glossed as “instrumental”. But the same examples have revised parsing and glossing in Dimmendaal (1983: 189–192) where *-ia* is parsed into two elements, *-i* “aspect” and *-a/o* “voice”, and the combination is considered a type of subjunctive marking. *-Rè/-rî* is then called an “instrumental (subjunctive)”, and is discussed under the heading of subjunctive mood. The examples provided do not show clear evidence that these forms function like applicative(s).

Despite Dimmendaal’s (1983) revised analysis for Turkana, Barasa (2017: 129) asserts that for closely related Ateso, *-ia/-io* increases valence by adding an INSTRUMENT (e.g., from ‘pour’ to ‘pour with [sth.]’). The instrumental applicative can follow the dative to doubly increase valence (pp. 142–143). The INSTRUMENT APPP carries ‘instrumental’ tone, a reduced preposition *k=*, and linearly follows the base object, all seen in (79).²⁶ Whether *-ia/-io* increases valence when the preposition is retained needs research.

²⁵ Cohen (2000: 9) presents a Bari suffix *-a* that he simply glosses as “applicative” without further explanation.

²⁶ *Ka* has senses of ‘GENITIVE’, ‘with/INSTRUMENT’, ‘LOCATION’, ‘COMITATIVE’, ‘and/ADDITION’ (Barasa 2017: 106). Tone on the following noun sometimes helps distinguish among these functions (pp. 164–173).

-*Ia/-io* can occur without a lexical INSTRUMENT phrase if the referent is understood from context.

- (79) Ateso (Barasa 2021: 173)

à-tùb-iò émàèmbèt k=èkílèŋ
 3-cut.PST-INS mango PREP=knife.INS
 ‘S/he was cutting the mango with a knife.’

For Maa (Maasai), Tucker and Mpaayei (1955: 157) discuss a morpheme complex -*are/-ore* which they say describes “neuter [middle –DP] action by means of a specific instrument, or directed to a specific person or place”. Historically, -*ε/-e* would appear to be a valence-increasing element added to the middle -*a(r)/-o(r)* (which also expresses reflexive/reciprocal). Compare the argument structures of *εl* ‘smear’ in (80) with an oblique INSTRUMENT, versus *εl-are* ‘smear self with’ in (81) where the INSTRUMENT is the grammatical object.

- (80) Maasai (fieldnotes)

ε-gírá-í áa-εl εn=kéráí tε ɪlatá
 3-PROG-IMPERS INF.PL-smear FSG=child OBL oil.NOM
 ‘The child is being smeared by/with oil.’

- (81) Maasai (fieldnotes)

ε-gíra εn=kéráí kítí a-εl-aré εn=kapianá
 3-PROG FSG=child.NOM small.NOM INF.SG-smear-MID.INS FSG=milk.fat
 ‘The little child is smearing herself with milk fat.’

In non-middle morphological contexts, Maa uses the instrumental applicative -*ie(k)*, as in (82). This is distinct from the /*ε/~/e/* element in -*are/-ore* in having consistent +ATR behavior, and it has a final /*k/*.²⁷ -*Ie(k)* can add arguments with roles of INSTRUMENT, MEANS, COMITATIVE, REASON, SOURCE, OR LOCATION.

- (82) Maasai

e-te-yiaŋ-ak-í ol=kítéŋ o-el-íék-i
 CVB3-PF-slaughter-PF-IMPERS MSG=bovine MSG.REL-smear-INS-IMPERS
ɔ-sínya
 MSG.REL-be.perfect
 ‘when a perfect ox for smearing him with [its fat] has been slaughtered’
 (enkeeya.017)

²⁷ I know of no suffixes following -*are/-ore*, which makes it difficult to test for old consonants after /*ε/~/e/*.

There is no difference in syntactic status between base objects and applied instruments with *-ie(k)*. Speech-act objects (base or applied) are indexed on the verb, but if the APPP is human, it is typically interpreted as a CAUSEE.²⁸ In (83), the INSTRUMENT ‘cups’ follows the subject and is before the THEME ‘tea’, but this order can vary (Payne 2022a).

- (83) Maasai
m-e-ok-íé oshî ol=porrór l=áŋ in=kikompení sháai
 NEG-3-drink-INS always MSG=age.set.NOM MPL=OUR.NOM FPL=cups tea
 ‘Our age-set never drinks tea using cups.’ (enkang-enkai 1.112)

-Ie(k) can combine with three-argument stems to create four-argument clauses. Compare (84a–b) with the root *ɸɪk* ‘put’. In (84b) the APPP ‘that ox’ is fronted before the applicative verb, while the two just-established 3rd person objects ‘bracelets’ and ‘his sons’ are definite nulls.

- (84) Maasai
 a. *amô é-ídíp-á apá ɔl=páyian*
 because 3-finish-PF before MSG=elder.NOM
a-tɪ-ɸík-a il=ayîôk l=enyénak il=kataarri
 INF.SG-PF-put-PF MPL=boys M=3SG.PSR+PL.PSM MPL=matal.bracelets
 ‘because the man had already put bracelets on his sons’
 b. *amô ílô kítén náají apá e-ɸík-íék-i*
 because that.M bovine possibly before 3-put-INS-IMPERS
 ‘because that could be the ox he uses to put them
 [bracelets] on them [the sons]’ (enkeeya.038a–b)

The base object of transitive *la(k)* ‘untie, pay’ can be a debt/item paid for, as in (85), or the means used to pay with, as in (86). In (87), the instrumental plus dative applicatives on *la(k)* create a four-argument clause.

- (85) Maasai
amô ε-tá-lá-á e=síle
 because 3-PF-pay-PF FSG=debt
 ‘because they have paid the (marriage) debt’ (enkiamama.043)

²⁸ With Maa Class II verb stems, *-ie(k)* is the only way to create a morphological causative. Class I verb stems take a prefixal causative (Tucker and Mpaayei 1955).

(86) Maasai

tá-la-a *ε=lúkónyá* *é=n=kítén*

IMP.SG-pay-SBJV FSG=head FSG.PSR=FSG=bovine

‘You pay the head of the cow.’ [to compensate a forgiven homicide] (iloikop.052)

Given that *la(k)* has two base senses, ‘pay price’ and ‘pay debt’, it is not entirely clear in (87b) whether *-ie(k)* licenses adding the debt ‘school (fees)’ versus ‘money’ (expressed as a definite null). Regardless, the double applicative clause has four participants: ‘I’ as AGENT=subject, ‘child’ as BENEFICIARY=dative applied object, ‘money’ as a definite null INSTRUMENT object, and ‘school (fees)’ as the overt DEBT object.

(87) Maasai

a. *néākō* *én-chó=kr* *náají* *ɪ=ropiyianí* *é=síl* ...

so PL.SBJV-give=1SG.OBJ possibly FPL=money of=debt

‘so possibly give me some money as a loan ...’

b. *m-a-ta-la-ákín-yíé* *en=kéráí* *sukúul*

PROSP-1SG-SBJV-pay-DAT-INS FSG=child school

‘so that I may pay school (fees) with it for the child’ (ilomon.0099)

Similar to Maa which has an instrumental form with *r* after a middle but *-ie(k)* elsewhere, Lopit has two instrumental applicatives: *-rɪ* and *-ije* (*j* is a palatal glide; Moodie and Billington 2020: 194–195). *-Ije* can also express RESULT and habituality.

4.2 Southern Nilotic instrumental/locative applicatives

Various SN verb suffixes have been glossed as ‘locative’ and ‘instrument’. Whether these are all etymologically related (or are allomorphs), or whether any are cognate with the EN *-(r)ɪ/(r)ε* forms or with Maa *-ié(k)*, has not been determined.

4.2.1 Kalenjin

Nandi has an applicative *-e:* which Creider (2002: 176, 186) states is etymologically related to a semantically broad preposition *e:ng* (p. 179). The suffix adds an argument with roles of INSTRUMENT (including ‘means’ and ‘amount’); LOCATION (including static locations like ‘in, on, around’, as well as motion-related ‘path’, ‘source’, ‘goal’ – but not ‘clear endpoint’); WITH RESPECT TO; and REASON.²⁹ Compare (88)–(89) and (90)–(91).

²⁹ Creider includes “benefactive” as a function of *-e:*. The example with *-e:* that he identifies as benefactive might be ‘The child feels sympathy for the calf’ (p. 178); but ‘calf’ could be considered STIMULUS. The Nandi dative expresses prototypical BENEFICIARY.

- (88) Nandi (Creider 2002: 176)

ká:-wí:r *sê:sé:t*

PST1+1SG-throw dog

'I threw at / hit the dog.'

- (89) Nandi (Creider 2002: 176)

ká:-wí:r-ê: *ké:tít* *sê:sé:t*

PST1+1SG-throw-INS stick dog

'I threw a stick at the dog / I hit the dog with a stick.'

- (90) Nandi (Creider 2002: 178)

ke:-et *pé:k*

INF-refuse water

'to refuse water'

- (91) Nandi (Creider 2002: 178)

ke:-et-e: *pé:k*

INF-refuse-INS water

'to refuse water to (s.o.)'

Akie has what König, Heine, and Legère (2015: 53–54) simply call an “applicative”. It has four forms (plus ATR variations) depending on interaction with aspect/mode, person, and number: *-ê*, *-èèn*, *-èyyà*, *-èèyyèn*. It can add a typically inanimate LOCATIVE or INSTRUMENT. The following pair shows prepositional and applied paraphrases for INSTRUMENT.

- (92) Akie (König, Heine, and Legère 2015: 54)

i *llúú-e* *nen* *rúнку* *láákwεε*

2SG beat-IPFV LOC club.ACC child.ACC

'You are hitting the child with the club.'

- (93) Akie (König, Heine, and Legère 2015: 53)

i *llúú-eyyen* *rúнку* *láákwεε*

2SG beat-APPL club.ACC child.ACC

'You are hitting the child with the club.'

4.2.2 Datooga

Discussions of Datooga instrument/location applicatives mention forms ending in /n/ and /w/. It is not currently clear whether there are two etymologically separate ‘instrument/locative’ applicatives in this sub-branch or just one.

For G/B Datooga, Bruckhaus (2021: 129) introduces *-a(n)/-aaw* as a single applicative and describes the distribution as morphologically conditioned: “While *-an* surfaces in combination with simplex forms and ventive stems, the variant *-aaw* occurs on itive stems. The mid-low-vowel form of the allomorph *-aaw* is the *-ATR* variant, and the fronted reflex *-εεw* surfaces on *+ATR* verbs”. The *-an* form may co-occur with the dative (p. 123). He relates at least the *-an* element to Rottland’s (1982: 125, 184) discussion of a Kalenjin *-εε(n)* instrumental and Omotik *-een*, and notes that Rottland reconstructs **-a* for Proto-SN.

The semantic role added by *-an/-aaw* can be INSTRUMENT, MEANS, SOURCE, SITE, or inanimate CONCOMITANT. The intricate relationship between the added semantic role and other elements is discussed as follows:

The role of the peripheral argument introduced by *-an* depends in particular on the lexical semantics of the verbal root, on the semantics of the added noun, and on the presence of a directional suffix on the verb. The site-introducing function of *-an* is confined to non-motion verbs and a few stationary movement verbs. Source-indication occurs only in combination with itive and ventive stems. . . . (Bruckhaus 2021: 127)

Examples (94)–(95) contrast an oblique and applied INSTRUMENT; (96) shows an inanimate CONCOMITANT. Animates must be expressed with the oblique preposition *sée* ‘with’ (p. 128).

- (94) B/G Datooga (Bruckhaus 2021: 145)
qɔɔ-ŋwáal àbà màttíngòodà
 3SBJ-stir with cooking.stick
 ‘S/he is stirring with a cooking stick.’

- (95) B/G Datooga (Bruckhaus 2021: 145)
góo-ŋòol-á màttíngòodà
 3SBJ-stir.PLRC-APPL cooking.stick
 ‘S/he always stirs with a cooking stick.’

- (96) B/G Datooga (Bruckhaus 2021: 128)
qá-fwáj-á ñùtta
 3SBJ-run.away-APPL spear
 ‘S/he runs away with a spear.’

For Gisamjanga Datooga, Kießling (2007: 135–136) also describes the use of *-an* for INSTRUMENT (including what I would call MEANS), LOCATIVE, and ABLATIVE applied arguments. Interestingly, *-an* seems to interact with person of the object in some complex situations. First, roots like *rukt* ‘tell sth., foretell, give away information/a secret’ can combine with the itive to suppress the base GOAL and allow the THEME to be the object (Section 5). The simple itive stem is used for a 3rd person PATIENT/THEME object. To have a 1st or 2nd

person PATIENT object, *-an* must be added to the itive stem. Kießling presents (97)–(98) to support these claims.³⁰

- (97) G Datooga (Kießling 2007: 135; partially my glossing)
qáyí rúkt-à jèdà
 long.ago tell.ITV-IS moon.NOM
 ‘(Finally, a small thing killed him) as had been foretold long ago by the moon.’
- (98) G Datooga (Kießling 2007: 135; partially my glossing)
àd-ù-rúktàn-àan
 NEG.SBJV-SBJ2.SG-tell.ITV.APPL-1SG.OBJ
 ‘Don’t sell me out!’ / ‘Don’t tell anything about me!’

Unlike Brookhouse who treats *-an* and *-aaw* as allomorphs, Griscom (2019: 236) treats these as distinct morphemes in Asimjeeg Datooga. He characterizes *-an* as a semantically somewhat opaque ‘oblique’ applicative (OBL.APPL) for APPP objects of any person (p. 126, 240–241), mostly with roles of TIME and LOCATION. According to Griscom, in (99) it adds a TIME argument; (100) has the same itive form of ‘send’ without *-an* and with an adverbial ‘often’ rather than a specific time expression.³¹

- (99) Asimjeeg Datooga (Griscom 2019: 126)
g-^wà-jéf àní:n g^wátf g-ò-tfág-d-án-à:n g^wàláp-ànd
 AFF-3-say 1SG that.time AFF-3-send-ITV-OBL.APPL-1SG elder-SG
 ‘He said that me, at that time, the elder sent me.’
- (100) Asimjeeg Datooga (Griscom 2019: 105, 128)
nìp ní:s g-ó-tfág-d sí:-d
 3SG often AFF-3-send-ITV person-SG
 ‘Often he (would) send someone (away).’

Griscom states that *-an* may occur in negative copular clauses, as in (101); but note that here also it correlates with roles of LOCATION or TIME.

³⁰ He further states that verbs with a GOAL in their basic predicate frame can use *-an* to highlight a specific 3rd person PATIENT (p. 136); however, the argumentation is cursory.

³¹ Griscom (2019) has examples of other verbs with *g^wátf* and without an applicative. Whether *-an* licenses ‘that time’ in (95), as opposed to just highlighting it, needs study.

- (101) Asimjeeg Datooga (Griscom 2019: 119)

nàf-ò:d máf:n hídz m-ànd-án dàràb-è:t
 grind-NMLZ machine LOC.DEM NEG-3-COP-OBL.APPL wilderness-SG
 ‘There was no grinding with a machine in the wilderness at that time.’
 (Lit. ‘No grinding machine there / that time (in) the wilderness.’)

Asimjeeg uses *-an* with a 1st or 2nd person GOAL (fictive or literal) or ADDRESSEE, contrasting with the dative for 3rd persons for this function. Compare (102)–(104), which carry *-an*, with (48)–(49) above.³²

- (102) Asimjeeg Datooga (Griscom 2019: 230)

g-è:-nàl-nál-à:d-àn-é:s-àj sí-nàg-d-í:n
 AFF-IMPERS-teach-teach-AM.ITV-OBL.APPL-2PL-PLRC 2PL-meet-ITV-DAT
 ‘We were taught (again and again) when we met (them).’

- (103) Asimjeeg Datooga (Griscom 2019: 279)

q-à-ηùl-àn-a:n qàη-d-éη
 AFF-3-see-OBL.APPL-1SG eye-SG-1SG.POSS
 ‘They will look at me in my eye.’

- (104) Asimjeeg Datooga (Griscom 2019: 271)

q-á-ηùl-àn-è:η qàη-d háw díjá
 AFF-3-see-OBL.APPL-2SG.OBJ eye-SG big a.lot
 ‘They look at you with bad eyes.’

In contrast to *-an*, Asimjeeg Datooga *-e:(w)/-ε:(w)* is used for APPP objects with roles of LOCATION as with *fúl* ‘school’ in (105); MANNER (106); and animate and inanimate ACCOMPANIMENT (107)–(108). Griscom states that this form also can add an INSTRUMENT, but he presents no examples of this (Griscom 201: 241–242). Here I retain Griscom’s gloss of LOC for *-e:(w)/-ε:(w)*.

- (105) Asimjeeg Datooga (Griscom 2019: 127)

q-à:-sòm-é:w fúl èd mánó!á
 AFF-3-study-LOC.APPL school PREP Mang’ola
 ‘I studied at the school in Mang’ola.’

³² Regarding ADDRESSEE, also recall Griscom’s comments about (50) above. The ventive is used for 1st or 2nd and the dative for 3rd person BENEFICIARY.

- (106) Asimjeeg Datooga (Griscom 2019: 242)
g-é:-sín-é: fúqár-è:d
 AFF-IMPERS-do-LOC.APPL cunning-SG
 ‘It was created with skill/cunning.’
- (107) Asimjeeg Datooga (Griscom 2019: 242)
Ø-jád-é:w múfódà-k múf-k
 2SG-send-LOC.APPL bag-PL skin-PL
 ‘(You) send them with animal skin bags.’
- (108) Asimjeeg Datooga (Griscom 2019: 242)
g-^wá-líl-é:w ásimdʒ-é:g
 AFF-3-sleep-LOC.APPL asimjeeg-PL
 ‘They sleep with the Asimjeeg.’

There is sketchy information relevant to possible EN cognates of the SN *-an* applicative. For the Barian variety Mundari, Lutwori et al. (2013: 110) briefly note a suffix *-an/-än/-on* ‘for the sake of someone/for some reason’. The discussion and examples are hard to parse and free translations are sometimes approximate. Nevertheless, brief examples like *bo'de* ‘stop’ versus *bobo'dan* ‘stop for the sake of [an elephant in the road]’ (p. 175) are suggestive.³³

4.3 Western Nilotic

The literature on most WN languages is silent about applicatives with instrumental function, suggesting such may not exist. In Shilluk, however, a syntactically optional valence-increasing applicative verb stem adds INSTRUMENT, ACCOMPANIMENT and LOCATION. Remijsen, Miller-Naudé, and Gilley (2016: 222) and Remijsen and Ayoker (2018) detail stem-internal variations according to verb class, showing that applicative forms expressing these meanings are different from those that cover dative applicative meanings (Section 3.3) For example, (110) contains an instrumental applicative form of ‘eat’, but the dative stem for ‘eat’ is short-voweled *cam* (p. 225). Syntactically, the Shilluk INSTRUMENT AppP precedes the verb, displacing the PATIENT object that normally occurs there. Compare (109)–(110).

³³ The Turkana verb suffixes *-een* (for dynamic verbs) and *-aan/-oon* (for statives) express habitual, iterative, or protracted-in-time aspect (Dimmendaal 1983: 107). Maa *-an* derives abstract nouns from stative verbs. These are not applicative in nature, despite phonological similarity to SN *-an*.

- (109) Shilluk (Remijsen, Miller-Naudé, and Gilley 2016: 222)

kwān á-cām kí pāl
 porridge PST-eat PREP spoon
 ‘Somebody ate the porridge with a spoon.’

- (110) Shilluk (Remijsen, Miller-Naudé, and Gilley 2016: 222)

pāl á-cāam kwān
 spoon PST-eat.INS porridge
 ‘Somebody ate the porridge with a spoon.’

The instrumental stem can also indicate ACCOMPANIMENT, TIME and LOCATION. Though the verb stem is the same, a LOCATIVE AppP requires a focus particle; compare (111)–(112) with (109)–(110).

- (111) Shilluk (Remijsen, Miller-Naudé, and Gilley 2016: 222)

kwān á-cām kì kāl
 porridge PST-eat PREP cattle.camp
 ‘Somebody ate porridge in the cattle camp.’

- (112) Shilluk (Remijsen, Miller-Naudé, and Gilley 2016: 223)

kāl-à á-cāam kwān
 cattle.camp-FOC PST-eat.INS porridge
 ‘The cattle camp is where somebody ate the porridge.’

In WN Luo, a verbal enclitic =*gô*/=*gódô* expresses ‘with it’. As a clitic, this arguably should not be considered an applicative.

- (113) Luo (Tucker 1994: 348; my clitic indication)

ó-dwá tedo-ná=gó(dó) kuon
 3IPFV-want cook-DAT.1SG=INS.3 mush
 ‘She wants to cook mush for me with it.’

5 Directionals as applicatives

Nilotic languages have itive and ventive directionals. These have a “redirecting” (Kiyosawa 2006) applicative function (usually without increasing valence), but only with a restricted set of verbs. In particular, this happens with transitive verbs having a base <AGENT SOURCE/GOAL> argument frame. A directional derives an <AGENT THEME> stem. Any GOAL or SOURCE then occurs in an oblique phrase. Payne (2022b) presents a cross-Nilotic study of this phenomenon and argues it can be explained by an earlier

associated motion function of the directionals which perform profiles a moving THEME. In SN, the directionals have additional valence-related applicative functions and extend into marking BENEFICIARY.

The directionals almost certainly reconstruct to Proto-Nilotic (Reh 1996: 261). The Proto-Nilotic ventive likely had a high vowel plus nasal. The Proto-EN and Proto-SN itive likely had a coronal consonant plus low vowel. The Proto-WN itive possibly had a breathy vowel and final-consonant allomorphs. Payne (2021: 704) summarizes various reconstructions.

5.1 Eastern Nilotic

All EN languages have a ventive containing the sequence /un/ or /un/ (plus allomorphs). Spagnolo (1933: 146) describes the Bari itive as *-rVʔ*, Turkana has *-arɿ*, Ateso has *-Vr(ɿ)*, Lopit has an itive containing /rɿ/ (segmentally like one of its instrumental applicative forms) plus other variants, and the Maa itive is *-áa* but with allomorphs that include *r*. Not all sources give sufficient examples to show the redirecting applicative function (e.g., Lutwori et al. 2013: 106–110 for Mundari; Moodie and Billington 2020 for Lopit), but I expect this function exists throughout EN. The following from Maa with an <AGENT SOURCE> root are representative.

- (114) Maasai (fieldnotes)

á-púrr ol=dúka
1SG-rob MSG=shop
'I (will) rob the shop.'

- (115) Maasai (fieldnotes)

n-é-purr-óo ol=áyíóní il=mósorr
CN-3-rob-ITV MSG=boy.NOM MPL=eggs
'The boy stole / will steal eggs.'

- (116) Maasai (fieldnotes)

á-púrr-ú enk=alámu tɔ l=dúkâ
1SG-rob-VEN FSG=pen OBL MSG=shop.NOM
'I (will) steal a pen from the market.'

Examples (117)–(118) demonstrate the redirecting function with the <AGENT GOAL> root *naŋ* 'hit by throwing at'. In (117c), the subject is 3rd person, and the definite null object of *naŋ* is the anaphoric GOAL 'house', mentioned in (117a–b). What hits the house is not expressed or anaphorically understood. The house is clearly not the item thrown.

(117) Maasai

- a. *n-é-jo á-nyík-áki enk=áŋ*
 CN-3-try INF.SG.SBJV-approach-DAT FSG=home
 ‘He (a warrior) tried to approach to the home.’
- b. *n-é-íŋat-áa*
 CN-3-withdraw-ITV
 ‘and it [a magical house] withdrew’
- c. *n-é-naŋ*
 CN-3-throw.at
 ‘He (the warrior) hit it (the house, by throwing).’ (enamuke2.0049)

In contrast to (117c), the itive occurs on *naŋ* in (118). Now the syntactic object is the THEME which undergoes movement.

(118) Maasai

- í-wa taá enâ kerái shómɔ tá-naŋ-á-í*
 2-take.SBJV EMPH this.F child go.SBJV IMP.SG-throw.at-ITV-SBJV
 ‘Take this child and go throw it [the child] away.’ (kitejine.040)

5.2 Southern Nilotic

SN languages have ventive forms with /n/ and itives with a coronal stop. The same redirective applicative function occurs with the same verb root types. However, the directionals have additional applicative functions not so far attested for directionals in other Nilotic branches.

5.2.1 Kalenjin

Directionals can derive <AGENT THEME> verbs from <AGENT SOURCE/GOAL> verbs in both SN sub-branches. In (119) from Nandi, *sè:sé:t* ‘dog’ is the base GOAL object of the action. Given the lexical meaning of *wi:r* ‘throw at’, it is implicit that something is thrown but this is not expressed with the simple root. In (120) with the itive, *koytà* ‘stone’ is the THEME object that undergoes movement; now the GOAL is suppressed.

(119) Nandi (Creider 2002: 184)

- ke:-wi:r sè:sé:t*
 INF-throw.at dog
 ‘to throw at the dog’

- (120) Nandi (Creider 2002: 184)

ke:-wi:r-tá koytà
 INF-throw.at-ITV stone
 ‘to throw the stone thither’

Beyond the redirecting applicative function, Creider (2002: 172) documents use of the Nandi itive *-ta* for an applied CO-THEME COMITATIVE (never CO-AGENT); compare (121) and (122).

- (121) Nandi (Creider 2002: 172)

am kímýé:t
 eat polenta
 ‘Eat polenta!’

- (122) Nandi (Creider 2002: 172)

ke:-am-ta kímýé:t ínkwê:k
 INF-eat-ITV polenta vegetables
 ‘to eat polenta with vegetables’

A major applicative use of the SN ventive is for speech-act BENEFICIARY/GOAL. This is illustrated by the Cherang’any examples in (123)–(124) (Mietzner 2016: 129–135). Cherang’any indexes 1st and 2nd person objects by suffixes. Thus, applied BENEFICIARY objects are marked by a complex involving the ventive plus an object suffix (which Mietzner calls an “indirect object” but apparently due to the semantics of BENEFICIARY/GOAL). In contrast, 3rd person BENEFICIARY objects are expressed by the dative applicative without person indexation (Mietzner 2016: 106–111, 134; cf. Section 3.2).

- (123) Cherang’any (Mietzner 2016: 111)

kwɔŋ-wééc cebióse-ŋu kɔ̀sɔ̀sɔ̀lɪŋ
 3.cook-VEN.1PL wife-PSR.SG:PSM1SG evening.LOC
 ‘In the evening my wife cooks food for us.’
 (Lit. ‘My wife cooks toward us in the evening.’)

- (124) Cherang’any (Mietzner 2016: 111)

à-wek-uúŋ kóngoi
 1SG-return-VEN.2SG thanks
 ‘I will thank you.’

5.2.2 Datooga

Kießling (2007: 136–137) describes partially similar redirecting facts for the Gisamjanga Datooga itive with verbs that he says allow both a PATIENT and a GOAL in their predicate frame. The itive suppresses the GOAL, leaving just the PATIENT.³⁴ Bruckhaus (2021: 67) mentions that the itive removes the GOAL from the <AGENT GOAL (THEME)> argument structure of *daw* ‘give’ (presumably he places THEME in parentheses because it is implicit in the non-itive form).

Similarly to Cherang’any, the Gisamjanga Datooga ventive is obligatory for 1st and 2nd person BENEFICIARY/GOAL, while the dative occurs for 3rd person (Kießling 2007: 134, 138). However, Bruckhaus (2001) notes that the itive can at least sometimes occur for 3rd person GOAL/BENEFICIARY, in paradigmatic opposition with both the ventive and dative. For instance, with the verb *qaw* ‘milk’ in (125), the ventive stem *gaw-un* expresses a 1st or 2nd person BENEFICIARY, the itive stem *qaw-d* indicates the action is done for a nonspecific 3rd person BENEFICIARY, and the dative stem *gaw-s* marks a specific 3rd person BENEFICIARY. The final suffixes in (125b–e) index person and number of the applied object.

(125) B/G Datooga (Bruckhaus 2021: 165)

a.	<i>qá-qàw</i>	‘s/he is milking’	simplex
b.	<i>qá-qàw-d-à</i>	‘s/he is milking for another person’	ITV
c.	<i>gá-gàw-n-èey</i>	‘s/he is milking for you (SG)’	VEN
d.	<i>gá-gàw-n-éesà</i>	‘s/he is milking for us’	VEN
e.	<i>gá-gàw-s-à</i>	‘s/he is milking for her/him’	DAT

For Asimjeeg Datooga, directionals can modify the verb meaning and/or increase valence by adding a new object (Griscom 2019: 225). Examples (126)–(127) show the ventive licensing speech-act ADDRESSEES. The addressee is perhaps just implied in (128). But unlike G/B Datooga where apparently only the ventive occurs for speech-act ADDRESSEES, Griscom (2019: 236–237) notes some variability in use of dative and ventive for this function.³⁵

(126) Asimjeeg Datooga (Griscom 2019: 107)³⁶

<i>qámá-t-àŋ^w</i>	<i>g-í-g-^wá-rúŋ-n-ò:n</i>	<i>ŋàf-!ánd</i>
mother-SG-2PL.POSS	AFF-FUT-AFF-3-say-VEN-2SG	word-SG
‘...your mother will tell you something...’		

³⁴ Kießling does not discuss whether the verbs are syntactically trivalent, allowing both PATIENT and GOAL as core objects. His examples all carry a directional suffix.

³⁵ He also observes that across Datooga studies, examples with ventive versus dative for applied GOAL/BENEFICIARY/ADDRESSEE are not controlled for verb root, nor for aspect which applicative/directional forms can help express.

³⁶ Griscom (2019: 107) glosses *-n* as OBL in (126); based on personal communication (1/11/2022) I gloss it here as VEN.

- (127) Asimjeeg Datooga (Griscom 2019: 237)
àní:n g-à:-gàs-àj dà-rùg-n-ó:g gídàb m-ád-g^w-á-nd
 1SG AFF-1SG-want-PLRC 1SG-tell-VEN-2PL COMP NEG-PERS-AFF-3-COP
 ‘I want to tell you all that there isn’t anything anymore. .’

- (128) Asimjeeg Datooga (Griscom 2019: 221)
Ø-rúŋ-ní
 2SG-tell-VEN
 ‘Tell (me).’

Griscom argues that the ventive can increase valence in Asimjeeg Datooga. In (129), the root *fa* occurs with no directional, meaning ‘buy’. In (130), *fa* occurs with the itive, yielding ‘sell’. In (131) it occurs with the ventive but now also with a 1SG object suffix. This is an impersonal construction which has a prefix resembling that of a 1PL subject (Griscom 2016: 180); but the end result in (131) has two objects, ‘shawl’ and 1SG.

- (129) Asimjeeg Datooga (Griscom 2019: 225)
g-ì-dà-fā dé:-d ...
 AFF-FUT-1SG-buy cow-SG
 ‘I will buy a cow. .’

- (130) Asimjeeg Datooga (Griscom 2019: 225)
q-à:-fā-d dájé:g í:jèŋ
 AFF-1SG-buy-ITV goat.PL two
 ‘I sold two baby goats.’

- (131) Asimjeeg Datooga (Griscom 2019: 225)
g-é:-fā-n-à:n háŋ-d
 AFF-IMPERS-buy-VEN-1SG shawl-SG
 ‘I was bought a shawl.’

Griscom (2019: 226) suggests the itive can also increase valence by adding an INSTRUMENT to *bar* ‘hit’ in (132). However, this single example is not entirely convincing; the itive perhaps creates the meaning of ‘farm’ (lit. ‘hit away’) and hence an INSTRUMENT may be contextually evoked because, pragmatically, someone must use something to ‘hit away’ with.

- (132) Asimjeeg Datooga (Griscom 2019: 226)
m-à-nd-án gísir-dzànd m-εε:-bár-dà
 NEG-3-COP-OBL.APPL hoe-SG NEG-IMPERS-hit-ITV
 ‘There weren’t any hoes, they weren’t used to farm.’
 (Perhaps lit. ‘They weren’t hit away / [people] didn’t hit away’.)

5.3 Western Nilotic

For WN, Reh (1996: 261) suggests that ventive $*-\dot{V}(V)_{[-BRV]}n$ or $*-n\dot{V}(V)_{[-BRV]}$ and itive $*-t\dot{V}$ or $*-\dot{V}t$ forms reconstruct to Proto-Nilotic; these correspond to intransitive directional forms in WN. Transitive verbs have distinct directional forms, ventive $*-\dot{V}_{[+BRV]}$ and itive $*-\dot{V}_{[-BRV]}$; Reh suggests these reconstruct to Proto-WN. Modernly for various WN languages and verb classes, ventive and itive versus base roots may be marked just by tone, alternation or deletion of a final stem consonant, and stem-internal vowel changes.

Not all discussions of WN directionals indicate whether they have applicative functions (cf. Reh 1996: 249–258 on Anywa; Reid 2019 on Nuer). However, Agar Dinka (Andersen 1992–1994; Andersen 2012b) and Mabaan (Andersen 1999) directionals clearly have redirecting applicative functions. In (133) there is no directional and the place or SOURCE from which something is removed is the object. In both (134) with the itive and (135) with the ventive, the moved THEME is the grammatical object.

(133) Mabaan (Andersen 1999: 109)

ʔékkèn ʔān wiiĕj-é
 3PL house sweep-PST.3PL.3
 ‘They swept the house.’

(134) Mabaan (Andersen 1999: 109)

ʔékkèn j̥iik-én wiiĕc-é
 3PL rubbish-PL sweep-ITV-PST.3PL.3
 ‘They swept the rubbish (into something).’

(135) Mabaan (Andersen 1999: 109)

ʔékkèn j̥iik-én wĕĕw-w-é
 3PL rubbish-PL sweep-VEN-PST.3PL.3
 ‘They swept the rubbish hither.’

For Lango, Noonan (1992) mentions ventive derivations with certain motion verbs (he is silent about an itive). Discussion of a potential valence effect is minimal, but the ventive always “refers to motion toward the speaker” (p. 135). In the following examples there is no indication of 1SG other than what is implied by the ventive (compare Lango examples in Section 6 which overtly mark 1SG objects). Thus, we might say the ventive increases semantic valence in at least cases like (136) and (137); perhaps it just clarifies what the goal is in (138) since ‘send’ already implies a destination.

- (136) Lango (Noonan 1992: 135)

àtín òrìṇṇô
 child 3SG.run.VEN.PFV
 'The child ran to me.'³⁷

- (137) Lango (Noonan 1992: 135)

yât òmòllô
 wood 3SG.float.VEN.PFV
 'The wood floated toward me.'³⁸

- (138) Lango (Noonan 1992: 135)

Dákó òcwàllô búk
 woman 3SG.send.VEN.PFV book
 'The woman sent the book to me.'

6 Look-alike syntactic constructions

WN Lango distinguishes the dative applicative construction (Section 3.3) and a non-applative “dative shift” construction. I am not aware of other Nilotic languages which have such an alternation. In (139) the RECIPIENT has the preposition *bòt* ‘to’ and follows the THEME object. In (140) it occurs without a preposition directly after the verb and before the THEME. No object is indexed on the verb when the object is an NP (p. 141) or is inanimate.

- (139) Lango (Noonan 1992: 121)

lócà òmỳò búk bòt dákô
 man 3SG.give.PFV book to woman
 'The man gave the book to the woman.'

- (140) Lango (Noonan 1992: 121)

lócà òmỳò dákô búk
 man 3SG.give.PFV woman book
 'The man gave the woman the book.'

³⁷ Noonan (1992: 125) subsumes the non-ventive counterpart of (136) to his “activity naming” verb form which “refer[s] solely to a subject’s participation in an activity, but not activity directed toward any particular object”. At least some such forms are antipassive in sense.

³⁸ Noonan (1992: 125) relates the non-ventive counterpart of (137) to his “secondary argument” (SA) form, in which “[t]he argument that would be the DO of a transitive is the Su[bject] of the corresponding SA form”. These appear to be anticausatives.

At most one object is indexed on the Lango verb at a time, but this can be THEME, or RECIPIENT in the “dative shifting” construction. In (141) the human RECIPIENT is indexed and the non-human THEME is expressed as a zero. In (142) the human THEME is indexed while the RECIPIENT is in a prepositional phrase headed by *bòt*. Note the contrast between *òmìyé* in (142) versus *òmìyò* in (140) above; and between *òmìyé* and *òmìyá* in (143). Preferential indexing of human (or perhaps animate) objects on the verb is generally the norm in Nilotic.

- (141) Lango (Noonan 1992: 121)

lócà òmìyá
man 3SG.give.PFV.1SG
‘The man gave it to me.’

- (142) Lango (Noonan 1992: 121)

lócà òmìyé bòtá
man 3SG.give.PFV.3SG to.1SG
‘The man gave him (e.g., a slave) to me.’

- (143) Lango (Noonan 1992: 121)

lócà òmìyá búk
man 3SG.give.PFV.1SG book
‘The man gave me the book.’

Per definitions in Zúñiga and Creissels (this volume), the EN Lopit and Maa external possession constructions are morphologically unmarked but syntactic “applicative-look-alike” constructions. Maa verbs are almost never labile but in the external possession construction, the clause has one more object than normally allowed by the valence of the root or stem (Payne 1997). If the base verb is intransitive, as in (144), the possessed item in the external possession construction is the subject, and the possessor NP is the grammatical object, indexed on the verb if it is a speech-act participant, as in (145). Thus, valence increases with adding a POSSESSOR object. If the base is transitive, the possessor is the primary grammatical object, again increasing valence. This construction expresses that there is some effect on the possessor, whether positive or negative.

- (144) Maasai (adapted from Payne 1997: 104)

é-íshú en=kíne
3-be.alive FSG=goat.NOM
‘The goat is alive.’

- (145) Maasai (adapted from Payne 1997: 104)

áa-íshú en=kíne
3>1SG-be.alive FSG=goat.NOM
‘My goat is / will be alive (and I am benefitted thereby).’

EN Lopit (Moodie and Billington 2020: 287–288) and WN Jumjum (Andersen 2019) are similar to Maa in treating an external possessor as the object with no derivational marking on the verb. The phenomenon has not, to my knowledge, been explored for other Nilotic languages.

7 Non-applicative and lexicalized functions of the Nilotic morphology

Finally, we comment on major non-applicative functions of morphology that also has applicative functions.

Non-applicative uses of the dative are minimally discussed for most Nilotic languages. In Maa (EN), the dative can mark ‘intensity, persistence’ or intention to do something with translational-motion verbs like *lo(t)* ‘go’, *kuet* ‘run’, *suɟ* ‘follow’. These can take geographical GOALS with no special marking, as in (146).

- (146) Maasai (fieldnotes)
 áa-súɟ *ol=dóínyó*
 3>1SG-follow MSG=mountain
 ‘S/he will follow me to the mountain.’

With the dative, the otherwise identical sentence might imply that the one following me has bad intentions and I am seeking refuge in the mountain, as in (147).

- (147) Maasai (Wuasinkishu dialect; fieldnotes)
 áa-suɟ-akí *ol=dóínyó*
 3>1SG-follow-DAT MSG=mountain
 ‘S/he will track me (all over, through whatever routes I might take) to the mountain.’

Also note the multiple readings possible in (148). The second reading has the same argument structure as (146), but with a greater sense of intensity.

- (148) Maasai (Wuasinkishu dialect; fieldnotes)
 áa-suɟ-akí *en=kíténɟ*
 3>1SG-follow-DAT FSG=bovine
 (i) ‘He will follow the cow for me.’ (e.g., it is lost and I am unable to go after it.)
 (ii) ‘He will pursue me all the way to the cow.’ (e.g., I know that a dog pursuing me is afraid of cows, so I run to a cow seeking safety, but the dog pursues me all the way there.)

The fact that *soj* ‘follow’ in its simple form can already occur with an overt GOAL presumably makes the dative available for an extended function. Whether the ‘intensity/high-intention’ function extends to verbs without an implicit sense of GOAL in their argument structure is unknown.

As we have seen, instrumental applicative forms have a range of semantic functions across Nilotic languages, including LOCATION, REASON, and more. In Maa, the *-ie(k)* instrumental applicative is the causative with Class II verbs. Example (149) shows the base <THEME SOURCE> argument frame of *ɪŋat* ‘move away from’; (150) demonstrates the valence-increasing causative effect of what is otherwise the instrumental applicative.

(149) Maasai (fieldnotes)

é-ɪŋát-á *en=kéjʊ* *en=kóp*
 3-move.from-PF FSG=leg.NOM FSG=land
 ‘The leg has lifted up from the ground.’ (e.g., when running)

(150) Maasai (Wuasinkishu dialect; fieldnotes)

áa-ɪŋat-ie *ɔl=ɪŋátúny*
 3>1SG-move.from-INS/CAUS MSG=lion
 ‘S/he will make me flee from the lion.’

Section 5 discussed applicative functions of the directionals; but their core functions are to express literal and fictional direction, orientation, spatial deixis, and associated motion. In SN languages, directionals co-occur with a distinct associated motion morpheme for the associated motion function; but in EN and WN, directionals by themselves function as such (Payne 2021).

Directionals also extend into the domain of aspect. The aspectual functions are relatively less studied, but appear to be quite diverse from one language to another. For instance, Spagnolo (1933: 143) says the Bari ventive can communicate ‘perfective/finishing off’, while in other EN languages the ventive has likely developed into the inchoative. Payne (2021) provides one overview of the functions of directionals across Nilotic.

Perhaps most remarkably, we have seen that in SN, the ventive, itive, and even the dative are beginning to participate in person indexation. In general, the ventive correlates with 1st and 2nd person BENEFICIARY and related notions, while the itive and dative may correlate with 3rd person BENEFICIARY and related notions. Most notably, for G/B Datooga, Bruckhaus (2021: 118) states that though 1st and 2nd person BENEFICIARIES can be indexed on ventive verb stems by object suffixes, they can also be inferred from “blank” ventive stems.

Finally, in probably all Nilotic languages that have them, dative, instrumental and directional affixes are lexicalized into some verbs. That is, certain simple root forms do not occur without one of these (historical) affixes. Remarkably, this extends even to verbs for ‘give’ in some Nilotic languages as in Nandi and Turkana, seen in (151)–(152). This is so even when other three-argument roots do exist, such as Turkana ‘beg’.

- (151) Turkana (Dimmendaal 2009: 3)
kà-in-ak(i) ɲesi ayɔŋ ɲakipi
 3>1-give-DAT 3SG.NOM 1SG water
 ‘S/he has given me water.’
- (152) Nandi (Creider 2002: 174)
mé:-ka:-cín cî:
 NEG-give-DAT person
 ‘(S/he) doesn’t give (it) to anyone.’

8 Summary of major findings

Much research remains to be done on the Nilotic family, and details about applicative constructions are no exception. However, major findings that we can draw from the available literature follow.

Inventory

- Dative applicatives occur in all Nilotic branches. Dholuo (WN) appears to have lost this but may be newly developing one by cliticizing a preposition.
- Instrumental/locative applicatives are well-attested in EN and SN, but minimally in WN. WN Shilluk has distinct instrumental/locative versus benefactive/dative applicative constructions.
- SN Datooga languages may have a third *-an* applicative.
- Ventive and itive directionals have redirective applicative functions in all Nilotic branches and additional applicative functions in SN. Serial or converbal constructions are not used for applicative jobs. However, ventive and itive directional affixes conceivably developed from movement verbs.

Morphology

- EN and SN applicative suffixes have considerable allomorphy, motivated by vowel harmony and consonant changes including deletion. WN languages mostly (but not exclusively) use stem alternations involving tone, length, vowel quality, and consonant alternations and deletion. WN phonological verb classes affect applicative stem forms, and Anywa has different directional forms for intransitive versus transitive verbs.
- Applicativized verbs behave like regular verbs in their inflection for person, number, tense, aspect, mood.
- In EN and SN, dative and instrumental applicatives can co-occur.

- Dative/benefactive applicatives generally do not co-occur with directionals. There is no restriction on combining the instrumental with directionals in at least EN and SN.

Syntax

- Dative and instrumental applicatives normally increase valence on both intransitive and transitive bases.
- Animacy is likely significant in what is treated as the more privileged object, as much or more so than semantic role and base versus applied status.
- Dative APPPs which express BENEFICIARY/MALEFICIARY and ADDRESSEE roles are primary/direct objects, being indexed on the verb and/or occurring in the privileged object position.
- The status of dative APPPs that express GOALS or other locative arguments is more varied in at least EN. In Maa they are the privileged object. But in Turkana and Ateso they may occur with a preposition and/or in a locative case; this is also true of WN Reel.
- With instrumental/locative applicatives, the APPP is usually the privileged object, but in at least Ateso, the APPP keeps a reduced preposition plus has instrumental tonal case. Little work has been done on the required versus optional nature of LOCATION, TIME, and other semantically “oblique” APPP arguments.
- Dative and instrumental applicatives generally don’t change the syntactic status of the companion arguments between the base and applied constructions (at least in languages with nominative-accusative syntax), aside from perhaps affecting linear order (though order may depend on relative topicality). (Some WN languages are argued to have ergative features.) WN Anywa and Jumjum are languages for which the applied BENEFICIARY is argued to syntactically displace the base-construction object.
- Directionals can have a redirecting applicative function with basic <AGENT SOURCE/GOAL> verbs, without changing valence. The applied THEME is then the primary or direct object. The GOAL/SOURCE is no longer a core argument, and can only occur in an oblique phrase.
- There are no known limitations on combining applicatives with voice-type operations such as antipassive, causative, middle, and impersonal/passive.
- Applied constructions generally correspond to the regular valence patterns of a language. However, in at least some languages they can create four-argument clauses which otherwise do not exist.
- With reference to case and verb indexation frames, in some languages all APPPs occur in the unmarked case for primary/direct objects. In EN Turkana and Ateso and WN Reel, the dative applicative licenses a LOCATIVE AppP in a locative case form.
- In Shilluk, a pre-verbal focused LOCATION requires an applicative verb. (There is little information on whether applicativization is required to relativize or focalize otherwise non-core syntactic phrases.)

Semantics and pragmatics

- Different applicative derivations are specialized for different ranges of semantic roles. Dative applicatives add BENEFICIARY/MALEFICIARY, RECIPIENT, ADDRESSEE, and (specific/reached-)GOAL and occasionally other locative notions.
- The dative is typically obligatory for expressing a BENEFICIARY/MALEFICIARY participant. Adpositional phrases are not usually possible for this function but at least EN Lopit is an exception. SN languages have two or more forms for applied benefactives according to person (and sometimes specificity for 3rd persons) of the BENEFICIARY.
- The dative applicative is syntactically optional for expressing a GOAL with movement and caused-motion verbs. It is sometimes lexicalized even with ‘give’.
- With some movement verbs the Maasai dative can yield a semantic nuance relative to the semantic role of the object (GOAL-REACHED with the dative versus PATH with the non-applied construction), or intensity of the action vis-à-vis the object, but without changing valence. Nevertheless, no morphology has turned from erstwhile applicative into a strictly valence-neutral function.
- In EN, SN, and WN Shilluk, the instrumental applicative can add a range of roles such as INSTRUMENT, MEANS, CONCOMITANT, LOCATION, SOURCE, TIME, REASON, RESULT, depending on interaction with lexical and contextual factors.
- Datooga varieties have a possible distinction between an ‘instrumental’ and a more opaque ‘oblique’ applicative *-an*; their differentiation is complicated by interaction with other morphemes including aspect and directionals.
- Little is known about what motivates the choice when a given semantic role can be expressed in an applicative or prepositional construction. Sometimes it may have to do with specificity, or topical versus new information status. In WN Shilluk, the instrumental applicative is required if a non-core argument is focused in pre-verbal position.
- Directionals have valence-neutral redirective applicative functions with <AGENT SOURCE/GOAL> verbs, suppressing base GOAL/SOURCE in favor of THEME.
- In some SN languages, directionals have extended into adding a COMITATIVE object.
- In SN, the ventive has specialized for adding speech-act BENEFICIARY/ADDRESSEE objects.

Look-alike constructions

- WN Lango has an English-style “dative alternation”.
- EN Maasai and Lopit and WN Jumjum have external possession constructions. These increase valence by adding an object, with no valence-increasing morphology on the verb.

Finally, we must underscore that few extensive studies of Nilotic applicatives currently exist, notable exceptions being Lamoureux (2004) for EN Maasai, Dimmendaal (2009)

on EN Turkana, and Bruckhaus (2021) for SN Datooga. Research is especially needed on syntactic and semantic extensions, the interrelationship of applicatives with particular verb types and participant features, and on discourse-pragmatic issues.

Abbreviations

ACC	accusative
AFF	affirmative
AGR	agreement
AM	associated motion
APPL	applicative
APPP	applied phrase
ASP	aspect
ATR	advanced/retracted tongue root
BEN	benefactive/beneficiary
BRV	breathy voice
CAUS	causative
CN	connective
COMP	complementizer
COP	copula
CVB	converb
DECL	declarative
DAT	dative
DEM	demonstrative
EMPH	emphatic
EN	Eastern Nilotic
ERG	ergative
EVID	evidential
F	feminine
FOC	focus
FPL	feminine plural
FS	final suffix
FSG	feminine singular
FUT	future
IMP	imperative
IMPERS	impersonal
INCOMPL	incomplete
INF	infinitive
INS	instrument
INTR	intransitive
INV	inverse
IPFV	imperfective
IS	inflectional suffix
ITV	itive
LINK	linker
LOC	locative

M	masculine
MID	middle
MPL	masculine plural
MSG	masculine singular
NEG	negative
NMLZ	nominalizer
NOM	nominative
NTS	non-topical subject
OBJ	object
OBL	oblique
PASS	passive
PERS	persistive
PF	perfect(ive)
PFV	perfective
PL	plural
PLRC	pluractional
POSS	possessive
PREP	preposition
PRF	perfect
PROG	progressive
PROSP	prospective
PROX	proximal demonstrative
PSM	possessum
PSR	possessor
PST	past
REC	reciprocal
REL	relative
REP	repeated action
SBJ	subject
SBJV	subjunctive
SG	singular
SN	Southern Nilotic
SUBS	subsequent
TR	transitive
VEN	ventive
WN	Western Nilotic
x>y	x acts on y

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Martine Vanhove

24 Applicative constructions in Cushitic

Abstract: This chapter provides an overview of the morphology, syntax, and semantics of applicative constructions and applicative lookalikes in the five branches of Cushitic languages for which enough data show that such constructions exist: Central Cushitic, Northern Cushitic, and three groups within Eastern Cushitic (the Iraqw-Alagwa-Burunge cluster, Omo-Tana and Oromo). These constructions have hitherto been largely underestimated, or analysed differently. In general, applicative lookalikes predominate, and even though there is a good number of commonalities among the languages, each of them has developed its own system. The two main strategies used are preverbal constructions and periphrastic constructions, while morphological derivation is rather marginal. The most frequent semantic roles of applied phrases are beneficiary, instrument, and location (ventive, ablative); the roles of maleficiary and cause are marginal.

1 Introduction

Cushitic languages constitute one of the six branches of the Afroasiatic phylum, alongside Berber, Chadic, Egyptian, Omotic and Semitic. They are spread in Northeast and East Africa from southern Egypt, in the north, to Tanzania, in the south; the majority of these languages are spoken in Ethiopia. They are traditionally divided into three sub-branches: northern, central, and eastern, with further subdivisions as shown in Figure 1.

The number of speakers varies greatly from one language to the other. According to Ethnologue (Eberhard, Simons, and Fennig 2022), Oromo, which is also used as a lingua franca, has over 36 million speakers, Somali over 21 million. Afar, Beja, Hadiyya, Kambaata and Sidaama have between approx. 750,000 and 4,3 million speakers; Awngi, Xamtanga, Konso, and Iraqw between approx. 200,000 and 500,000 speakers (Ethnologue), while the number of speakers goes down to some 10,000 for e.g. Alagwa (Mous 2016: 1). Yaaku and Elmolo in Kenya are highly endangered with very few old (semi-)speakers left (even maybe none today for Elmolo), as well as Kemant and Bilin in Ethiopia, and probably also Dahalo, with a few hundred speakers left for the latter.

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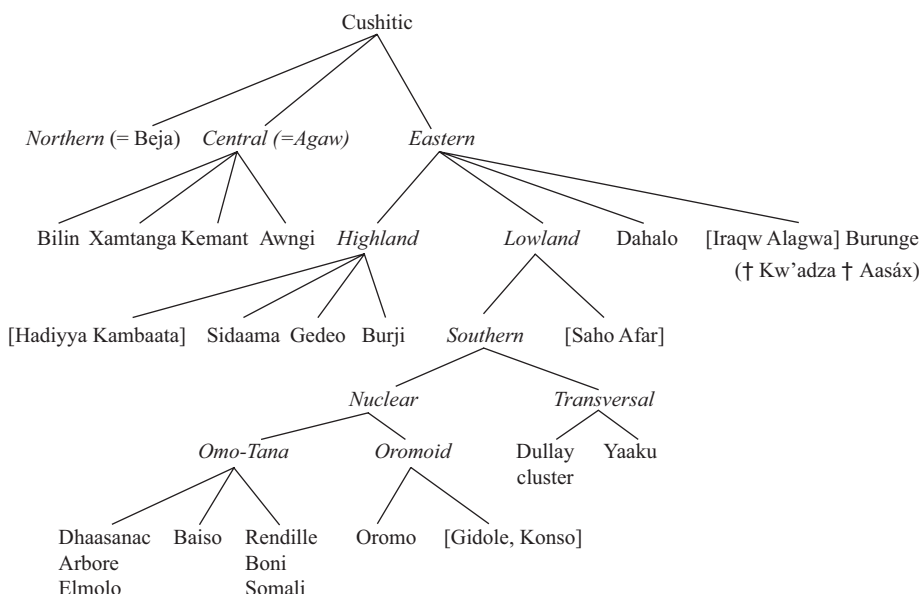


Figure 1: The classification of Cushitic (adapted from Tosco 2000a: 89, 108; Mous 2012: 342) [† = extinct language].

Depending on the authors' stance about the status of dialects vs. languages, one counts between 30 and 45 Cushitic languages. For instance, Ethnologue distinguishes five Oromo languages and seven Somali languages, while other scholars count two languages, with dialectal variants.

A good proportion of the languages have gained national or official recognition during the 20th century. They may even be taught at school in the countries where they are spoken, as is the case for most of them in Ethiopia, for Somali in Somalia, Afar in Eritrea (and Ethiopia), or Beja in Eritrea, while the same (and other) languages in other (or the same) countries still remain unscripted and non-official, as e.g. Beja in Sudan.

Language contact, and bi- or multilingualism between Cushitic languages, with various Ethio-Semitic languages (or with Arabic in Sudan and Egypt) are widespread, as well as with Omotic in Southwest-Ethiopia, Bantu and Nilotic languages in the south of the Cushitic domain, in Kenya and Tanzania. More often than not, language contact not only impacted the phonology and the lexicon, but also led to morphological borrowings, syntactic calques, and various convergence phenomena at the morphological level (Tosco 2000b, 2009; Crass and Meyer 2008; Vanhove 2012, 2020a).

Cushitic languages are morphologically rich, with suffixes (a majority), prefixes, infixes (rare), ablaut, stem alternations, reduplication and suprasegmental morphemes. They are predominantly verb-final. There is a robust noun-verb distinction. Verbal predicates can be finite, semi-finite or non-finite (converbs, relative verbs). Valency-changing derivation (causative, middle and/or passive) exists in almost all languages, as well as morphological devices to express pluractionality. Inchoative and verbalizing

morphological devices are also widespread. See Mous (2012) for a detailed typological profile of Cushitic.

The derived middle voice is often used with an auto-benefactive semantic value, among other senses as listed by Kemmer (1993). In several languages, the auto-benefactive value is even the most productive one. Mous (2004: 85) mentions Somali, Oromo, Afar, to which Kambaata (Treis 2023) and a few others could be added. Below is an example from Gedeo, where the auto-benefactive value is also productive.

(1) Gedeo (Eyob 2015: 278)

mandɛ-i-tʃʃ-i *abokatto* *k'oʃʃʃ-ed-Ø-e*
 person-EP-SG-NOM.M avocado collect-MID-3SG.M-PFV
 'The man collected avocado for himself.'¹

The auto-benefactive value of the middle voice won't be further dealt with in this chapter.

The term "applicative" is rarely used in Cushitic linguistics, except, as far as I know, in Heine (1980a), Kießling (1994), Mous (2016), and Darmon (2015), neither are "benefactive" or "malefactive" often mentioned in descriptions. Consequently, this chapter presents an endeavour to identify applicative constructions (or applicative lookalikes) in three branches where some constructions meet (part of) the criteria presented in Zúñiga and Creissels (this volume). This concerns central (§ 2.1) and northern Cushitic (§ 2.2) for periphrastic constructions with auxiliaries, parts of the eastern branch, the Iraqw-Alagwa-Burunge cluster (§ 3.1), and the Omo-Tana branch (§ 3.2) for constructions with preverbs, and marginally with verbal derivation (§ 4). From the available descriptions, it seems that the other branches only use the adjunct strategy with dative cases or adpositions. § 5 presents a possible lookalike in Oromo.

The definition provided by Zúñiga and Creissels in the introductory chapter, repeated below, is followed to identify applicative constructions (and their lookalikes):

The base construction (BC) and the applicative construction (AC) are related as follows:

- i) The predicates in both constructions are built upon the same root, but the one in the AC bears additional overt marking that distinguishes it from the one in the BC.
- ii) The participant encoded as S or A in the BC appears as S or A in the AC.
- iii) The AC includes a noun phrase in a role other than S or A, the applied phrase (AppP), which refers to a participant that either requires a non-core coding different from its coding in the BC or cannot be expressed at all in the BC. (Zúñiga and Creissels, this volume).

¹ Throughout this chapter, glosses have been harmonized whatever the system used by the authors. In particular, preverbs used with an applicative value are always glossed APPL. Whenever possible, preverbs relevant for the applicative domain have been hyphenated if they were not segmented in the source. Translations from German sources are mine. In the Iraqw-Alagwa-Burunge cluster's transcriptions, / corresponds to the voiced laryngalized pharyngeal fricative ʕ.

2 Periphrastic applicatives with auxiliaries

Following David Cohen's unpublished approach to auxiliaries (summed up in Simeone-Senelle and Vanhove 2003), several criteria are used to identify auxiliaries (also called verb-operators) within a verbal periphrastic construction, defined as a bi-verbal mono-clausal construction denoting a single event:

- (i) A verbal periphrastic construction, made of an auxiliary verb and a lexical verb, constitutes a morphosyntactic and semantic unit.
- (ii) Within the utterance, the syntactic scope of the auxiliary is the lexical verb, not the utterance.
- (iii) No coordinating or subordinating element can intervene between the two verbs.
- (iv) Both verbs have the same S (or A).
- (v) The P argument of the periphrasis, if any, is that of the lexical verb.
- (vi) The auxiliary usually undergoes desemanticization: its meaning is more general than that of the lexical verb, since it needs to combine with all (or many) semantic classes of verbs.
- (vii) Paradigmatic substitution is only possible for the auxiliary.

All these criteria point to the mono-clausal status of the periphrasis as opposed to bi-clausal constructions.

Note that finiteness and the autonomous properties of the two verbs are not criteria for the identification of auxiliaries. Thus, this broad characterization also includes what is traditionally termed SERIAL VERB CONSTRUCTIONS, minimally characterized as follows by Creissels (2010: 37): (a) no linking element is present between the verbs involved in the construction, and (b) none of the verbs involved in the construction is in a form implying a non-autonomous status. Such an approach of verbal periphrastic constructions is more in line with Shibatani's (2009) criticism of serial verb constructions "as a cross-linguistically valid type of construction" (Creissels 2010: 38) because they share many properties with other types of verbal periphrastic constructions.

2.1 Central Cushitic

For Xamtanga, Darmon (2015) reports four periphrastic applicative constructions with the following auxiliaries: *yīw-* 'give', *nāy-* 'give to the speaker / here', *bār-* 'leave, abandon', and *y-* 'say'.

2.1.1 The auxiliary *yīw-* 'give'

In the first periphrastic construction, the lexical verb is in the converb form, followed by the auxiliary *yīw-* 'give', which conforms to the seven criteria mentioned in § 2 above. In

addition, Darmon (2015: 193) mentions language specific properties also showing that the applicative construction is a single event (and not several, as when converbs are used in dependent clauses): (i) only one converb can precede the finite ‘give’ verb, unlike in deranked subordinate clauses; and (ii) the negative marker on ‘give’ has scope over the whole construction (not only on ‘give’ if ‘give’ had been the verb of a matrix clause).

In Xamtanga, recipient, goal, and beneficiary semantic roles are systematically marked with a non-core coding, the dative case, but with the ‘give’ construction the recipient and goal interpretations are excluded. However, since the applied phrase has the same non-core marking as in the base construction (compare 2a, 2b and 2c), it does not comply with the third criteria of Zúñiga and Creissels’s definition. The ‘give’ construction could thus better qualify as an applicative lookalike of the privative-marking type, in which “the A[pplied] C[onstruction] predicate shows higher morphological complexity than the B[ase] C[onstruction] predicate—more precisely, an element analyzable as an applicative marker” (Zúñiga and Creissels, this volume). However, there are also cases in which the applied phrase cannot occur in the base construction (3), thus also meeting the third criterion of a well-behaved applicative construction. The syntactic marking of the arguments is a clear trace of the origin of the construction.

Semantically, what the auxiliary *yiw-* ‘give’ adds to the base construction is that the action is done in somebody’s interest, on somebody’s behalf, in his or her favour, showing that the semantic role of the dative argument is indeed that of a beneficiary. The ‘give’ auxiliary is restricted to transitive lexical verbs, and it may be contiguous to it (4), or not (2c–3). No examples with a pronominal applied phrase were found.

(2) Xamtanga

- a. *s’iqa kin-d-iŋ ŋin biz-n-u-n*
 ten learn-MEDP-NMLZ house[ACC] open-1PL-PFV-1PL
 ‘We opened ten schools.’ (Darmon 2015: 150)
- b. *abin-i-z bir-id biz-i-č*
 guest-DEF-DAT door-DEF[ACC] open-PFV-3SG.F
 ‘She opened the door to the guest.’ (Darmon 2015: 194)
- c. *bir-id biz-ir šimir-yän-s yiw-i-č*
 door-DEF[ACC] open-3SG.F[CVB] old.woman-DEF-DAT give-PFV-3SG.F
 ‘She opened the door for the old woman.’ (she did not manage to do it herself)
 (Darmon 2015: 192)

(3) Xamtanga (Darmon 2015: 192)

- mi-dyän-t abiz Dawit-is yiw-u-n*
 injera-DEF-ACC finish[1SG.CVB] Dawit-DAT give-PFV-1SG
 ‘I finished the injera for the sake of Dawit.’ (otherwise he would have been punished)

- (4) Xamtanga (Darmon 2015: 193)

$\eta i = x^{w}ir\ddot{a}-si$ ηin $t\ddot{a}ss$ $yiw-i-y-\ddot{a}w=im$
 3SG.M.POSS=child-DAT house[ACC] build[3SG.M.CVB] give-PFV-NEG-3SG.M=MULCL
 'He did not build a house for his son.'

2.1.2 The auxiliary *näy*- 'give to the speaker / here'

If the beneficiary is the speaker, i.e. a first person, Xamtanga uses a deitic 'give' auxiliary *näy*- 'give to the speaker / here' instead of *yiw*-.² The lexical verb is in the converb form, preceding the auxiliary, and no overt 1st person pronoun is mentioned. This is a different case of an applicative lookalike construction, where the applied phrase is inherent to the meaning of the auxiliary.

- (5) Xamtanga (Darmon 2015: 194)

ηin $t\ddot{a}ss$ $n\ddot{a}y-u$
 house[ACC] build[3SG.M.CVB] give.to.the.speaker-PFV[3SG.M]
 'He built a house for me.'

2.1.3 The auxiliary *bär*- 'leave, abandon'

The periphrastic construction with *bär*- 'leave, abandon' is morphosyntactically similar to the one with *yiw*- 'give': the lexical verb in the converb form precedes the auxiliary. Both transitive and intransitive verbs are licensed with this auxiliary.

Semantically, the applied phrase may have a malefactive or a benefactive interpretation, depending on the semantics of the verb, the subject NP, or the extra-linguistic context, judging by the examples provided in Darmon (2015). Based on the semantics of the auxiliary when used as a lexical verb, Darmon (2015: 204) hypothesizes that the malefactive reading is primary. When the participant is positively affected, it is always understood as a plain beneficiary.

Unlike with *yiw*-, the introduction of *bär*- after transitive verbs does not necessarily require the presence of a third non-core argument. When the direct object of the base construction becomes the applied phrase of the verbal periphrasis, it keeps its accusative case (6). This construction could thus also be interpreted as an applicative lookalike. On the other hand, the locative case of a non-core argument with intransitive verbs in the base construction is turned into the accusative case with the applicative periphrasis (7). It thus promotes the adjunct participant to the status of a core syntactic term. With transitive verbs, the non-core argument of the base construction can be either promoted to a core argument with accusative case (8–9)—in line with the narrow

² See Creissels (2010: 50) for crosslinguistic attestations of 'give' verbs with a deictic component.

definitions of applicatives (e.g. Dixon and Aikhenvald 2000), but not of Zúñiga and Creissels (this volume)—or remain in the non-core dative case in the applied construction, while only the non-core dative case is possible in the base construction (9).

(6) Xamtanga

- a. *dāṇā-d ḡṛ-idyān-t dāṇt-u*
 judge-DEF man-DEF-ACC judge-PFV[3SG.M]
 ‘The judge judged the man.’ (Darmon 2015: 198)
- b. *dāṇā-d ḡṛ-idyān-t dāṇt bār-u*
 judge-DEF man-DEF-ACC judge[3SG.M.CVB] leave-PFV[3SG.M]
 ‘The judge judged the man to his detriment.’ (he was probably innocent)
 (Darmon 2015: 197)

(7) Xamtanga (Darmon 2015: 197)

- a. *Birtukʷan-til qasʹ-u*
 Birtukʷan-LOC shout-PFV[3SG.M]
 ‘He yelled at Birtukʷan.’
- b. *ṇita=nyä-yān ifār-dyān-t qasʹ-ir bār-i-č*
 3PL.POSS=mother-DEF child.PL-DEF-ACC shout-3SG.F[CVB] leave-PFV-3SG.F
 ‘The mother scolded her children.’ (she shouted at their detriment)

(8) Xamtanga (Darmon 2015: 199)

- a. *ifārä-y-z-u sʹibkʹä-d kʹäb-u-n*
 child-DEF-GEN-HEAD.SG hair-DEF[ACC] cut-PFV-1SG
 ‘I cut the child’s hair.’
- b. *ifārä-y-z-u sʹibkʹä-d kʹäb bātʹ-u-n*
 child-DEF-GEN-HEAD.SG hair-DEF[ACC] cut[1SG.CVB] leave-PFV-1SG
 ‘I cut the child’s hair.’ (to make him happy / against his will)

As with *yiw-*, when a third argument is added to a transitive verb, the applied phrase can be placed between the core verb and the auxiliary or precede the whole periphrasis.

(9) Xamtanga

- a. *Abbäbä Birtukʷan-si dībdabe sʹaf-u*
 Abbäbä Birtukʷan-DAT letter[ACC] write-PFV[3SG.M]
 ‘Abbäbä wrote a letter to Birtukʷan.’ (Darmon 2015: 194)
- b. *Guläšu Fre-t / Fre-s dībdabe-d sʹaf*
 Guläšu Fre-ACC Fre-DAT letter-DEF[ACC] write[3SG.M.CVB]
bār-u
 leave-PFV[3SG.M]
 ‘Guläšu wrote the letter to the detriment of Fre.’
 (Lit. ‘Guläšu wrote the letter and left Fre / (it) to Fre’)

- c. *Guläšu dibdabe-d s'af Fre-s bär-u*
 Guläšu letter-DEF write[3SG.M.CVB] Fre-DAT leave-PFV[3SG.M]
 'Guläšu wrote the letter to the detriment of Fre.' (Darmon 2015: 198)

The positively or negatively affected element can also be the speaker, which is left unexpressed. In such a case, the construction is again an applicative lookalike. In (10) the auxiliary *bär* 'leave' induces the applicative reading of the sentences, but it is the adjective or the verb modifying the subject that entails the benefactive (10a) or malefactive (10b) reading.

- (10) Xamtanga (Darmon 2015: 199)
- a. *id č'iqä gizij-id kir bär-u*
 DEM2.SG.M bad dog-DEF die[3SG.M.CVB] leave-PFV[3SG.M]
 'That bad dog died.' (speaker positively affected)
- b. *id k'äs-äw gizij-id (k'al) kir bär-u*
 DEM2.SG.M be.good-3SG.M dog-DEF INTRJ die[3SG.M.CVB] leave-PFV[3SG.M]
 'That good dog died!' (speaker negatively affected)

2.1.4 The 'say' construction

The case of the 'say' construction is problematic from an applicative verbal periphrasis perspective. Morphosyntactically, conversely to the previous constructions, 'say' is a converb in V1 position, following a dative-marked noun or pronoun, and the lexical verb is finite, in V2 position. This suggests a different grammaticalization path, from a quotative construction with an overt addressee in the dative case,³ and a different synchronic morphosyntactic analysis. The grammaticalized quotative converb functions more like a postposition following the dative argument than as an applicative verbal periphrasis.

- (11) Xamtanga (Darmon 2015: 195)
- Almaz Dawit-is y-ir qas'ijä-dyän-t k'iw-i-č*
 Almaz Dawit-DAT say-3SG.M[CVB] thief-DEF-ACC kill-PFV-3SG.F
 'Almaz killed the thief for Dawit.' (Lit. 'Almaz killed the thief saying to Dawit.')

The postpositional analysis is also favoured by the fact that the 'say' construction can combine with the 'leave' construction (12). In this case, the 1st person applied phrase is not left unexpressed as in (10), but is marked with a pronoun in the dative case.

³ The addressee of 'say' used as a quotative verb is also marked with the dative case (Darmon 2015: 324).

(12) Xamtanga (Darmon 2015: 199)

id k'äsäw iğir yiggis y-äw kir
 DEM.SG.M good.3SG.M man 1SG.DAT say-3SG.M[CVB] die[3SG.M.CVB]
bär-u
 leave-PFV[3SG.M]
 'That good man sacrificed himself for me.'

This is in line with Creissels's (2010: 61–62) analysis of similar constructions in Ethio-Semitic languages as being not inherently benefactive applicative periphrases.

2.2 North Cushitic

In Beja, nouns with the semantic role of beneficiary are only constructed with the directional postposition *dha:j* 'towards', which governs the genitive case, without any applicative marking on the verb. But when the benefactive argument is a pronoun, a periphrastic applicative construction with the (highly irregular) auxiliary verb *hi* 'give', the sole applicative auxiliary of the language, is used instead of the adjunct construction. Compared with the base construction, *hi* obligatorily licenses an additional argument (Vanhove 2017: 143), and can be used with both transitive (13–14) and intransitive verbs (15).

As a lexical verb, *hi* is a ditransitive verb, and if the recipient is a pronoun, the latter belongs to the bound set of object or possessive pronouns (depending on the verb paradigm) and is enclitic to 'give'.⁴ This morphosyntactic feature is kept for the applied phrase when 'give' is used as an applicative auxiliary. The Beja construction would thus be best described as an applicative lookalike.

The lexical verb, which precedes the auxiliary, is either the general (same subject) converb (13b), or a finite verb form (14b) (optionally followed by the—non-coordinating or subordinating—linker *-i* for the Perfective [15b]), which shares its subject with the lexical verb (Vanhove 2017: 143–144).

The beneficiary of the 'give' construction is mostly of the deputative type, expressing that an action is done on someone else's behalf.

⁴ Among hundreds of examples, there are only two where the pronominal recipient is followed by the directional postposition, or is an independent object pronoun.

(13) Beja

- a. *ʔabana:=t=o: i-dʔi*
 coffee=INDF.F=POSS.3SG.ACC 3SG.M-do\PFV
 ‘He made his coffee.’ (BEJ_MV_NARR_15_leopard_066)⁵
- b. *mhaj=t farti-ja dʔi-ti a-ni:w=ho:k*
 three=INDF.F line-PL do-CVB.GNRL 1SG-give\IPFV=2SG.OBJ
 ‘I’ll draw three lines for you.’ (BEJ_MV_NARR_06_foreigner_29)

(14) Beja

- a. *e:=mak a-gʷʔad*
 DEF.PL.M.ACC=donkey\PL 1SG-watch\PFV
 ‘I watched after the donkeys.’ (BEJ_MV_NARR_190_poorDonkeys_14)
- b. *e:=mak gʷʔad-a he:=ho:n*
 DEF.PL.M.ACC=donkey\PL watch-IMP.2SG.M give\IMP.2SG.M=1PL.OBJ
 ‘Watch after the donkeys for us!’ (BEJ_MV_NARR_190_poorDonkeys_11)

(15) Beja

- a. *ge:b=o:n tikʷ-i:ni*
 next=POSS.1PL.ACC go.down-IPFV.3SG
 ‘They go down next to us.’ (BEJ_MV_NARR_57_Ababda_246)
- b. *i=?ara:w=u:n dha:j tikʷ-ja-i*
 DEF.M=friend=POSS.1PL.NOM DIR go.down-PFV.3SG.M-LNK
i-he:=he:b
 3SG.M-give\PFV=1SG.OBJ
 ‘Our friend went down to him for me.’
 (BEJ_MV_NARR_43_hyena_man_042-044)

In a few instances, the ‘give’ construction has a plain beneficiary semantic role:

(16) Beja

- a. *ti=ʔʒhalaj fif-ti:t*
 DEF.F=coal\PL pour-CVB.SEQ
 ‘They poured the coal and. . .’ (BEJ_MV_NARR_42_hunter_bread_115)

⁵ The Beja examples are mostly extracted from Vanhove’s online corpus (2020b); the indications at the end of the free translation refer to the texts and prosodic units where they are found. In the glosses, \ signals stem alternation.

- b. *ɕa:hil-a* *i-ʔafif-n=e:k* *hala:wa:=t*
 small.child-PL 3SG.M-face.each.other\PFV-PL=if sweet\PL=INDEF
i-fif *i-hi*
 3SG.M-pour\PFV 3SG.M-give\PFV
 ‘When the small children met him, he poured sweets for them.’
 (BEJ_MV_NARR_12_witch_122-124)

A malefactive interpretation is possible only in negative utterances:

(17) Beja

- a. *ki=t-kan=he:b* *han*
 NEG.IPFV=2SG.M-know\MID.PFV=1SG.OBJ Q.PL
 ‘Don’t you know me?’ (BEJ_MV_NARR_31_king_40)
 b. *tak kan-ti* *hi-it=he:b* *i-rib*
 man know\MID-CVB.GNRL give-VN=1SG.OBJ 3SG.M-refuse\PFV
 ‘No one got information for me.’ (Lit. ‘a man refused giving me knowing’)
 (BEJ_MV_NARR_04_djinn_075)

The periphrastic construction can also be used, albeit rarely, to express a causal relationship between two events, another type of grammaticalization of benefactives (see Creissels 2010: 35–36 for examples in São-Tomense Creole and Yoruba). In (18), there is no bound object pronoun on the auxiliary because the 3rd persons of this set are zero morphemes:

(18) Beja

- ti=bʔafi* *ti-fbib* *o:=ja:s* *ti-fdin*
 DEF.F=fox 3SG.F-look\PFV DEF.SG.M.ACC=dog 3SG.F-move.away\PFV
tal-ta-i *t-hi*
 trot-PFV.3SG.F-LNK 3SG.F-give\PFV
 ‘The vixen looked at the dog and trotted away because of it (the dog).’ (BEJ_MV_NARR_50_fox_hunt_050-051)

3 Applicatives with preverbs

The verb forms of a number of Cushitic languages are made of two independent or, more often, clitic elements,⁶ consisting of a (partly) inflected lexical core, preceded by what some Cushiticists call a “selector” (e.g. Mous 2006: 306), defined as “an inflectional complex” in Mous (2016: 173). In this chapter, I will use “preverb” (also used by some authors) as a neutral cover term, since the smallest common denominator between all

⁶ Most often, cliticization is not represented in the transcriptions of the authors.

the languages concerned is that this inflectional element is obligatorily placed before the verb (although in some languages it may be separated from the verb by other elements, or cliticize to any preceding element).⁷ Preverbs may consist of only one morpheme, e.g. a special set of object pronoun, or be, more often, multimorphemic. However, the type and number of grammatical categories that can be marked and often stacked on preverbs vary across languages: subject, impersonal subject, object, sentence type (e.g. dependent or independent), focus, direction, TAM, and obliques (sometimes termed “case clitics”). In none of these languages do the preverbs bear all these grammatical categories. Among the thirteen languages with a preverb reported in Mous (2006: 306), I could identify nine with morphemes that are good candidates to be applicative (lookalike) markers: Alagwa, Arbore, Boni, Burunge, Dhaasanac, Elmolo, Iraqw, Rendille, and Somali.⁸

Diachronically, some of the morphemes composing the preverbs have stemmed from phonetically reduced subject pronouns (Banti 1997: 103–104), or, as in the case of applicative morphemes, they are cognate with instrumental, directional or dative postpositions (see e.g. Kießling 2001). It seems no preverbal morpheme has a verbal origin, unlike the auxiliary constructions in § 2.

3.1 East Cushitic: The Iraqw-Alagwa-Burunge cluster

Four preverbs contain morphemes used in constructions that meet the criteria of the definition proposed in the introductory chapter for applicative constructions, or are more of the lookalike type.

3.1.1 The instrumental applicative *-rar*

The applicative *-rar* (and its cognate forms), is the sole marker that has one and the same instrumental semantic role across the three languages.⁹

In the Iraqw example below, the peripheral argument of the base construction bears the instrumental postposition (19a), cognate with the applicative marker, while in

⁷ In addition to the idiosyncratic “selector”, preverbs have been termed in many various ways in Cushitic studies, such as “preverb”, “derivative prefix”, “indicator particle”, “focus particle”, “inflectional particle”, “prepositional particle”, “preverbal particle”, “Incorporated Object Prefix”, “adposition”, “auxiliary”, “be verb”, “case marker”, “case clitic”. Obviously, such a wealth of terminology does not ease cross-linguistic comparison, even within the Cushitic family.

⁸ This list is shorter than the ones provided in Mous (2006: 322) since what he labels as “dative” does not have an applicative function in all the languages he mentions.

⁹ A cognate preverb *ar-* is also found in Elmolo (Omo-Tana), but as a ventive and focus marker (Heine 1980a: 197). A possible applicative function is unclear.

(19b) the preverb stacks an object pronoun, a TAM marker, and the instrumental marker, while the noun does not bear the instrumental postposition. This construction is again an applicative lookalike.

(19) Iraqw

- a. *qaymo ga kurmo-’éen-ar doohl*
 field 3.OBJ:F.OBJ hoe-1.SG.POSS-INS dig:3.SG.M:PRS
 ‘He cultivates the field with my hoe.’ (Mous 1993: 245)
- b. *aníng kurmo u-na-rar dóohl*
 1SG hoe M.OBJ-PST-APPL.INS dig:1SG
 ‘I was digging with a hoe.’ (Mous 1993: 153)

Burunge also makes use of an instrumental-comitative preverbal marker *-ri*, and its grammatical allomorph (20b) *-r-*, cognate with the preposition *har*ⁱ ‘with, to, at’ (20a) (Kießling 1994: 171, 192–193). The base construction (20a) uses a different preverb.

(20) Burunge

- a. *’ana haati ’alung ki^a*
 1.SG 1/2.SBJ:FUT:SEP back return:1SG.IPFV
 ‘I will go all the way back to the starting point.’ (Kießling 1994: 237)
- b. *’ana ha-gu-r-aa ki^a ’ayaa-ge*
 1SG 1/2.SBJ-2SG.M.OBJ-APPL:COM-FUT return:1SG.IPFV house-ALL
 ‘I’ll go back home with you.’ (Kießling 1994: 172)

Alagwa illustrates a similar situation where the instrumental-comitative marker *-ra* on preverbs is cognate with the preposition *hara* ‘in, at, to, with’ (Mous 2016: 186, 211–215). (21) is the sole example in Mous’s grammar with this applicative marker stacked on the preverb, but there is no corresponding base construction. However, clauses with the cognate preposition before a noun do not use the preverb with the applicative marker (22). Since the preposition used in (21) is different from the cognate preposition, it might be the case that Alagwa has here a well-behaved applicative, according to Zúñiga and Creissels’s definition.

(21) Alagwa (Mous 2016: 186)

- nongo-ra ibüiti na hati hare téé-lo’*
 IPS.CONS.M.OBJ-APPL stay.3.M with relative wife F-heavy
 ‘And he was left with a pregnant woman.’

(22) Alagwa (Mous 2016: 252, 257)

- nanka máax hara du/i*
 CONS:IPS:F.OBJ smear with oil
 ‘And she was anointed with oil.’

3.1.2 The benefactive applicative *s(V)-*

Alagwa has an applicative marker *s-* which is prefixed to the preverb.¹⁰ The marker can be used for the addressee of a ‘say’ verb, the recipient argument of ‘give’ verbs, and as a benefactive device. As a benefactive, it is restricted to two contexts: when a nominal beneficiary precedes the verb and when it is a pronoun. When the lexical NP follows the verb, Alagwa uses instead the cognate preposition as in (25), i.e. an adjunct strategy (Kießling 1994: 171). Compare the preverbal applicative constructions where the pronominal applied phrase is the last suffix of the preverb in (23b), and a noun in (24b), here as the head of a relative clause, with the base constructions with less complex preverbs in (23a) and (24a). Only examples with transitive verbs were found. Could it be that the word order change operates as a different non-core coding of the applied phrase, or could the possible absence of the applied phrase in the base construction indicate that the corresponding applicative construction meets the criteria of Zúñiga and Creissels’s definition? Since no strict corresponding constructions were found in the grammar, the final answer is left open.

(23) Alagwa

- a. *qoo yawa k-i /agagin?*
 EMPH cattle IPS-N.OBJ eat:HAB:DUR:Q
 ‘Are cattle not eaten?’ (Mous 2001: 240, 245)
- b. *daankii si-k-i koonka /ag*
 then APPL:BEN-IPS-3PL chicken eat
 ‘And then a chicken was slaughtered for them.’ (Lit. ‘One ate for them a chicken.’)
 (Mous 2001: 131)

(24) Alagwa

- a. *ra’amu k-a ra’am-an na hek^u*
 song SUB-1/2 sing-1PL COP DEM1.PRO
 ‘The song that we sing is this one.’ (Mous 2001: 189)
- b. *hiru sa-k-a-n raa’ na heek^u*
 man.M APPL:BEN-SUB-1/2.SBJ-PFV sing.1SG COP DEM1.M
 ‘The man that I sang to is this one.’ (Mous 2016: 191)

(25) Alagwa (Kießling 1996: 37)

- kuu marée hhaab-it sa taatáà*
 2SG PROH inform-2SG APPL:BEN father
 ‘You don’t tell father!’

¹⁰ It is called “dative case marker” in Mous (2006: 322), and “beneficient selector prefix” in Mous (2016: 176).

A cognate applicative *sV-* (the vowel is subject to regressive assimilation) is used in Burunge (Kießling 1994: 169–171) (26b–27b). Unlike in Alagwa, the applied phrase is expressed twice, as an independent NP (pronouns in 26b and 27b) and prefixed on the preverb. Since the applied phrase cannot be expressed in the base construction, *sV-* can be viewed as a true applicative marker.

(26) Burunge (Kießling 1994: 170)

- a. *'ana ha-ga laahhama hhada*
 1SG 1/2.SBJ-3SG.F.OBJ put.up:1SG:IPFV stick
 'I put up a stick.'
- b. *'ana ugu su-gu laahhama hhada*
 1SG 2SG.M APPL:BEN-2SG.M.OBJ put.up:1SG:IPFV stick
 'I put up a stick (as a target) for you.'

(27) Burunge (Kießling 1994: 170)

- a. *'ina ha-gw-áa fūsi kooloo*
 3SG 1/2.SBJ-3SG.M.OBJ-PRET steal:3SG.M:PFV hoe
 'He stole a hoe.'
- b. *'ina 'ana si-n-áa-ni fūsi kooloo*
 3SG 1SG APPL:BEN-1SG.OBJ-PRET-VENT steal:3SG.M:PFV hoe
 'He stole a hoe for me.'

In Burunge, *sV-* can also be used with a causal value:

(28) Burunge (Kießling 1994: 171)

- taataa-gway 'idoo si-ni¹¹ qaase hing*
 father.M-POSS.1SG.M thing APPL:REAS-1SG.OBJ bury:1SG.SBJV 3SG:COMP
gwaai
 die:3SG.M:PFV
 'The reason why I bury my father is that he is dead.'

A cognate preverb *-s* (in final position on a preverb) / *sa-* when cliticizing to the verb, exists also in Iraqw as a suffix to the other preverbal elements. It has a causal value (29). Combined with the locative applicative *ni-* (§ 3.1.4.) on complex preverbs, *s(a)* marks the pronominal beneficiary of an intransitive verb (30a). Alternatively, it can be prefixed to the verb, without *ni-* (30b). *s(a)* is cognate with the reason case marker and the preposition *as* 'because' (Mous 1993: 102, 261–262). The exact applicative status is unclear.

¹¹ Kießling's example has *sugu*, obviously a typo, since this preverb corresponds to the applicative with a 2SG.OBJ.

- (29) Iraqw (Mous 1993: 153)
bar-ti-na-sa *caacaam-in*
 COND-IPS.1SG.OBJ-PST-REAS cry-DUR.3SG.M
 ‘If they were crying because of me.’
- (30) Iraqw (Mous 1993: 154)
 a. *ngu-s* *gadyúus*
 3.OBJ:APPL:LOC:M.OBJ-APPL:BEN work.1SG
 ‘I work for him.’ (Lit. ‘The reason I work is for him.’)
 b. *u* *sa-gadiyúus*
 3M.OBJ APPL:BEN-work.1SG
 ‘I work for him.’ (Lit. ‘The reason I work is him.’)

3.1.3 The locative applicative *ee*

For Alagwa, Mous (2016: 185–186) reports on a morpheme *ee*, that he labels “applicative” with a locative meaning. It can encliticize to the other preverbal elements, but can also be prefixed on verbs. The latter strategy is treated under the section about compound verbs (not derived verbs) in which Mous states that “[t]he applicative clitic can also fuse with the verb or adjective and lexicalise to a new verb often with a different and partly unpredictable meaning” (Mous 2016: 150–151), suggesting that the device as a verbal prefix is not very productive.

Only applicative constructions with intransitive verbs are exemplified: (31b) shows the use of *ee* prefixed to a motion verb, and (31c) as a clitic to the preverb, with a locative phrase which cannot be expressed in the base construction (31a), i.e. a true applicative; (32a) illustrates the applicative prefixed to a middle verb, and (32b) cliticized on the preverb. In (32a–b) no overt location is expressed, but the applicative implies that space is somehow involved; in this case the constructions may better qualify as applicative lookalikes.

- (31) Alagwa
 a. *ningi* *daaf*
 CONS:3 enter.3M
 ‘And he entered.’ (Mous 2016: 186)
 b. *ningi* *qoroo* *ee-daaf* *do’o-li*
 CONS:3 EMPH APPL:LOC-enter.3M house-in
 ‘And he entered the house / went inside.’
 c. *ning=ee* *qoroo* *daaf* *do’o-li*
 CONS:3=APPL:LOC EMPH enter.3M house-in
 ‘And he entered the house / went inside.’ (Mous 2016: 185)

(32) Alagwa (Mous 2016: 185)

- a. *hadithi-r-i i-ni asa ee-fak-it*
 story-F-POSS.1SG 3-PRF already APPL:LOC-finish-MID
 ‘My story finishes here.’
- b. *hadithi-r-i i-n=ee fak-itⁱ*
 story-F-POSS.1SG 3-PRF=APPL:LOC finish-MID.PRS.3SG.M¹²
 ‘My story is finished.’

Mous mentions that *ee* is compatible with the *s-* applicative preverb (§ 3.13) only if space is involved. In the sole example provided, *ee* is prefixed to the verb:

(33) Alagwa (Mous 2016: 186)

- s-oo fa/a ee-qaas*
 APPL:BEN-M.OBJ mash APPL:LOC-put
 ‘I will provide mash for you.’

Although not mentioned in the list of prepositions (Mous 2016: 211), it seems, judging by the sole example I found in the texts, that *ee* may also function as a preposition, doubling the allative case of the noun:

(34) Alagwa (Mous 2016: 253, 257)

- kimaa in nanga xab ee mfalmee-li, xwaylá-s*
 then 3SG CONS:F.OBJ marry APPL king-ALL child-DEM2
 ‘Then she was married to the king, that child.’

No cognate form of this applicative is reported for the other two languages.

3.1.4 The locative and benefactive applicative *ni*

The three languages of this group have a marker *ni* (and its cognate forms)—labelled “hither” in Iraqw, “ventive” in Alagwa and Burunge—for which an applicative analysis can be considered.

In Burunge, this morpheme, which is the last element of the preverb, is described in terms of pragmatics:

Das Ventivmorphem {ni} im Flexionskomplex zeigt an, daß die Handlung auf ein zuvor etabliertes Aufmerksamkeitszentrum gerichtet ist. Dieses Zentrum fällt im alltäglichen Diskurs in der Regel mit dem Standpunkt des Sprechers zusammen. In einer fortlaufenden Erzählung wird der Ventiv

¹² The two examples with *fakit* and *fakitⁱ* are simply glossed ‘finish’ by Mous; I have restored the full glossing.

meist auf die Person des Hauptakteurs bezogen. [The ventive morpheme {ni} in the inflectional complex indicates that the action is directed toward a previously established center of attention. In everyday discourse, this center usually coincides with the speaker's point of view. In a continuous narrative, the ventive usually refers to the person of the main actor.] (Kießling 1994: 166)

The construction is used with intransitive (35b) and transitive (36b) verbs to mark a proximal locative meaning. (37b) is a case where the construction refers “to the person of the main actor”. Since there is no applied phrase, *ni-* is better analyzed as an applicative lookalike.

(35) Burunge (Kießling 1994: 166)

- a. 'ugu haa ki/id^a
 2SG.M 1/2.SBJ:FUT1 return.2SG.IPFV
 'You will return.'
- b. 'ugu haa-ni ki/id^a
 2SG.M 1/2.SBJ:FUT1-APPL:LOC return.2SG.IPFV
 'You will return here.'

(36) Burunge (Kießling 1994: 166)

- a. 'ana haa satisⁱ fa/a
 1SG 1/2.SBJ:PRET move:CAUS:1SG.PFV porridge
 'I moved the porridge (there).'
- b. 'ana haa-ni satisⁱ fa/a
 1SG 1/2.SBJ:PRET-APPL:LOC move:CAUS:1SG.PFV porridge
 'I moved the porridge here.'

(37) Burunge (Kießling 1994: 224)

- a. /anta dagáa tipⁱ harⁱ qoro'u
 termite.mound IPS:3SG.F.OBJ:PRET cover.3SG.M.PFV with dry.leaves
 sa hiica/a da Laa'ay
 for escape SUB.F Laa'ay
 'The termite mound was prepared with dry leaves for Laa'ay's escape.'
- b. /anta higáa-ni tipⁱ harⁱ
 termite.mound 3.SBJ:3SG.F.OBJ:PRET-APPL:BEN cover.3SG.M.PFV with
 qoro'u sa hiica/adosi
 dry.leaves for escape:F:POSS.3SG
 'He covered the termite mound with dry leaves for his escape.'

Alagwa has a marker *n-*, which, similarly to its Burunge cognate, is used for ventive actions relative to the *hinc et nunc* (Mous 2016: 179), as well as with 'give' verbs. I found one example in Mous's texts which could be interpreted as a benefactive:

- (38) Alagwa (Mous 2016: 253, 257)
haa'uw n-í hhútlit
 come.IMP OPT:APPL:BEN-SG.F.OBJ.2 plait:1SG
 'Come let me braid your hair!' (Lit. 'Let me braid to you.')

In Iraqw, *n(i-)*, which is the first morpheme of the preverb, is used, among others, for recipients of 'give' verbs and addressees of 'say' verbs, and as a directional with motion verbs (Mous 1993: 134–136). It also has the same pragmatic functions as in Burunge and Alagwa, and can mark the pronominal beneficiary of transitive verbs (39b–40b), thus behaving as a benefactive applicative. First person beneficiaries are unexpressed (41b).

- (39) Iraqw (Mous 1993: 136)
 a. *aníng kurmo u tlaaxw*
 1SG hoe(M) M.OBJ buy:1SG
 'T'll buy a hoe.'
 b. *aníng kurmo ngu tlaaxw*
 1SG hoe(M) 3.OBJ:APPL:M.OBJ¹³ buy:1SG
 'T'll buy him a hoe.'
- (40) Iraqw (Mous 1993: 136)
 a. *da'angw gu-na óo'*
 song(M) 3.OBJ:M.OBJ-PST sing:3SG.M.PST
 'He sang a song.'
 b. *da'angw ngu-na di-r-ós-i ó'*
 song(M) 3.OBJ:APPL:M.OBJ-PST place-F-3SG.POSS-DIR¹⁴ sing:2SG.M
 'You sang a song for him.'
- (41) Iraqw
 a. *garma gu-na barwadu leehha-r-wa yacaaw*
 boy(M) 3.OBJ:M.OBJ-PST letters catching-F-ABL send:3.SG.M
 'He sent a boy to get the letters.' (Mous 1993: 271)
 b. *garma u-na ya'aaw imboru barwadu ngi-wa*
 boy(M) M.OBJ-PST send:1SG Mbulu letters 3.OBJ:APPL:N.OBJ-BCKG
 oh-i
 catch-3SG.M:SBJV
 'I sent a boy to Mbulu to collect letters for me.' (Mous 1993: 132)

¹³ There is a typo in Mous's glossing which reads "DEPS.1.SG:O.M".

¹⁴ Motion verbs and 'say' verbs often require the use of the feminine place noun *dí-r* with the directional suffix *-i* (Mous 1993: 99).

3.2 Omo-Tana

3.2.1 The applicative *ka/ká*

In Elmolo, there is an applicative preverb *ka* (also a dative with ‘give’ verbs [43]), which either cliticizes to the verb (42b, 43a), or is separated from it by a direct object (43b). The *ka*-preverb, which follows the subject index and TAM affixes, marks a benefactive with animates (42b), an instrumental with inanimates (42c), and a locative with ablative phrases (42d) (Heine 1980a: 197). Only with the latter meaning does the applied phrase occur with a non-core marking, but no corresponding base construction was found.

(42) Elmolo (Heine 1980a: 197)

- a. *yesé mín ’án-dís-a*
1SG house 1SG-build-IPFV
‘I build a house.’
- b. *yesé mín h’эле аη-ка-dis-a*
1SG house children 1SG-APPL:BEN-build-IPFV
‘I build a house for the children.’
- c. *yesé mín elle áη-k’a-dís-a*
1SG house stones 1SG-APPL:INS-build-IPFV
‘I build a house with stones.’
- d. *yesé mín-lu áη-ка-пé-e*
1SG house-ABL 1SG-APPL:LOC-get.out-IPFV
‘I (shall) get out of the house.’

(43) Elmolo (Heine 1980a: 196–197)

- a. *yesé núúm h’эле an-’áη-ka-koon-e*
1SG food children 1SG-PFV-APPL:BEN-bring-PFV
- b. *yesé núúm an-’áη-ka h’эле koon-e*
1SG food 1SG-PFV-APPL:BEN children bring-PFV
‘I brought the children food.’

When the applied phrase is a pronoun, it belongs to a special set of bound object pronouns (Heine 1980a: 197), different from independent object pronouns (*kesé* or *kéló* for 2SG.OBJ vs. *éké-* with the applicative in [44]):

(44) Elmolo (Heine 1980a: 197)

- isé dáfárné éké-ka-waak-as*
she dress 2SG.OBJ-APPL:BEN-sew-IPFV
‘She sews a dress for you.’

For Arbore, Mous (2006: 322) mentions an applicative preverb *ka* but does not provide examples. It covers ablative (source), dative (beneficiary), locative and directional

meanings. There is unfortunately only one example in Hayward's (1984) grammar, with a beneficiary semantic role, in the following relative clause:

(45) Arbore (Hayward 1984: 312)

náag gidiká mod áha-ttóy naag ka dá-w?w-elo
 boy then those people-3SG.M girl APPL beg-PFV-DEF
?ay ka hóǵǵeta
 3SG.M.IND.INDF¹⁵ APPL:BEN work:IPFV:3SG.M
 'Then the boy will work for those people who asked for the girl for (him).'

The second occurrence of *ka* is analyzable as a suffix of the complex preverb *?ay* which merges a person index and a TAM marker, while the first occurrence could be interpreted as a postposition, since cognates of *ka* are numerous in Cushitic as case markers or postpositions, with either ablative, locative, comparative, instrumental or dative functions (Appleyard 1990: 28). It could be that both constructions as a dative postposition and an applicative preverbal element coexist in Arbore.

In any case, the related *ka* morpheme of Rendille is analyzed by Pillinger and Galboran (1999) as both a postposition with ablative, instrumental, and directional meanings, when following directly a noun (46a), and as an applicative instrumental preverb when preceding a verb (46b). Judging by the translations, pragmatics may be involved in the choice of one or the other construction.

(46) Rendille (Pillinger and Galboran 1999: 28)

- a. *wúl ká ínam jahe*
 stick with DEF.boy 3SG.M.hit
 'It was with a stick that he hit the boy.'
- b. *wúl ínam á-ká-jahe.*
 stick DEF.boy FOC-APPL:INS-3SG.M.hit
 'He hit the boy with a stick.'

Heine (1980b) provides an example with an ablative reading:

(47) Rendille (Heine 1980b: 238)

- a. *usu ayimi*
 he came
 'He has come.'

¹⁵ Glossing is mine. *?ay* is simply glossed as 3SG.M by Hayward. *?ay* is not in his list of pronouns, but it is duly reported as a "selector" of "3SG indicative indefinite" (p. 109).

- b. *usu min-é ka-yimi*
 he house-FOC APPL:ABL-came
 'He has come from the house.'

The syntactic status of the Dhaasanac cognate morpheme *ká* is debated, and it is unclear whether it marks an adjunct strategy or a preverbal strategy: Sasse (1976: 209) and Mous (2006) analyze *ká* as a preverbal element, while Tosco (2001: 232–233, 259–261) is more in favour of considering it an allative postposition.¹⁶ According to Tosco, *ká* occurs in a fixed position, immediately before the verb, and follows directly a noun, to which it is suffixed (even though he always transcribes *ká* as an independent word), except when the noun is topicalized. Two arguments, duly mentioned by Tosco, could support the preverbal analysis: (i) when the noun is topicalized, *ká* stays in its preverbal position; (ii) object pronouns following the focus marker license a special set of “verbal pronouns” directly preceding *ká*.

However, it might be the case that both analyses hold. There is one indisputable case of a postpositional behaviour in one example (48) in Tosco’s texts in which *ká* is separated from the verb by a direct object noun, thus breaking the rule of verbal adjacency.

- (48) Dhaasanac (Tosco 2001: 317–318)
mé ká fás gaa ruut
 head to blood have.PRF goat
 ‘The he-goat had blood on its head.’

Apart from its use as an allative and dative marker with motion and ‘give’ verbs, there is one example of *ká* with an intransitive middle verb which might be interpreted as an applicative construction, but there are no other examples of this verb or similar constructions to confirm this interpretation.

- (49) Dhaasanac (Tosco 2001: 260)
diidic ^ha ^hí ká raaða
 dung.beetle FOC VPRO.3.OBJ APPL? take.by.surprise.MID.IPV
 ‘The dung-beetle takes him by surprise.’

¹⁶ This disagreement is also the case for the other preverbal elements of Dhaasanac in the following sections.

3.2.2 The applicative *í-/ú/u*

Tunni (a dialect of Somali), has an applicative preverb *í*, with several grammatical allomorphs depending on the pronoun it combines with. It has directional and dative meanings with motion, ‘give’, and ‘say’ verbs, and has a benefactive interpretation with transitive (50b–51) and intransitive verbs (52). It always precedes the verb, whatever the position of the applied phrase. It can combine with the other applicative preverbs (51). No corresponding base constructions were found.

(50) Tunni

- a. *áy sagáar[a] árrabkíi kú qáata a soo nágt*
 Mrs. dikdik:ART tongue:M.ANP from take:3F JUSS here give.back:3F
 ‘Let Mrs. Dikdik, who took his tongue from him, give it back.’ (Tosco 1997: 158)
- b. *isín beesódán n-oo-kú taabtèen*
 2PL money:F:PROX 1PL-APPL:BEN-ABL take.2PL
 ‘You took this money from him for us.’ (Tosco 1997: 110)

(51) Tunni (Tosco 1997: 108)

- rúbbunkán sóorta i-i-kí laabàayt*
 spoon.M:ART food.F:ART 1SG.OBJ-APPL:BEN-APPL:INS stir:PROG:2SG
 ‘You are stirring the food for me with this spoon.’

(52) Tunni (Tosco 1997: 160–162)

- áw Mayow hidáa má kíi róon[o]*
 Aw Mayow so NEG 2SG:APPL:BEN be.good
 ‘Aw Mayow, this is not good for you.’

In Standard Somali, the cognate applicative preverb is *-u*, and it is structurally similar (with minor differences) to Tunni. No corresponding base constructions were found.

(53) Standard Somali (Biber 1984: 49)

- Cabdi nin-ka b-uu suuq-a u-tagay*
 Abdi man-ART FOC-3SG market-ART APPL:BEN.3SG-go.to.PFV
 ‘Abdi went for the man to the market.’

Boni as described by Sasse (1981: 257) has a cognate applicative preverb *ú-*, which is a well-behaved applicative since no counterpart of the applied phrase can occur in the base construction.

(54) Boni (Sasse 1981: 277)

- a. *fíli kadi*
 comb bought
 'He bought a comb.'
- b. *hác-hablo fíli ú-kadi*
 girl-DEF comb APPL:BEN.3SG-buy.PFV
 'He bought a comb for the girl.'

In Dhaasanac, notwithstanding the issue of the exact morphosyntactic status of preverbal elements in this language (see § 3.2.1), *(k)í*, one of Tosco's "core adpositions", has three readings: dative, benefactive (55b), and instrumental (56). The preverb can encliticize to any preceding word; in such a case, the initial *k* is dropped.

(55) Dhaasanac

- a. *yáa bie ?oŋolic fii*
 1SG.SBJ water calabash pour.PFV
 'I poured water in the calabash.' (Tosco 2001: 259)
- b. *bie dáat ^ha yú ko (k)í fafaa*
 water calabash FOC 1SG 2SG.OBJ APPL:BEN pour.RDP.IPFV
 'I'll pour for you water in the calabash.' (Tosco 2001: 237)

(56) Dhaasanac (Tosco 2001: 233)

- gáal ?éðe húol=í tuni*
 people guns REFL=APPL:INS hit.PFV
 'People fought (each other) with guns.'

Rendille uses an applicative preverb *í-* (for 1st and 3rd oblique pronouns) and *kí-* (for 2nd oblique pronouns).¹⁷ Those preverbs differ from the bound direct object pronouns, which have low tones (57a). Heine (1980b: 238) only mentions the *í-* form.¹⁸ This applicative construction is used with both transitive (57b) and intransitive verbs (58b), with a benefactive interpretation.

(57) Rendille (Pillinger and Galboran 1999: 29)

- a. *usú i'-helé / kí'-helé*
 3SG.M.FOC 1SG.OBJ-find.PFV 2SG.OBJ-find.PFV
 'He's the one who found me/you.'

¹⁷ They are labelled "incorporated object prefixes" by Pillinger and Galboran (1999: 29).

¹⁸ Heine labels it a "verbal extension".

- (62) Standard Somali (Biber 1984: 50)

Cabdi b-uu Cali geela ka-la-dhacay
 Abdi FOC-3SG.M Ali camels ABL-APPL:COM-rob.PFV.3SG.M
 ‘He robbed some camels from Ali together with Abdi.’

Rendille *leé-* may also be a cognate preverb, but the sole example—*leejira* ‘be with (someone)’, cf. *jira* ‘be, live’—and the comments in Pillinger and Galboran (1999: 29) are too sketchy to be sure.

4 Applicative derivation

Kießling (1984: 94) mentions a derived applicative verb form in Burunge marked by the prefix *hii-/hay-*, which “zeigt an, daß die Handlung in Bezug auf ein Objekt, im Hinblick auf ein bestimmtes Ergebnis oder in Richtung auf ein bestimmtes Ziel hin unternommen wird” [indicates that the action is taken with respect to an object, with respect to a particular result, or toward a particular goal]. He provides a short first list of base forms with their corresponding applicative forms, and longer lists of applicatives with “specialized semantics” and fossilized forms. Utterances with only two intransitive verbs of the first list could be found in his grammar. In (63b) the applied phrase keeps its non-core marking, and there is no applied phrase in (64); the construction is thus better viewed as an applicative lookalike with ventive semantics.

- (63) Burunge

- a. *kalaamay ma gesaa day 'ayaage*
 better CONS-1/2.SBJ first come.1SG.PFV house:ALL
 ‘It is better I go home first.’ (Kießling 1984: 227)
- b. *higi hii-day maraage*
 3.SBJ:SEQ APPL-come:3SG.M:PFV:DECL house:ALL
 ‘And he entered into the house.’ (Kießling 1984: 266)

- (64) Burunge (Kießling 1984: 218)

yee dahagway hoo malaalee hii-tlayda
 VOC:M guest:M:POSS.1SG 1/2.SBJ:PROS when APPL-stand:2SG:IPFV
 ‘Oh my dearest, when will you rise?’

Kießling (1994: 94) relates the applicative prefix to a few fossilized verb forms with a prefix *ii-/in-* in Iraqw, which Mous (1994: 199) tentatively relates to the Iraqw directive case marker *-i*. Kießling (1994: 109) also reports on a malefactive derived verb with a prefix *'afa-*, which only occurs with some lexicalized items, not as a productive device.

5 Dative doubling in Oromo: A possible lookalike?

Oromo uses an adjunct strategy with a dative case that marks the beneficiary. In addition, in both the Wollegga and Harar dialects, the dative case may occur twice, obligatorily on the beneficiary and optionally on the verb, after the inflectional morpheme:

- (65) Oromo (Wollega dialect; Girma Mengistu Desta, p.c.)

ani ilma-koo-f konkolaataa=n bit-e(-ef)
 1SG son-POSS.1SG-DAT car=1SG.SBJ buy-PFV-DAT
 ‘I bought a car for my son.’

- (66) Oromo (Harar dialect; Owens 1985: 119)

sheex-nii isaaf-f hiddá heezabée-f
 sheikh-NOM 3SG.OBJ-DAT medicine prescribe-DAT
 ‘The Sheikh prescribed some (native) medicine for him.’

The construction with repetition of dative marking on the verb can be viewed as an applicative lookalike that might constitute the initial stage of a grammaticalization process towards a suffixal applicative strategy.

6 Conclusion

In what follows, I recapitulate the above analyses, trying to answer as best as I possibly can the questions asked in the questionnaire about the morphology, syntax, and semantics of applicative constructions, as well as the issue of lookalikes.

Morphology

- The survey of applicative constructions in eleven Cushitic languages showed that the preverb strategy is more widespread than the auxiliary strategy (9/11 vs. 2/11 languages), and that verbal derivation is highly marginal in the sole language that uses it. Although there is a good number of commonalities, each language has developed its own system.
- Two main types of preverbs are attested: (i) preverbs, often clitics, which can bear TAM markers (the Iraqw-Alagwa-Burunge cluster, and two Omo-Tana languages, Elmolo, and probably also Arbore); and (ii) preverbs, also often clitics, that cannot: all Omo-Tana languages, except Tunni. Therefore, this bi-partition corresponds only partly to the genealogical subgroupings. Most applicative preverbs have stemmed from adpositions. However, degrees of grammaticalization seem to vary across languages, although it is not always easy or feasible to assess them from the available grammars. For instance, no examples of applied lexical phrases were found for some markers in Iraqw, Burunge, Alagwa, Arbore, Tunni and Dhaasanac, but the

descriptions rarely specify whether they are licensed or not, except for Alagwa, where the applicative *s-* is said to be restricted to pronominal applied phrases and to nouns in preverbal position. Descriptions do not mention either possible polarity restrictions, but one negative example (52) was found in Tunni.

- As for the two languages with auxiliaries, Xamtanga and Beja, both share the ‘give’ strategy, but only the former has in addition a ‘leave’ strategy. In Xamtanga they always combine with a preceding lexical verb in the converb form, while in Beja, finite lexical verbs are also licensed. There are limitations to their grammaticalized status. In both Xamtanga and Beja, the auxiliaries cannot co-occur with themselves as lexical verbs. On the other hand, examples show that applicativization is compatible with the negative polarity in Beja, while it not the case in Xamtanga (Darmon 2015: 196). In Beja, the periphrastic applicative construction is limited to pronominal applicative phrases. Conversely, Xamtanga provides no examples with pronouns, but this issue is not discussed.
- Verbal derivation, with a prefix, is limited to one of the applicative constructions of Burunge and does not seem very productive.
- Allomorphy is attested in six languages with the preverb strategy for some applicative morphemes. In most cases allomorphy is grammatically conditioned (by the presence of bound pronouns and/or other preverbal elements), in a few others it is due to phonological processes of vowel harmony or cliticization.
- In all languages, applicativized verbs show comparable inflectional paradigms to those of their base counterparts.

Syntax

- In most cases, the applied phrase is a P. With the preverbal strategy, P may belong to a special set of bound object pronouns. In some languages, it is an X, usually a dative, as in Xamtanga, rarely an adpositional phrase.
- Depending on the language, and the marker, the syntactic status of the applied phrase’s companion arguments or adjuncts may change or not between the base constructions and the applicative construction. In the languages with the preverb strategy, the applied phrase is mostly not marked with an adposition, contrary to the base construction, or it combines with different preverbal elements than in the base construction. However, with some preverbs, the adposition or case is kept in the applicative construction. In Xamtanga, the dative case applies to both constructions, but there is an optional alternation with the accusative case with the auxiliary *bār-* ‘leave, abandon’. Beja retains the object marking of the beneficiary in the applicative construction.
- In the descriptions, little is mentioned about voice operations which can combine with applicativization, but sporadic examples are found. Such is the case with the causative and the middle forms in Beja. Conversely, the Xamtanga applicative ‘give’ construction is incompatible with the causative and the mediopassive (Darmon

2015: 196). In Alagwa and Tunni, the applicative preverbs are used with an impersonal subject (a passive lookalike). In some languages, there are very few examples of applied phrases with reflexive and reciprocals.

- In Beja, the applied construction is a special subset of a ditransitive.
- From the available descriptions, it is difficult to know how rigid or flexible the assignment of case or agreement frames to applied constructions is when compared to base constructions, but my general impression is that it is rigid.
- It seems that applicativization does not condition the access of non-core syntactic arguments to operations such as relativization or focalization (several examples in relative clauses, clefts, and with focus markers are mentioned for Alagwa, Arbore, Dhaasanac, Rendille, and Somali, and this is also the case for relativization in Beja).

Semantics

- Although Cushitic languages do not have all-purpose applicative constructions comparable to the Bantu applicative using *-*id* (Pacchiarotti, this volume), it is possible to distinguish two types of applicative (or applicative lookalike) markers, some being more semantically specialized than others. The highly specialized ones are the following: *-rar* is instrumental in Iraqw (and comitative with animate applied phrases in Burunge and Alagwa); *s(V)-* is benefactive in Alagwa; *ni* is ventive in Burunge; *i/ú/u* is benefactive in Tunni, Boni, and Rendille; *íl/la* is comitative in Tunni and Standard Somali; and the ‘give’ auxiliary is benefactive in Xamtanga. On the other hand, descriptions rarely specify whether the applicative construction is limited or not to transitive or intransitive verbs. A restriction to transitive verbs is specifically mentioned for the *yíw* ‘give’ auxiliary construction in Xamtanga, and the absence of valency restrictions is the case in Beja, as well as for part of the markers of the other languages. However, the absence of one verb type or the other for some markers in Iraqw, Alagwa, and Burunge may be just due to a gap in the documentation.
- The most frequent semantic interpretation of applied phrases is benefactive, then instrumental(-comitative), and finally locative (ventive, ablative). Malefactive (Xamtanga, Beja) and causal (Burunge, Beja) are marginal.
- From the available data, it is difficult to assess whether there are semantic roles that can only be expressed by means of an applicative construction for each language. At most, some applied phrase cannot occur in the corresponding base constructions. This is the case for the locative in Alagwa with the preverb *ee-*, for the benefactive with *ú-* in Boni, and for the benefactive, instrumental and locative with *ka-* in Elmolo.
- With the exception of Xamtanga, where affectedness is specific to the benefactive construction, as opposed to the base construction, nothing in the descriptions shows that there is a semantic difference between the applied phrase and its counterpart in the base construction. Once again, this may be due to gaps in the documentation.

- In four languages—Burunge, Alagwa, Iraqw for the *ni*-applicative, and Rendille for the *ka*-applicative—the comments of the authors show that there is a pragmatic difference between the applied phrase and its counterpart in the base construction, but the exact link with focus or topic is often unclear. Dhaasanac may also be a case where pragmatics plays a role, for all applicative preverbs, if Tosco's analysis in terms of topicalization of the applied phrase is correct.
- Xamtanga is the sole language where discourse-sensitive specificity of the applicative construction is mentioned. The *yiw* 'give' auxiliary construction adds a specific engager / discourse prominent recipient-like semantic role to the dative argument.

Lookalikes

- In the Cushitic languages studied, there is always an applicative marking on the verb. However, if one sticks to the third criteria of the definition of applicative constructions proposed in Zúñiga and Creissels (this volume), which requires a non-core marking on the applied phrase different from its non-core marking in the base construction, then most of the constructions are lookalikes. Additionally, the morphemes for which an applicative analysis can be considered, at least in some constructions, are often also found in constructions in which no applied phrase can be identified. They are best analyzed as directionals.
- The case of Oromo is different, and, in some respects, reminiscent of the situation found in Amharic (Ethio-Semitic), although not entirely identical (Amberber, this volume). In Oromo, an adjunct strategy with a dative case, marking the applied phrase, is the rule. Optionally the dative case can also occur suffixed on the verb, which may be an incipient grammaticalization towards a suffixal applicative construction.
- Historical or comparative data are lacking, which makes it difficult to assess whether some markers may have turned from erstwhile applicatives into strictly valency-neutral markers, but synchronic data does not seem to point in this direction.

Abbreviations

ABL	ablative	COND	conditional
ACC	accusative	CONS	consecutive
ALL	allative	COP	copula
ANP	anaphoric	CVB	converb
APPL	applicative	DAT	dative
ART	article	DECL	declarative
BEN	benefactive	DEF	definite
BCKG	background	DEM	demonstrative
CAUS	causative	DIR	directional
COM	comitative	DUR	durative
COMP	completive	EMPH	emphatic

EP	epenthetic vowel	PFV	perfective
F	feminine	PL	plural
FOC	focus marker	PLR	polar
FUT	future	POSS	possessive
GEN	genitive	PRET	preterit
GNRL	general	PRF	perfect
HAB	habitual	PRO	pronoun
HEAD	head agreement	PROG	progressive
IMP	imperative	PROH	prohibitive
IND	indicative	PROS	prospective
INDF	indefinite	PROX	proximal
INS	instrumental	PRS	present
INTRJ	interjection	PST	past
IPS	impersonal subject	Q	question
IPFV	imperfective	RDP	reduplication
JUSS	jussive	REAS	reason
LNK	linker	REFL	reflexive
LOC	locative	SBJ	subject
MEDP	medio-passive	SBJV	subjunctive
MID	middle	SEP	separative-intrusive
MULCL	multifunctional clitic	SEQ	sequential
N	neuter	SG	singular
NEG	negative	SUB	subordinator
NMLZ	nominalizer	SBJ	subject
NOM	nominative	VENT	ventive
NPST	non-past	VN	verbo-nominal
OBJ	object	VOC	vocative
OPT	optative	VPRO	verbal pronoun

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25 Applicative constructions in the Northwest Caucasian languages

Abstract: This chapter describes applicative constructions in the polysynthetic Northwest Caucasian languages, which are typologically unusual in several respects. First, these languages possess an extraordinarily rich system of applicatives whose semantic functions range from benefactive, comitative and malefactive to fairly specialized spatial meanings. Second, the Northwest Caucasian applicatives invariably introduce indirect objects, thus almost never affecting the ergative-absolutive alignment of core arguments and serving as important and often only means of integrating peripheral participants into clausal structure. We describe the morphology, syntax and semantics of applicatives, as well as a range of non-trivial phenomena such as the semantically impoverished and morphosyntactically special “dative” applicative and the uses of applicatives in agent demotion and clause combining.

1 Introduction

This chapter describes applicative constructions in the Northwest Caucasian (NWC) languages. NWC is interesting and instructive for the typology of applicative constructions for at least two reasons:

- these languages possess extraordinarily rich systems of applicative markers whose semantics ranges from the cross-linguistically common benefactive and comitative applicatives to applicatives with fairly specialized spatial meanings, and
- the NWC applicatives differ from canonical applicatives as discussed, for example, by Peterson (2007) in many respects, most notably in that the syntactic status of the AppP in NWC is indirect rather than direct object and that applicatives serve as important and often only means of integrating peripheral participants into clausal structure.

Applicatives in NWC languages are relatively well described. This survey is based mostly on our own fieldwork, but we also use data from various other sources, in particular, Smeets (1992), Paris (1987), Lomtadze (1976), O’Herin (2001), Letuchiy (2009), Fell

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(2012), Ponomareva (2013) and Chirikba (2020). For the sake of exposition, we illustrate the system primarily with examples from West Circassian, a language for which we have more detailed data and can use large corpora, but add examples from some other NWC languages to illustrate the parallel or distinct behavior. Whenever unmarked, examples come from corpora (Arkhangelskiy et al. 2018–2022; Bagirokova et al. 2020; Arkadiev et al. 2020; Panova et al. 2019), examples elicited or taken from other sources are marked as such.

The structure of this chapter is as follows. Section 2 provides the necessary background on NWC languages. In Section 3 we discuss morphological and syntactic aspects of applicative constructions in these languages. Section 4 is devoted to the semantic diversity of grammatical and locative applicatives, while Section 5 deals with dative applicatives, which show specific behavior. Section 6 focuses on the morpheme order in forms containing multiple applicatives. In Section 7 we touch upon non-applicative functions of applicatives, while in Section 8 we look at a phenomenon that is functionally similar to applicatives but is not related to the grammatical subsystem discussed here. The last section summarizes the main typological characteristics of NWC applicatives.

2 Background on Northwest Caucasian languages

2.1 General information

The NWC (or Abkhaz-Adyghean) family is one of the three autochthonous language families of the Caucasus (for a general background on NWC, see Hewitt 2005 and Arkadiev and Lander 2020). It comprises at least four living languages, namely Abkhaz (ISO 639–3: *abk*) and Abaza (*abq*), which constitute the Abkhaz-Abaza branch, and West Circassian (also known as *Adyghe*, *ady*) and Kabardian (sometimes called *East Circassian*, *kbd*), which constitute the Circassian branch. In addition, there is one extinct NWC language which has been thoroughly documented (though from few speakers) in the 20th century, namely *Ubykh* (*uby*), which is usually thought to be closer to Circassian languages than to Abkhaz-Abaza.

Originally, NWC languages were spoken in the West Caucasus: to the South of the Greater Caucasus Mountains in the territory of the Republic of Abkhazia and to the North of the mountains in the now territories of several regions belonging to the Russian Federation, namely *Krasnodarskiy Kraj*, *Adyghe*, *Karachaevo-Cherkessia* and *Kabardino-Balkaria*. In the 19th century, however, when these lands were occupied by the Russian Empire as a result of the Caucasian War, most speakers of NWC languages migrated into the Ottoman Empire, and the remaining speakers were resettled into a number of disconnected areas. As a result, currently there is also a large diaspora which uses NWC languages (but to different extents) in Turkey, Syria, Jordan, and Israel.

The sociolinguistic situation of the NWC languages is ambivalent. On the one hand, Abkhaz is the state language of Abkhazia, and West Circassian, Kabardian and Abaza are recognized as official languages with written standards and some presence in the media and education in the Russian republics of Adygea, Karachaevo-Cherkessia and Kabardino-Balkaria. On the other hand, both in Russia and in Abkhazia all NWC languages experience pressure from Russian, and their use is largely limited to rural areas and informal settings. Most if not all speakers of NWC languages in Russia and Abkhazia are bilingual in Russian, and for the younger generations Russian is becoming the dominant language. Bilingualism and/or the shift to a dominant language is also the norm in the diaspora, where the sociolinguistic situation varies from good and stable (e.g., among Circassians in Israel) to the complete language shift (e.g., in many communities in Turkey).

2.2 Basics of morphosyntax

NWC languages are generally characterized as polysynthetic, both prefixing and suffixing, ergative (morphologically but possibly also syntactically), predominantly head- (Abkhaz-Abaza) or double-marking (Circassian and Ubykh). Further, the languages are consistently left-branching, i.e. have possessors preceding the possessa, postpositions rather than prepositions and the basic Actor-Undergoer-Predicate word order. Example (1) illustrates some of these features: here we find two noun phrases marked with an “oblique” case expressing an ergative and an indirect object arguments, an absolutive noun phrase and a polysynthetic predicate whose morphology indexes (at least) two arguments.

(1) West Circassian

djeʒe-m djeʒe-m mæʃe-r Ø-r-j-e-ʁe-wəʒʔə
 fool-OBL fool-OBL bear-ABS 3SG.IO-DAT-3SG.ERG-DYN-CAUS-kill
 ‘A fool makes a fool kill a bear.’

The core of the clause is constituted by the predicate, which includes indexing of up to four (in Abkhaz, Abaza and Ubykh) or probably even more (in Circassian languages) participants primarily expressed by prefixes; some 3rd person prefixes in some languages are null. All content words may serve as predicates and take predicate morphology, hence the distinction between nouns and verbs in this position is very weak, if exists at all; therefore, we prefer to use the term ‘predicate’ rather than ‘verb’. Much more important for the morphology is the distinction between stative and dynamic predicates, the former class including both noun-like words and some words expressing non-nominal concepts (e.g., certain posture predicates).

The make-up of the predicate is quite complex and includes several morphological zones, see Figure 1.

prefixes					root	suffixes			
argument structure zone				pre-stem elements	stem			endings	
absolutive	subordinators	applicatives and indirect objects	ergative	preradical negation	causative	root	temporal, aspectual, modal and evaluative operators	suffixal negation	illocutionary operators or subordinators
1	1	>1	1	1	1 or 2		>1	1	>1

Figure 1: The simplified structure of the NWC predicate (cf. Arkadiev and Lander 2020: 404).

Here we are concerned mainly with the argument structure zone, which occupies most of the prefixal part of the predicate, contains person/number indexing of all basic participants of the state-of-affairs and includes the applicative morphology (if any). The argument structure zone opens with the absolutive indexing prefix (which can be absent under conditions different for different languages) and ends with the ergative indexing (with transitive predicates). In-between we find directional prefixes ('hither' and 'thither'), whose position varies across languages, indirect objects and applicative complexes discussed in detail in subsequent sections, some subordination morphology (probably related to applicatives) and in Abaza and Abkhaz also some negation and aspectual prefixes. Cf. comparable forms (2) and (3), which demonstrate most kinds of prefixal morphology; square brackets indicate the boundaries of the argument structure zone.

(2) West Circassian

[z-ja-š^{wə}]-mə-t

RFL.ABS-3PL.IO+DAT-2PL.ERG-NEG-give[IMP]

'Do not give yourselves to them.'

(3) Abaza

[j-g'-ʃa-sə-rə]-m-t-χ-t

3SG.N.ABS-NEG.EMP-CSL-1SG.IO-3PL.ERG-NEG-give-RE[AOR]-DCL

'They didn't give it back to me.'

Cross-reference morphology indexes person-number and in Abkhaz-Abaza also gender. The same paradigms also include prefixes with the reflexive, reciprocal, and relative functions. It is commonly assumed that at least three series of indexing prefixes can be distinguished, namely absolutive, indirect object and ergative, although the latter two are hardly distinguishable in most contexts and/or person-number combinations. In addition, Ubykh distinguishes a separate series of possessive prefixes (also distinct mainly in the 3rd person), while West Circassian has a series of prefixes indexing post-positional objects.

Flagging morphology is limited. Abkhaz-Abaza only display adverbial and instrumental suffixes, while core noun phrases as well as adnominal possessors and objects

of postpositions are unmarked. By contrast, Circassian and Ubykh also have markers for core cases, i.e. absolutive (S/P) and oblique, the latter marking basically all non-absolutive arguments, including the ergative A, indirect objects, adnominal possessors and objects of postpositions, and in some marginal constructions even the absolutive argument (see Lander, Belyaev, and Bagirokova 2021). For example, in (1) above we observe a phrase referring to P and marked with the absolutive as well as two oblique-marked phrases, one referring to the ergative A and the other to the indirect object. Note, however, that in Ubykh the absolutive is unmarked in both singular and plural, while in Circassian core case markers are normally absent on personal pronouns, possessed nominals and are usually absent on non-specific nominals (cf. Arkadiev and Testeleits 2019).

2.3 A note on the transcription

Throughout this paper, examples from all NWC languages are given in the unified Caucasian transcription commonly employed in works on NWC and Kartvelian languages rather than in IPA (see Arkadiev and Lander 2020: 373–376). The most important divergences from IPA are as follows: ejective consonants are marked by a dot below or above the symbol; palatalization is marked by an apostrophe; *c, č, ś, ʒ, ʃ, ʒ* denote dento-alveolar affricates and fricatives; *š, ž, ĉ* denote the so-called hissing-hushing consonants usually identified as alveolo-palatal but whose exact phonetic interpretation is subject to variation and controversy. Glossing of examples is also unified or added if absent in the source.

3 Formal aspects of Northwest Caucasian applicatives

3.1 Morphology: Applicative complexes

NWC languages possess rich systems of applicative prefixes which typically specify the semantic roles of applied objects (see Section 4). Applicative markers usually appear together with indirect object prefixes indexing the participant they introduce within so-called **APPLICATIVE COMPLEXES**. The canonical applicative complex, then, consists of an indexing prefix and an applicative prefix, which immediately follows it. (Note that in Circassian languages and in Ubykh 3sg indirect prefixes are null, so it is quite typical to have an applicative without an overt indexing prefix.) Both the applicative prefixes and the cross-referencing prefixes can show (morpho)phonologically conditioned allomorphy, such as consonant assimilation, vowel alternation or elision.

The following examples display simple applicative complexes taken in brackets:

- (4) West Circassian
qə-[d-de]-psewə-ʁ
 CSL-1PL.IO-COM-live-PST
 ‘S/he lived with us.’
- (5) Kabardian, Besleney dialect
qə-[s-x^we]-f-xə-ž
 CSL-1SG.IO-BEN-2PL.ERG-carry-RE[IMP]
 ‘Bring it back to me.’
- (6) Ubykh (Fenwick 2011: 111)
šʔə^we šʔə-məz a-[šʔ-čə]-d^w-ewt^w-qə-jt
 1PL.POSS 1PL.PR-child 3SG.ABS-1PL.IO-MAL-die-FUT-PST-RS.SG
 ‘Our child would have died [and been taken] from us.’
- (7) Abkhaz (Hewitt 1979: 114)
a-žah^wa s-[a-la]-jə-sə-jt
 DEF-hammer 1SG.ABS-3SG.IO.N-INSTR-3SG.M.IO-hit[AOR]-DCL
 ‘I hit him with the/a hammer.’

There are several deviations from this canon. First, an applicative complex may contain more than one prefix specifying the role of the applied object. In such cases, the general rule is that a prefix has wider semantic scope with respect to the preceding part of the applicative complex. In the following example an applicative preverb introducing “a flat, broad or open surface or area” (Fenwick 2011: 112) is followed by a translative preverb, while their combination is introduced by a general locative applicative:

- (8) Ubykh (Fenwick 2011: 115)
ze-qʔašə-n [Ø-gʔə-ʁe-le]-χ^we-gʔə
 one-village-OBL 3SG.IO-LOC:area-TRANS-LOC-pass-CVB
 ‘As he was passing through a village. . .’

Where a single participant is introduced by several applicatives proper, as in (9a), we may still assume a layered structure (albeit such examples also allow other interpretations such as postulating a kind of coordination of applicatives). Reversing the order of applicatives in such examples does not change the meaning, cf. a similar Kabardian example with the opposite order of applicatives, (9b).

- (9) West Circassian (elicited) and Kabardian (Applebaum 2013: 52)
 a. WC *[[p-fə]-de]-s-šə-ʁ*
 2SG.IO-BEN-COM-1SG.ERG-do-PST
 ‘I did it with and for you.’

- b. K *sə-šə-[[b-də]-x^we]-ʒež-a-m*
 1SG.ABS-TEMP-2SG.IO-COM-BEN-work-PST-OBL
 ‘When I had worked with you, for you.’

The second deviation relates to the fact that in Circassian some cross-reference prefixes may “move to the left” and become separated from their applicatives. A widely attested situation is the separation of the 3rd person plural affix from its applicative by a directional preverb, as in (10b). However, under circumstances which still wait for research such indexing prefix can be separated from its applicative by another applicative (11). In some Circassian subdialects, the speakers also allow the separation of the reflexive/relative prefix (12b). Moreover, some varieties of West Circassian even display the rearrangement of indexing prefixes before the applicative (Kumakhova 1972: 72–76), but this phenomenon is still worthy of investigation.

- (10) West Circassian (Kumakhov and Vamling 2009: 110)

- a. *we š^wəzə-xe-m wə-q-[a-de]-čə-ʁ*
 2SG wife-PL-OBL 2SG.ABS-CSL-3PL.IO-COM-run-PST
 b. *we š^wəzə-xe-m w-[a]-qə-[de]-čə-ʁ*
 2SG wife-PL-OBL 2SG.ABS-3PL.IO-CSL-COM-run-PST
 Both: ‘You ran here together with women.’

- (11) West Circassian

- a-ʁe-wəc^wə-ʁe q^waž^ʔe-m meš^ʔət*
 3PL.ERG-CAUS-stand-PST village-OBL mosque
q-[a]-š^ʔə-[ʃ]-a-šə-ʁa-ʁ
 CSL-3PL.IO-LOC-BEN-3PL.ERG-make-PST-PST
 ‘They made a mosque for them in the village founded by them.’

- (12) Kabardian, Besleney dialect (elicited)

- a. *qə-[z-f]-je-s-a*
 CSL-RFL.IO-MAL-DAT-swim-PST
 b. *[zə]-qə-[f]-je-s-a*
 RFL.IO-CSL-MAL-DAT-swim-PST
 Both: ‘He swam here against his own will.’

The third deviation is found in Abaza and Abkhaz and concerns a number of applicative prefixes with spatial meanings that normally do not take person-number prefixes cross-referencing the AppP (see e.g. Avidzba 2017: 115–122), at least when the latter is singular non-human, cf. (13) with a “regular” and “bare” occurrence of the same applicative.

(13) Abaza (Klychev 1995: 111–112)

- a. *a-ʒə a-s j-[a-kʷ]-kʷkʷ-əj-t*
 DEF-water DEF-shirt 3SG.N.ABS-3SG.N.IO-LOC:top-drip-PRS-DCL
 ‘Water is dripping on the shirt.’
- b. *a-divan də-[kʷ]-naʃa-t*
 DEF-sofa 3SG.H.ABS-LOC:top-recline[AOR]-DCL
 ‘S/he reclined on the sofa.’

In fact, as argued by Lomtadze (1983) and Avidzba (2017: 115), even those applicatives that never co-occur with the third person singular non-human indirect object prefix *a-* (14a) can be preceded by other cross-referencing prefixes, such as the third person plural prefix *r-* (14b) or the relativization prefix *z-* (14c), on which see Section 3.2.

(14) Abaza (Klychev 1995: 57)

- a. *a-wasa-kʷa a-kʷar j-[bʒ'a]-r-kʷab-əw-n*
 DEF-sheep-PL DEF-canyon 3PL.ABS-LOC:middle-3PL.ERG-bathe-IPF-PST
 ‘They were bathing sheep in the canyon.’
- b. *awat ɕla-dəw-kʰ [r-bʒ'a]-jə-t*
 DEM.PL tree-big-INDF 3PL.IO-LOC:middle-come[AOR]-DCL
 ‘A large tree grew between them.’¹
- c. *a-c j-ʃa-[z-bʒ'a]-kʃa-z ɕla-ta*
 DEF-thunder 3SG.N.ABS-CSL-REL.IO-LOC:middle-hit-PST.NFIN tree-ADV
 ‘like a tree struck by a thunder’

Usually, applicative complexes modify their bases in a manner akin to adjuncts in syntax (cf. Colarusso 2006: 29–30 for Kabardian and Lander 2015 for West Circassian). There are two pieces of evidence for this. First, applicative complexes are normally non-obligatory, although there are some *applicativa tantum* predicates involving “bound” roots (e.g., in Circassian posture roots ‘sit’, ‘stand’, ‘lie’, as well as ‘be’, roots expressing directed motion such as ‘go in’ and ‘go out’ and some others) which cannot be used without locative preverbs introducing the landmark argument, as in examples (15a) and (15b). Example (15c), by contrast, shows a clearly optional and even occasional use of an applicative.

(15) West Circassian

- a. *ʔaʃe [z-gʷe]-λ-ep / *λ-ep*
 weapon 1SG.IO-LOC:near-lie-NEG lie-NEG
 ‘I have no weapon with me (lit. weapon does not lie next to me).’

¹ We use the en-dash to separate stems within productive nominal compounds, the so-called nominal complexes (see Lander 2017).

- b. *çaf-weterə-m* [*pxə-rə*]-*ç'ə-Ɂ* / **ç'ə-Ɂ*
 person-crowd-OBL [3SG.IO]LOC:through-TRANS-go_out-PST go_out-PST
 '(He) went through the human crowd.'
- c. *weš'x* *q-[a-f]-je-š'xə-r-ep*
 rain CSL-3PL.IO-BEN-DAT-rain-DYN-NEG
 'It does not rain for them.'

Second, there may be several applicative complexes within the same predicate, i.e. they allow recursion (see e.g. Lander and Letuchiy 2010); see Section 6 for the order of complexes in such forms. In fact, even the same applicative can occur twice, albeit in different meanings, cf. (16), with two instances of the benefactive, one introducing the addressee and the other the beneficiary:

- (16) West Circassian (Lander and Letuchiy 2010: 269)
s-[a-fə]-[Ø-f]-e-txe
 1SG.ABS-3PL.IO-BEN-3SG.IO-BEN-DYN-write
 'I write to him for their benefit.'
 'I write to them for his benefit.'

However, the stacking of applicative complexes has different productivity in different languages of the family. Thus, while Circassian texts present numerous forms containing several complexes, for Abaza, O'Herin (2001: 483–485) presents only elicited examples of multiple applicatives and reports that "many speakers consider some forms either degraded or completely unacceptable" (O'Herin 2001: 483, fn. 8). Our own fieldwork experience on Abaza confirms this impression.

In all examples provided above, applicative complexes occur in the argument structure zone. It is worth noting, however, that there are some exceptions to this. In particular, "neutralized applicatives" whose combinations with the root are lexicalized appear in the stem (see Section 7.3). Furthermore, Hewitt (2008a) provides Abkhaz examples like (17), where applicative complexes exceptionally occur to the right of the negative prefix:

- (17) Abkhaz (Hewitt 2008a: 310)
də-m-[rə-č'wχa]-sə-jt
 3SG.H.ABS-NEG-3PL.IO-APPL-hit[AOR]-DCL
 'S/he did not shove them.'

3.2 Syntax

All applicatives in NWC can be considered D-applicatives, since the argument they introduce is invariably an indirect object sharing its morphosyntactic properties with the recipient/goal argument of ditransitive predicates. The latter statement, however, can be

considered to some extent circular; since, as will be shown in Section 5, at least in Circassian languages there are simply no indirect objects not introduced by some applicative, including the recipient of ‘give’. Taking this into account, we could perhaps say that Circassian applicatives introduce a special type of argument having no parallels with arguments of simplex verbs. In any case, the syntactic status and morphosyntactic encoding of the arguments of the BC normally remain intact in the AC; in particular, applicativization never affects the absolutive argument (cf. Letuchiy 2012 on West Circassian).

As shown in the following examples, NWC applicatives in principle combine with predicates of any valency, so any restrictions on such combinations are motivated by the degree of complexity allowed by the language:

- (18) West Circassian: applicative + monovalent intransitive

fe-ʒ'egʷə-š'tə-be-x
[3SG.IO]BEN-play-AUX-PST-PL
‘They were playing for him.’

- (19) West Circassian: applicative + bivalent intransitive

w-jə-gʷəxeλə-š'wə *qə-b-de-xʷə-n-ew*
2SG.IO-POSS-intention-good CSL-2SG.IO-COM-happen-MOD-ADV
the-m *sə-p-f-j-e-leʔwə*
god-OBL 1SG.ABS-2SG.IO-BEN-[3SG.IO]DAT-DYN-ask
‘I ask God for you to make your good intentions come true.’

- (20) Besleney Kabardian: applicative + bivalent intransitive

sadikə-m *mjeste-xe-r* *ja-xʷə-r-jəqʷ-qəm*
kindergarten-OBL place-PL-ABS 3PL.IO-BEN-[3SG.IO]LOC:inside-be_enough-NEG
‘There are not enough vacant places in the kindergarten for them.’

- (21) West Circassian: applicative + monotransitive

xʷeχʷə-daxe-xe-r *qə-f-a-ʔwə-š'tə-be*
toast-beautiful-PL-ABS CSL-[3SG.IO]BEN-3PL.ERG-say-AUX-PST
‘They said beautiful toasts for him.’

- (22) West Circassian: applicative + ditransitive

se *p-f-j-e-s-ʔwə-n*
1SG 2SG.IO-BEN-[3SG.IO]DAT-1SG.ERG-say-MOD
‘I will tell him (that) instead of (lit. for) you.’

- (23) Abaza: applicative + ditransitive

j-šə-z-j-á-s-hʷ-p
3SG.N.ABS-2PL.IO-BEN-3SG.M.IO-DAT-1SG.ERG-say-NPST.DCL
‘I will tell this to him about you.’

In BCs many potential applied objects can be marked either with peripheral cases (24) and postpositions (25) or with constructions involving subordinate clauses (26).

(24) Abaza (elicited)

- a. *a-čə arqán-la jə-z-ɬəč'-t*
 DEF-horse rope-INS 3SG.N.ABS-1SG.ERG-steal[AOR]-DCL
- b. *a-čə arqán j-á-la-z-ɬəč'-t*
 DEF-horse rope 3SG.N.ABS-3SG.N.IO-INSTR-1SG.ERG-steal[AOR]-DCL
- Both: 'I stole the horse by means of a rope.'

(25) West Circassian (elicited)

- a. *a-xe-m a-dež' kʷa-ɬe*
 that-PL-OBL 3PL.PP-at go-PST
- b. *a-xe-m a-fe-kʷa-ɬ*
 that-PL-OBL 3PL.IO-BEN-go-PST
- Both: 'S/he went to their place.'

(26) West Circassian (elicited)

- a. *tə-w-jə-ɬʷəs-ew tə-šxe-š'tə-ɬ*
 1PL.ABS-2SG.IO-POSS-attendant-ADV 1PL.ABS-eat-AUX-PST
əč'jə t-je-šʷe-š'tə-ɬ
 and 1PL.ABS-DAT-drink-AUX-PST
- b. *tə-qə-b-da-šxe-š'tə-ɬ əč'jə*
 1PL.ABS-CSL-2SG.IO-COM-eat-AUX-PST and
tə-qə-b-d-je-šʷe-š'tə-ɬ
 1PL.ABS-CSL-2SG.IO-COM-DAT-drink-AUX-PST
- Both: 'We were eating and drinking together with you.'

In non-standard speech in Circassian languages, locations sometimes can appear without any locative markers (27), or with a spatial noun but without any locative preverb on the predicate (28a), but this is not a norm at all.

(27) West Circassian (elicited)

- š'egʷə-xe-m weredə-be q-(a-š')-a-ɣʷe*
 wedding-PL-OBL song-many CSL-3PL.IO-LOC-3PL.ERG-say
 'They sing a lot of songs at weddings.'

(28) Kabardian (Bagov (ed.) 1999: 42)

- a. *zə-gʷerə-m jə-bɬʷə-č'e wəvə-n*
 one-some-OBL POSS-side-INS stand_up-MSD
 'to stand up beside someone/something'

- b. *šaʒe-čəkʷə-r jə-ade-m bɛʷə-rə-wəv-a-š*
 boy-little-ABS POSS-father-OBL [3SG.IO]LOC:side-TRANS-stand_up-PST-DCL
 ‘The little boy stood up beside his father.’

In ACs, applied objects normally behave as core non-absolutive arguments. In Circassian and Ubykh AppPs appear in the oblique case and in Abkhaz-Abaza they remain unmarked, just as all core arguments.

Curiously, however, some participant expressions may (yet do not need to) retain their “adjunct” marking even when they are cross-referenced as applied objects. For instance, in (29) the beneficiary is introduced both by a postposition and an applicative, while in (30) the accompanier is present both in the adverbial clause and in the matrix predicate. Such doubling is also reported in locative constructions such as (31), where ‘the shadow of their grandfather’ is virtually introduced by an incorporating spatial noun and a cognate locative applicative in the predicate. In examples like the latter, it may also be the case that the whole phrase ‘the bottom of the shadow of their grandfather’ serves as an AppP of the applicative complex. The range of constructions that allow such doubling varies across NWC languages.

- (29) West Circassian (Lander 2015: 21)

dax-jə ʔeʃʷə-Ɂ-jə zə-p-λeɁʷə-čʻe,
 beautiful-ADD sweet-NMZ-ADD REL.TEMP-2SG.ERG-see-INS
se-šʻ paje s-fe-w-e-ke-šʷe-žʻə
 1SG-OBL for 1SG.IO-BEN-2SG.ERG-DYN-CAUS-good-RE
 ‘When you see beautiful and sweet things, you keep (them) for me.’

- (30) West Circassian

wə-s-jə-Ɂʷəs-ew wəne-m
 2SG.ABS-1SG.PR-POSS-attendant-ADV house-OBL
qə-z-d-jə-h-jə Ɂʷeməle-m xa-ʔ
 CSL-1SG.IO-COM-LOC:inside-go_in[IMP]-ADD meal-OBL LOC:mass-taste[IMP]
 ‘Come home with me and have a snack.’

- (31) Ubykh (Fell 2012: 81)

eke-tʷ(ə)gʻəʒe ke-žʻawe-beçe-n beçe-çe-ne-n
 3PL.PR-grandfather 3SG.PR-shadow-under-OBL LOC:under-be-PRS-PL
 ‘(sitting) under the shadow of their grandfather’

Little is known about the syntactic differences between ACs and BCs in those cases when the same content can be expressed by both. For instance, O’Herin (2001: 487) reports that in Abaza the indirect object introduced by the instrumental applicative must be definite while no such restriction exists for the independent nominal in the instrumental case in the BC. However, he himself adds that such a contrast does not

exist for the other applicatives; moreover, our own elicited data from Abaza suggest that there is no systematic difference in definiteness between BC and AC even for the instrumental applicative.

The only clear difference concerns constructions involving coreference (in a broad sense, also including any kinds of coindexation), such as reflexive, reciprocal and relative clause constructions. AppP can undergo reflexivization and reciprocalization by regular or specialized means available in the individual languages. This is especially evident in Circassian (and to a certain extent also in Ubykh, see Fenwick 2011: 107), where the reflexive and reciprocal prefixes simply replace the person-number prefixes in their canonical position (see e.g. Letuchiy 2007 and Ershova 2019 on West Circassian and Kazenin 2007 on Kabardian), cf. examples in (32).

(32) West Circassian

- a. *wə-zə-fe-gʷəbʒə-žʹ-a?*
 2SG.ABS-RFL.IO-BEN-be_angry-RE-Q
 'Are you angry at yourself?' (Ershova 2019: 55)
- b. *te wəne-xe-r ze-fe-t-šə-x*
 1PL house-PL-ABS REC.IO-BEN-1PL.ERG-do-PST
 'We built houses for each other.' (Letuchiy 2007: 790)

Reflexivization of AppPs in Abaza and Abkhaz is usually achieved by employing the same regular person-number-gender prefixes (O'Herin 2001: 490–491; Arkadiev and Durneva 2023), see (33a), or by means of a free reflexive element (the noun 'head' with the possessive prefix coindexed with the agent) corresponding to the AppP (33b). The latter strategy is also used in Ubykh for transitive verbs, see Fenwick (2011: 82).

(33) Abaza

- a. *jə-w-zə-w-χʷʰə-əj-t*
 3SG.N.ABS-2SG.M.IO-BEN-2SG.M.ERG-buy-PRS-DCL
 'You (M) buy it for yourself.' (elicited)
- b. *s-qa a-čə-s-χʷʰə-a-t*
 1SG.IO-head 3SG.N.IO-MAL-1SG.ERG-protect[AOR]-DCL
 'I protected myself / my head from it.' (Arkadiev and Durneva 2023: 249)

Reciprocalization of AppPs in Abaza is achieved by a non-trivial morphological strategy, i.e. reduplication of the combination of the applicative complex with the frozen prefix *a-* (34).

(34) Abaza (elicited)

- a. *sawʰá a.z~a.zə-h-χʷʰə-a-d*
 present BEN~REC-1PL.ERG-buy[AOR]-DCL
 'We bought each other presents.'

- b. *h-a.ĉ~a.ĉ-bah-əj-t*
 1PL.ABS-MAL~REC-be_angry-PRS-DCL
 ‘We are angry at each other.’

Finally, relativization of AppPs is generally fulfilled simply by replacing the corresponding indexing prefix with the relative prefix (which in Circassian coincides with the reflexive prefix; see Lander and Daniel 2019 for discussion), see (35).

- (35) Abaza (elicited)
- a. *a-ph^wəspa sə-[l-c]-qrafa-t*
 DEF-girl 1SG.ABS-3SG.F.IO-COM-help[AOR]-DCL
 ‘I helped the girl.’
- b. *sə-[z-c]-qrafa-z a-ph^wəspa*
 1SG.ABS-REL.IO-COM-help-PST.NFIN DEF-girl
 ‘the girl whom I helped’

Now, at least in Circassian, reflexivization, reciprocalization and relativization of an AppP marked in the predicate are preferred over similar operations with a parallel element of a BC. For example, relativization of an applied goal as in (36a) is considered much better than relativization of a goal introduced by a postposition like (36b) (the latter construction is found in corpora but is much rarer and is considered infelicitous by many speakers):

- (36) West Circassian (elicited)
- a. *zə-fe-k^wa-be-xe-r*
 REL.IO-BEN-go-PST-PL-ABS
 b. *zə-dež’ k^wa-be-xe-r*
 REL.PP-at go-PST-PL-ABS
 Both: ‘the place where they went’

In fact, there are even cases of relativization of AppPs, where the corresponding BCs do not exist; see Section 7.2.

4 Semantics

4.1 General information and etymology

NWC languages possess rich systems of applicative prefixes, which can be roughly divided into grammatical applicatives (benefactive, malefactive, comitative and possibly some others), locative applicatives and the dative applicative. The latter, which is

in a sense even more grammaticalized than so-called grammatical applicatives, differs from other applicatives in many important respects, so we discuss it in a dedicated section (Section 5).

The boundary between grammatical (sometimes called “relational”; cf. also the term “version” used in the works inspired by the tradition of the description of Georgian, e.g. most of the descriptions published during the Soviet period, cf. Lomtadze 1976) and locative applicatives is, however, fuzzy, since most grammatical applicatives clearly originate from locative ones. For example, the West Circassian malefactive *š^we-* goes back to the locative preverb with the very specific meaning ‘on the tip of smth.’ (see Mazurova 2009), the benefactive *fe-* is sometimes used with reference to the direction of motion, the comitative *de-* coincides with one of the basic locative applicatives, and the instrumental *rə-* can be treated as the same morpheme as the translative prefix introducing the path of motion. Hence in many cases the glosses contrasting the grammatical and locative applicatives may reflect a functional contrast rather than distinguishing between different morphemes.

Locative applicatives include a bunch of so-called locative preverbs and their combinations, too numerous to be listed here. The systems of locative preverbs (including polymorphemic ones) range from about two or three dozen in Circassian (see e.g. Smeets 1984: 259–261) to more than a hundred in Abkhaz–Abaza (see e.g. Spruit 1986: 22–31); however, in the latter only a subset of locative preverbs behave as genuine applicatives able to introduce arguments and host cross-referencing prefixes (Lomtadze 1983; Avidzba 2017).

While the etymology of some of the most grammaticalized applicatives is obscure, a large part of them shows clear resemblance to postpositions, locational nouns and body-part terms (see e.g. Kumakhov 1964: 164–182, 1989: 200–228; Lomtadze 1983; Avidzba 2017; Arkadiev and Maisak 2018: 121–125). While examples like (37)–(38) from Abkhaz and Abaza may tempt one to assume that NWC applicatives have arisen via incorporation of postpositions (a putatively universal scenario proposed by Peterson 2007: 140–141, cf. Fell 2012 on Ubykh, Chirikba 2020: 575 fn. 3 on Abkhaz, or O’Herin 2001 on Abaza), there is evidence that at least some applicatives have rather arisen from incorporation of nouns while the cognate postpositions may have developed independently (see e.g. Arkadiev and Maisak 2018: 125). For instance, many postpositions feature extra morphology (sometimes fossilized) as compared to the applicatives, and, still more importantly, a number of applicatives do not have any cognate postpositions at all.

(37) Abkhaz (Hewitt 1979: 113, transcription adapted)

- a. *axra jə-zə jə-qa-s-çe-jt*
 A. 3SG.M.IO-for 3SG.N.ABS-PVB-1SG.ERG-do[AOR]-DCL
- b. *axra jə-zə-qa-s-çe-jt*
 A. 3SG.N.ABS+3SG.M.IO-BEN-PVB-1SG.ERG-do[AOR]-DCL
- Both: ‘I did it for Axra.’

(38) Abaza

- a. *a-warba j-š'ap-k^{wa} rə-3qa*
 DEF-eagle 3SG.M.PR-foot-PL 3PL.IO-near
j-ʕa-ka-ša-t
 3SG.N.ABS-CSL-LOC:down-fall[AOR]-DCL
 'The eagle fell at his feet.' (Tabulova 1976: 278)
- b. *d-ʕa-hə-3qa-jə-r-gəl-t*
 3SG.H.ABS-CSL-1PL.IO-LOC:beside-3SG.ERG-CAUS-stand[AOR]-DCL
 'He caused him/her to stand near to us.' (O'Herin 2001: 481)

The etymological sources of selected applicatives (mainly of locative preverbs) are given in Table 1, see Kumakhov (1964: 165–182) on Circassian, Dumézil and Esenç (1975: 103–130, 139–144) on Ubykh and Klychev (1994) on Abaza. Chirikba (1996: 380–381) also points to some putative relations between a number of Circassian, Ubykh and Abkhaz-Abaza preverbs.

Table 1: Lexical sources of selected NWC applicatives.

language	applicative	lexical source
West Circassian	<i>ʔeč'e</i> - inadvertitive	<i>ʔe</i> 'hand' + <i>č'e</i> 'bottom'
	<i>pe</i> - 'on the frontal part of the landmark'	<i>pe</i> 'nose'
	<i>ʔe</i> - 'following the landmark'	<i>ʔe</i> 'foot'
	<i>k^wečə</i> - 'inside/through the landmark'	<i>k^wečə</i> 'intestines'
	<i>ʔwə</i> - 'beside or near the front of the landmark'	<i>ʔwə</i> 'mouth, lips'
Ubykh	<i>g'ə</i> - 'on the surface of the landmark'	<i>g'ə</i> 'heart'
	<i>ʔeje</i> - 'under the landmark'	<i>ʔe</i> 'foot'
	<i>pš'e</i> 'behind'	<i>pš'e</i> 'buttocks'
Abaza	<i>cə</i> - comitative	<i>cə</i> 'be together with'
	<i>čə</i> - malefactive	<i>ʔčə</i> - 'skin'
	<i>čpə-nə</i> - 'edge of the landmark'	<i>čpə</i> 'bank, side'
	<i>čə</i> - 'slope, frontal surface'	<i>čə</i> 'mouth, face'
	<i>k^wə</i> - 'beside the landmark'	<i>k^wə</i> - 'bosom'
	<i>qə</i> - 'above the landmark'	<i>qə</i> 'head'
	<i>š'tə</i> - 'after the landmark'	<i>š'tə</i> 'trace'

4.2 Grammatical applicatives

Grammatical applicatives, i.e. applicatives that have regular non-locative functions, include at least benefactive, malefactive, comitative, and instrumental.

The semantics of the benefactive and malefactive applicatives in West Circassian has been described by Letuchiy (2009), who identifies the following functions for the benefactive: benefactive proper (39a), deputative 'instead of' (39b), inanimate goal

(39c) or animate recipient (39d), purpose (39e), external possessor (39f), stimulus of feeling or emotion (39g), judicans (person judging) (39h), and content of speech or thought ‘about’ (39i).

(39) West Circassian

- a. *a zə-r qə-s-fa-š^w-š*
DEM one-ABS CSL-1SG.IO-BEN-2PL.ERG-do[IMP]
‘Do this one thing for me!’
- b. *axš’e-r q-a-f-jə-g^wes’ə-n-ew je-leʔ^wə-be-x*
money-ABS CSL-3PL.IO-BEN-3SG.ERG-divide-MOD-ADV DAT-ask-PST-PL
‘They asked him to divide the money for them [because they could not agree how they should do it themselves].’
- c. *bze-šenəbe-m fe-be-ze-be nəbž’ə-č’e-xe-r*
language-knowledge-OBL BEN-CAUS-turn-RES age-new-PL-ABS
‘the young people devoted to linguistics’
- d. *qəbar-g^wəxeč’ qə-p-fe-t-hə-be-r*
news-sorrow CSL-2SG.IO-BEN-1PL.ERG-bring-PST-ABS
‘We have brought you bad news.’
- e. *ə-še-re-ba sə-qə-z-fe-k^wa-be-r*
3SG.ERG-know-DYN-EMP 1SG.ABS-CSL-REL.IO-BEN-go-PST-ABS
‘Doesn’t he know why (lit. what for) I have come?’
- f. *pəj-xe-m s-q^we s-f-a-wəč’ə-ʔ*
enemy-PL-OBL 1SG.PR-son 1SG.IO-BEN-3PL.ERG-kill-PST
‘The enemies killed my son.’ (Letuchiy 2009: 344)
- g. *bw-ew dwənəjə-m sə-fe-reze-n-jə!*
much-ADV world-OBL 1SG.ABS-BEN-be_content-MOD-ADD
‘I would be very content with the world!’
- h. *šenəbe-dek^wə əč’jə ʔepeʔesenəbe z-jə-ʔe*
knowledge-good and talent REL.IO-POSS-be
ekskursovod-xe-r t-fe-mač’e-x
guide-PL-ABS 1PL.IO-BEN-little-PL
‘We are short of knowledgeable and talented guides’
- i. *wəč’epš’əje, pč’əhaʔəq’əje, neč’erezəje, neməč’-q^waž’e-xe-m-jə*
W. P. N. other-village-PL-OBL-ADD
č’ərk-jure wəred-xe-r a-f-jə-wəsə-be-x
Ch.-Y. song-PL-ABS 3PL.IO-BEN-3SG.ERG-compose-PST-PL
‘Yura Chirg composed songs about Wechepshiy, Pchyhatlukay, Necherezay and other villages.’

The range of functions of the benefactive attested in the other NWC languages is similar to those observed in West Circassian, although details may vary (cf. e.g. Chirikba 2020 on Abkhaz).

The malefactive, according to Letuchiy (2009), has the following functions in West Circassian: malefactive proper (40a), involuntary agent (40b), and judicans (40c) (the last is seemingly possible only with nominal predicates; cf. Lander and Bagirokova 2021).

(40) West Circassian

- a. *nepsə-r qə-s-š^wa-k^we*
 tear-ABS CSL-1SG.IO-MAL+DYN-go
 ‘Tears appear against my will.’
- b. *a-š’ č’aške-r š^we-q^wəta-Ɂ*
 DEM-OBL cup-ABS MAL-break-PST
 ‘He accidentally broke a cup.’² (Letuchiy 2009: 363)
- c. *a-š’ fedjəz-ew p-pse p-š^we-ʔeš^w-me*
 DEM-OBL such-ADV 2SG.PR-soul 2SG.IO-MAL-sweet-COND
se wə-qe-z-Ɂe-ne-ž’ə-n
 1SG 2SG.ABS-CSL-1SG.ERG-CAUS-remain-RE-MOD
 ‘If your life is so dear to you, I’ll save you.’

Other uses of the malefactive are also attested in NWC. For example, in Abaza it can introduce the stimulus of negative emotions:

(41) Abaza

- sə-z-č-pχaš’a-wa* *s-satər-k^wa*
 1SG.ABS-REL.IO-MAL-be.ashamed-IPF 1SG.IO-line-PL
 ‘my verses, which I am ashamed of’

The comitative is basically monosemous and expresses the co-participant, which can be either an agent, intransitive (42a) or transitive (42b), or a patient (42c) of the event:

(42) West Circassian

- a. *apere-me a-də-de-č’ə-Ɂa-Ɂe-x*
 first-OBL.PL 3PL.IO-COM-LOC:enclosure-go_out-PST-PST-PL
 ‘They left together with those who went first.’
- b. *a-ʔ^we-re-r a-d-jə-ʔ^wa-Ɂ*
 3PL.ERG-say-DYN-ABS 3PL.IO-COM-3SG.ERG-say-PST
a-š-e-re-r a-d-jə-š-a-Ɂ
 3PL.ERG-do-DYN-ABS 3PL.IO-COM-3SG.ERG-do-PST
 ‘He said what they were saying together with them, he did what they were doing together with them.’

² Note that in this example the verbal root is labile; compare the dedicated inadvertitive constructions with agent demotion below.

- c. *fəgʷə-r-jə* *de-p-hə-n* *faje*
 millet-ABS-ADD COM-2SG.ERG-take-MOD must
 ‘You must also take millet [together with meat]!’

The instrumental applicative introduces the instrument (43a) or means, e.g. language (43b).

(43) West Circassian

- a. *njepe* *kʷembajn-jə-tfə-m* *ʔwef* *rə-t-e-ʃe*
 today harvester-LNK-five-OBL work INSTR-1PL.ERG-DYN-do
 ‘Today we are doing our work with five harvesters.’
- b. *adaga-bze-m* *qə-rə-mə-ʔwe-ʃwə-n*
 Circassian-language-OBL CSL-INSTR-2SG.ERG+NEG-say-POT-MOD
gʷəpʃəse *ʃə-ʔ-ep*
 thought LOC-be-NEG
 ‘There is no thought that one cannot express in Circassian.’

In Abkhaz, according to Chirikba (2020: 578), the means of transport can be introduced alternatively either by the comitative (44a) or by the instrumental (44b) applicatives.

(44) Abkhaz (Chirikba 2020: 578)

- a. *sará* *a-mašina* *s-á-c-aa-jt*
 1SG DEF-car 1SG.ABS-3SG.N.IO-COM-come[AOR]-DCL
- b. *sará* *a-mašina* *s-á-l-aa-jt*
 1SG DEF-car 1SG.ABS-3SG.N.IO-INSTR-come[AOR]-DCL
- Both: ‘I arrived by car.’

Besides that, Circassian languages have a possessive applicative (homonymous with one of the frequent locative applicatives, yet different from it in morphonological behavior) which is used with the predicate ‘be’ to introduce the possessor (45). In Circassian the same applicative appears on nouns in adnominal possessive constructions (in West Circassian and formerly in Besleney Kabardian only in alienable possessive constructions) (46).

(45) West Circassian

- w-jane-w-jate-xe-r* *w-jə-ʔe-x-a?*
 2SG.PR-mother-2SG.PR-father-PL-ABS 2SG.IO-POSS-be-PL-Q
 ‘Do you have parents?’

(46) West Circassian

- w-jə-čʷezəw* *qe-sə-ʁ,* *s-jə-šaw*
 2SG.PR-POSS-time CSL-reach-PST 1SG.PR-POSS-son
 ‘Your time has come, my son.’

Abaza has a dedicated estimative (Jacques 2023) applicative *ma-* (presumably going back to the root ‘hold, have’) occurring with nominal stems and introducing a judicans participant (47) just like the malefactive in Circassian.

(47) Abaza (elicited)

- a. *aráj d-g^wəbzəka-b*
 DEM 3SG.H.ABS-clever-NPST.DCL
 ‘S/he is clever.’
- b. *aráj d-sə-ma-g^wəbzəka-b*
 DEM 3SG.H.ABS-1SG.IO-EST-clever-NPST.DCL
 ‘I consider her/him clever.’

Another curious phenomenon observed in Abaza and Abkhaz concerns the reciprocal prefix *aba-* whose basic use is illustrated in (48a). As shown in (48b), the same prefix can function as a sociative applicative and introduce an indirect object; note that the base predicate ‘know’ in this example is transitive, while its applicativized version is bivalent intransitive, obviously in line with the general rule that reciprocals detransitivize predicates (see also Section 7.1), cf. (48a). Such a use of the reciprocal does not seem to be productive, although is attested with a number of predicates denoting interpersonal interaction (e.g. ‘be acquainted’, ‘fight’).

(48) Abaza

- a. *a-sabəj-k^wa j-aba-ʒʒa-t*
 DEF-child-PL 3PL.ABS-REC-wash[AOR]-DCL
 ‘The children washed each other.’ (elicited)
- b. *rq^wəχəŋ^w-əa-g^əj h-r-aba-dər-nəs h-ajg^wə-əj-t*
 researcher-HPL-ADD 1PL.ABS-3PL.IO-REC-know-PURP 1PL.ABS-hope-PRS-DCL
 ‘We hope to get acquainted with the researchers.’

In all NWC languages we find irregular and non-predictable lexicalized combinations of grammatical applicatives and roots. Some examples include the use of the malefactive for an experiencer (49a) (which, however, may be related to its judicans use as in [40c] above) and the benefactive in combination with ‘happen’ for ‘enough’ in West Circassian (49b), the appearance of a benefactive in combination with the root ‘look’ for ‘wait’ in Abkhaz and Abaza (50), etc.

(49) West Circassian

- a. *sawəsəraq^we səd ə-ʃe-ka-b-ew qə-p-ʃ^we-ʃə-re we?*
 S. what 3SG.ERG-do-PST-PST-ADV CSL-2SG.IO-MAL-do-DYN 2SG
 ‘Do you guess what Sosruko did?’

- b. *p-fe-χ^wə-me* *t-je-pλə-n!*
 2SG.IO-BEN-happen-COND 1PL.ABS-DAT-look-MOD
 ‘We will see if that is enough for you.’

(50) Abkhaz (Hewitt 1979: 151)

- χ-ɥə-κ* *κ^wətola* *a-mašina* *j-a-zə-pš’ə-w-ḡ*
 three-CLH-NUM Kwitolian DEF-bus 3PL.ABS-3SG.N.IO-BEN-look-ST-NPST.DCL
 ‘Three Kwitolians are waiting for the bus.’

Moreover, one can find bound roots whose semantics cannot be determined without applicatives: in West Circassian and Kabardian, for example, there are predicates like *fe-je-* / *χ^w-je-* ‘must, want’ (with the benefactive prefix) and *jə-je-* / *je-* (< *jə-je-*) ‘belong to’ (with the possessive prefix), where the meaning of the root cannot be precisely formulated.

4.3 Locative applicatives

Basically, locative applicatives specify the spatial configuration of the event with respect to the landmark which they introduce as the indirect object, consider examples in (51).

(51) West Circassian

- a. *maš^we-m* *pe-t*
 fire-OBL LOC:front-stand
 ‘He is standing in front of the fire.’ (Rogava and Kerasheva 1966: 121)
- b. *he-r* *pče-m* *ʔ^wə-λ*
 dog-ABS door-OBL LOC:near-lie
 ‘The dog is lying near the door.’ (Rogava and Kerasheva 1966: 126)
- c. *čər-ženəste-r* *λ-jə-ʒə-ɸ*
 steel-scissors-ABS LOC:after-3SG.ERG-throw-PST
 ‘He threw steel scissors after him.’ (Rogava and Kerasheva 1966: 128)

However, in many cases the choice of a particular preverb can also be described as dependent on the semantic features of the landmark itself (Kerasheva 1957, 1992; Paris 1995). Consider the examples in (52), where the spatial configuration is apparently constant while the preverbs differ with respect to the topological properties of the locative argument they introduce.

(52) Standard Kabardian (Kumakhov 1964: 165)

- a. *tjepšec’ə-m* *jə-λə-n*
 plate-OBL LOC:container-lie-MSD
 ‘to be on a plate’

- b. *škampə-m de-λə-n*
cupboard-OBL LOC:enclosure-lie-MSD
'to be in a cupboard'
- c. *daxə-m xe-λə-n*
oil-OBL LOC:mass-lie-MSD
'to be in oil'
- d. *šxəʔenə-m kʷeçə-λə-n*
blanket-OBL LOC:inside-lie-MSD
'to be in a blanket'

Locative applicatives are too numerous to be adequately treated here; moreover, many aspects of their semantics and usage are not yet fully described, despite the continuing interest of linguists. On the Circassian preverbs, see primarily Kumakhov (1964: 164–182), Kerasheva (1957, 1992) and Adyshesova (1999); on Abaza and Abkhaz, see Klychev (1994, 1995) and Avidzba (2017); on Ubykh, see Dumézil and Esenç (1975: 103–130). Some of the locative applicatives have very specific meanings, e.g., West Circassian *qʷe-* 'corner' or Abaza *χʔə-* 'down a vertical surface'. A number of locative applicatives, especially in Abaza and Abkhaz, can be considered incorporated body-part nouns, the argument they introduce corresponding to the possessor of the body-part, e.g. (53). In Circassian this is only possible when a noun is part of a complex preverb (54), even though many simplex preverbs, as already been said above, are etymologically related to body-part nouns.

- (53) Abkhaz (Spruit 1986: 28)
a-mačʷaz lə-mxa-s-χə-jt
DEF-ring 3SG.F.IO-LOC:finger-1SG.ERG-take[AOR]-DCL
'I took the ring from her finger.'

- (54) West Circassian
wex-wex gʷəšʔəʔe-r pstewə-m-jə q-a-že-de-zə-ʁ
oh-oh word-ABS all-OBL-ADD CSL-3PL.IO-mouth-LOC:enclosure-fall-PST
'Everyone blurted out the word "Oh-oh!"'
(Lit. For all, the word "Oh-oh!" fell from their mouth(s).')

All languages have a translocative preverb which introduces the path of motion (55)–(56). In Circassian and Abkhaz–Abaza these preverbs also have instrumental functions described above, while the Ubykh *ʁe-* lacks it and, moreover, only appears in the translocative meaning following other preverbs, see (8) above (Fenwick 2011: 115). Complex applicatives containing the translocative are also common in Circassian (57).

(55) West Circassian

g^wə-r ma-pλe, ne-r λaβ^we-m r-e-k^we
 heart-ABS DYN-look eye-ABS path-OBL TRANS-DYN-go
 ‘The heart watches, the eye goes along the path.’ (a proverb)

(56) Abaza (elicited)

aslán dačá-mʃ^wa-k d-á-la-ʃa-j-χ-t
 A. other-road-INDF 3SG.H.ABS-3SG.N.IO-TRANS-CSL-go-RE[AOR]-DCL
 ‘Aslan returned by another road.’

(57) West Circassian (Rogava and Kerasheva 1966: 133)

meza-m k^weçə-rə-çʻə-βe-x
 forest-OBL LOC:inside-TRANS-go_out-PST-PL
 ‘They went through the forest.’

Circassian and Ubykh also have general locative preverbs which introduce location without specifying its details (58). Such preverbs can further co-occur with other locative preverbs following them in an applicative complex (59).

(58) West Circassian

nahə-čʻ-ew anzawər bjerlin šʻ-e-psewə, šʻ-e-ħažʻe
 COMP-new-ADV A. B. LOC-DYN-live LOC-DYN-work
 ‘The younger, Anzaur, lives and works in Berlin.’

(59) Ubykh (Fenwick 2011: 116)

a-čʻə-n a-wawə-mβʻat^we leje-βe-le-sə-χ^we-qe
 DEF-horse-OBL DEF-saddle-strap LOC:under-TRANS-LOC-1SG.ERG-[CAUS]pass-PST
 ‘I passed the saddle strap under the horse.’

Locative (and dative) applicatives may interact with partly grammaticalized roots conveying the semantics of directional motion and occurring with roots of different semantic types (see Arkadiev and Maisak 2018: 125–127 on Circassian). For instance, in Circassian, a fixed combination of the locative preverb *de-* ‘enclosure’ and the directional suffix *-je* creates predicates expressing upwards motion; in (60a) the preverb introduces the landmark argument, while in (60b) no landmark is apparently implied.

(60) West Circassian

a. *ʔ^wešhe-λage-g^were-m de-k^we-ja-βe-x*
 hill-high-some-OBL LOC:enclosure-go-UP-PST-PL
 ‘They climbed some high hill.’

- b. *čəbeš^wə-xe-m* *a-wase* *leš-ew* *de-k^we-ja-Ɂ*
 fertilizer-PL-OBL 3PL.PR-price strong-ADV LOC:enclosure-go-UP-PST
 ‘The price of fertilizers has risen considerably.’

Locative applicatives can participate in lexicalized non-compositional root-applicative combinations just like grammatical ones (see e.g. Spruit 1986: 33–34 for Abkhaz), and sometimes such combinations contain roots that do not occur elsewhere; cf. the predicate in (61) which is based on a root that is not found outside of this combination:

- (61) West Circassian
č'etəw-Ɂase-r-jə *dəše-m* *xe-nə-Ɂ*
 cat-trainer-ABS-ADD gold-OBL LOC:mass-be.deprived-PST
 ‘The cat trainer was left without gold, too.’

Finally, for Ubykh Fenwick (2011: 113–114) notes a number of locative preverbs which only combine with a single root, and such preverbs are also attested in Abaza and Abkhaz as well (for Abaza, see e.g. Klychev 1995).

5 Dative applicatives

All NWC languages can introduce an indirect object by means of a so-called dative applicative. Dative applicatives follow all other applicative complexes in the prefixal string and show considerable differences from them in their behavior.

Semantically, dative applicatives are unspecified, i.e. the thematic relation of a “dative” indirect object is determined by the semantics of the stem. Typical arguments introduced by means of the dative applicative include the recipient of ‘give’ (62a), the addressee of ‘say’ (62b), and the causees in causatives derived from transitive stems (62c).

- (62) West Circassian
- a. *qə-s-e-š^w-t*
 CSL-1SG.IO-DAT-2PL.ERG-give[IMP]
 ‘Give it to me!’
 - b. *zə-g^were* *qə-w-e-s-ʔ^we-š^t*
 one-some CSL-2SG.IO-DAT-1SG.ERG-say-FUT
 ‘I will tell you something.’
 - c. *the-m* *Ɂ^weg^wə-nefə-r* *qə-r-jə-Ɂe-leɁ^wə-Ɂ*
 god-OBL road-light-ABS CSL-[3SG.IO]DAT-3SG.ERG-CAUS-see-PST
 ‘God has shown him the radiant road.’

At least in Circassian languages, dative applicatives are the main means of expressing the goal-like participant of ditransitive predicates, as well as of the second argument of many bivalent intransitive predicates denoting events with low semantic transitivity, in particular, not implying any salient change of state. These include both physical and mental activities, speech, and perception, see a representative list of West Circassian predicates in (63) based on the dictionary Tharkaho (1991: 74–84).

(63) West Circassian

- a. physical activity: *je-we* ‘hit, strike, shoot’, *je-ceqe* ‘bite’, *je-ṭeχʷə* ‘scratch’, *je-ʔʷənɕʰə* ‘push’, *je-bewə* ‘kiss’, *je-benə* ‘wrestle’, *je-ṭesḵʷə* ‘pinch’, *je-ʔe* ‘touch’, *je-šʷe* ‘drink’, *je-pšʰe* ‘blow’;
- b. speech: *je-λeʔʷə* ‘ask (a favor)’, *je-wəpɕə* ‘ask (a question)’, *je-χʷenə* ‘curse’, *je-gəjə* ‘scold’, *je-žʰe* ‘call’, *je-psele* ‘talk to’, *je-ʔʷəšəše* ‘whisper to’;
- c. perception: *je-ṭlə* ‘look, watch’, *je-deʔʷə* ‘listen to’, *je-pemə* ‘smell’;
- d. mental activity: *je-gʷəpšəse* ‘think about’, *je-žʰe* ‘read, learn’, *je-se* ‘get used to’.

Formally, dative applicatives manifest manifold peculiarities. First, in Circassian, they display complex morphophonologically conditioned allomorphy (see e.g. Smeets 1984: 217–226, 264–267), partly shown in the examples above. The basic allomorph of the dative applicative is *je-*; however, depending on the morphological context it can show up as *e-*, *jə-*, *r(ə)-* and even null, as in (64). In Abkhaz-Abaza the occurrence of the dative prefix appears to be lexically determined, cf. ‘say’ vs. ‘give’ in (65). Probably because of all this, the dative complex is sometimes described just as a peculiar expression of an indirect object coming without an applicative (Smeets 1984: 264; Kumakhov 1971: 266–269, 297–308; Kumakhov and Vamling 2009: 37–40).

(64) West Circassian

xetə qə-s-Ø-jə-ʔʷe-n

who CSL-1SG.IO-DAT-3SG.ERG-say-POT

‘Who will tell me [how you were killed]?’

(65) Abkhaz

- a. *ak-gʰə s-a-lə-m-hʷa-jt*

one-ADD 1SG.IO-DAT-3SG.F.ERG-NEG-say[AOR]-DCL

‘She said nothing to me.’ (Hewitt 2008a: 311)

- b. *jə-wə-s-ta-wa-jt*

3SG.N.ABS-2SG.M.IO-1SG.ERG-give-IPF-DCL

‘I am giving it to you.’ (Chirikba 2003: 50)

Second, like other applicative complexes, dative complexes can normally be omitted (66)–(67), but there are exceptions and complications. In particular, dative complexes introducing causees in causative predicates, like (62c) above, are usually required (68).

(66) West Circassian

qe-s-tə-š't-ep *zə* *aχš'-jə*
 CSL-1SG.ERG-give-FUT-NEG one money-ADD
 'I will give no money.'

(67) Kabardian, Besleney dialect (Arkadiev and Letuchiy 2021: 494)

- a. *ha-r* *qə-š'ə-w-e-zaqə-č'e* *vračə-m=dej* *kʷe*
 dog-ABS CSL-TEMP-2SG.IO-DAT-bite-INS doctor-OBL=to go[IMP]
 'If a dog bites you, go to the doctor.'
- b. *ha-r* *me-zaqə*
 dog-ABS DYN-bite
 'The dog bites.'

(68) West Circassian

**q-jə-βe-λeβʷə-β*
 CSL-3SG.ERG-CAUS-see-PST
 Intended: 'S/he has shown.'

Third, in Circassian with many predicates, omission of the dative applicative is accompanied by the change of the stem-final vowel /ə/ into /e/ (69), which is also found with antipassive derivatives from transitive predicates (70), see Arkadiev and Letuchiy (2021). This shows that the dative applicative and the argument it introduces in some way belong to the lexical representation of the predicate.

(69) West Circassian

- a. *adre-xe-r* *qe-zə-bgəne-xe-re* *š'ə?enəβe-m* *je-bgə-x*
 other-PL-ABS CSL-REL.ERG-leave-PL-DYN life-OBL DAT-curse-PL
 'Others are cursing the life that leaves them.'
- b. *ad-č'-jə* *feqʷeλ-gʷere* *ma-bge*
 there-INS-ADD peasant-some DYN-curse
 'Some peasant is cursing there as well.'

(70) Kabardian, Kuban dialect (Arkadiev and Letuchiy 2021: 491)

- a. *se* *ž'ane-r* *z-də-ne*
 1SG dress-ABS 1SG.ERG-sew-FUT
 'I will sew a dress.'
- b. *zə-z-βe-psexʷ-me* *jəʔane* *sə-de-ne*
 RFL.IO-1SG.ERG-CAUS-relax-COND then 1SG.ABS-sew.ANTIP-FUT
 'I will take a rest and then will do my sewing.'

Finally, in Ubykh (Fenwick 2011: 115–116) the dative is the only applicative preverb that takes cross-reference prefixes from the possessive series rather than from the regular indirect object one, compare (71a) and (71b).

(71) Ubykh (Fenwick 2011: 115, 110)

- a. *sə-ʁ-a-ʒʁe-n*
 1SG.ABS-3SG.PR-DAT-ask-PRS
 ‘I am asking him.’
- b. *ze-nejns^wə-n* Ø-ʒ’ə-na-k’e-qe
 one-young_man-OBL 3SG.IO-COM-3PL.ERG[CAUS]-go-PST
 ‘They married her (lit. made her go with) a young man.’

Dative complexes also show some peculiarities related to their ordering, see the next section.

6 Order of applicative complexes

When a predicate contains several applicative complexes, their order, at least partially, can be described via a default template. In particular, the following template seems to hold for all NWC languages: GRAMMATICAL APPLICATIVE(S) < SPECIAL LOCATIVE APPLICATIVE(S) < DATIVE APPLICATIVE(S). (72) shows a form containing all these kinds of applicatives:

(72) West Circassian

- t-jə-wəram* *asfal’t*
 1PL.PR-POSS-street asphalt
qə-t-fə-tər-a-r-jə-ʁe-λ-ha-ʁ
 CSL-1PL.IO-BEN-[3SG.IO]LOC:ON-3PL.IO-DAT-3SG.ERG-CAUS-lie-LAT-PST
 ‘He made them cover our street with asphalt (lit. put asphalt on our street) for us.’

In Abkhaz and Abaza, there is additional evidence that grammatical and locative applicatives occupy distinct slots in the wordform (see O’Herin 2001: 481–482), with the former farther from the root than the latter and separated from them by directional prefixes:

(73) Abaza

- j-[s-zə]-ʔa-[n]-χa-t*
 3SG.N.ABS-1SG.IO-BEN-CSL-LOC:inside-remain[AOR]-DCL
 ‘It has remained for me.’

The general locative applicatives found in Circassian and Ubykh behave differently from special locative applicatives. In West Circassian, according to Lander and Arkhangelskiy (2015), who provided the results of an experimental study of the ordering of the general locative, benefactive and comitative complexes, these preverbs tend (albeit are not obliged) to occur in that order (74). As a mirror image of that, for Ubykh Fenwick (2011: 98) argues that the general locative follows all other preverbs (although he notes that Charachidzé 1989: 384 proposed a different template, where the general locative applicative preceded all other applicatives), cf. (8) above and (75).

(74) West Circassian (elicited)

ʒ'ane š'a-fa-d-ja-da-ʁ

dress LOC-BEN-COM-3SG.ERG-sew-PST

'S/he sewed a dress there for him/her together with him/her'

(75) Ubykh (Fenwick 2011: 98)

š^we-le-g'a ʁe-beʒe š^w-χ'e-le-g'a-t^w-qe-n

2PL-ADD 3SG.PR-penis 2PL.IO-BEN-LOC-remain-PST-PL

'His penis remained for you all.'

Indeed, the order of applicative complexes cannot be reduced to any template, as first noticed by Jakovlev and Ashkhamaf (1941: 103–106). Importantly, at least in Circassian, we also observe scope-based effects in the order of applicatives. For example, the default association of a situation with some participant may require positioning of its applicative closer to the stem, probably that is why in (76a) the benefactive applicative expressing the addressee occurs to the right of the comitative applicative. Similarly, in causatives, a complex occurring closer to the stem is more likely to be interpreted with respect to the caused rather than the causing situation (76b). At the same time, if an applied object is relativized, i.e. presumably has wide scope over other arguments, it is normal to “move” its complex to the left of other complexes (76c).

(76) West Circassian (elicited)

a. *mwe s-ja-č'aʒe pis'me-r a-xe-me*

DEM 1SG.IO-POSS-boy letter-ABS DEM-PL-OBL.PL

[a-da]-[fe]-s-txə-š'tə-ʁ / ***[ʃ]-[a-de]-s-txə-š'tə-ʁ**

3PL.IO-COM-[3SG.IO]BEN-1SG.ERG-write-AUX-PST [3SG.IO]BEN-3PL.IO-COM. . .

'I was writing a letter to my son together with them.'

b. *sportsm'en-xe-r spartakiade-m*

athlete-PL-ABS competition-OBL

[š'a]-[ze-de]-d-ʁe-bena-ʁ

[3SG.IO]LOC-REC.IO-COM-1PL.ERG-CAUS-compete-PST

'We made the athletes participate in the competition together.'

*'We together made the athletes participate in the competition.'

- c. *mwe pis'me-r [zə-f]-[a-de]-p-txə-š'tə-ke-r*
 DEM letter-ABS REL.IO-BEN-3PL.IO-COM-2SG.ERG-write-AUX-PST-ABS
 'The one whom you were writing this letter together with them'

Caponigro and Polinsky (2011: 80–81) also reported that the order of the complexes in West Circassian may correspond to the scope of the quantifiers, so that the appearance of an applicative complex farther from the root implies its broader scope. In (77) the beneficiary phrase has scope over the comitative phrase (i.e. only the interpretation 'There is a girl for whom he made it with all the boys' is preferred with respect to the interpretation 'For all the boys with whom he made it there is some girl for whom this was done'). However, our consultants only partly confirm this.

- (77) West Circassian (Caponigro and Polinsky 2011: 81)
zeč'e-m-jə č'aḱe-xe-m zə pšaše-m [fə]-[ra-d]-jə-šə-ḱ
 all-OBL-ADD boy-PL-OBL one girl-OBL [3SG.IO]BEN-3PL.IO-COM-3SG.ERG-do-PST
 'He made it for one girl with all the boys.' (one > all, *all > one)

Finally, it is worth noting that at least in West Circassian the order of multiple dative complexes (possible when one of them introduces the causee in a causative construction involving a ditransitive stem) may depend on various factors including a person/number hierarchy (cf. Bagirokova, Lander, and Moroz 2017). Normally, the dative complex expressing the causee follows the dative indirect object belonging to the caused situation (78a), but if the latter is higher than the causee in the hierarchy 1SG > 2SG > 1PL > 2PL (presumably combined from the hierarchies 1 > 2 and SG > PL) both orders are possible, as shown by the ambiguity in (78b):

- (78) West Circassian (elicited)
 a. *qə-w-a-r-jə-ke-ʔ^wa-ḱ*
 CSL-2SG.IO[DAT]-3PL.IO-DAT-3SG.ERG-CAUS-say-PST
 's/he made them tell you that' / *'s/he made you tell them that'
 b. *qə-w-a-s-jə-ke-ʔ^wa-ḱ*
 CSL-2SG.IO-DAT-1SG.IO[DAT]-3SG.ERG-CAUS-say-PST
 's/he made me tell you that' / 's/he made you tell me that'

7 Special uses of applicatives

7.1 A-demotion

Probably the least expected function of applicatives, given their basic function of promotion of arguments, is the demotion of ergative arguments to indirect objects. This is

found mainly in potential constructions expressing ability, where the potential ergative argument is introduced via the benefactive applicative complex (79), and in inadvertitive constructions expressing that the expected ergative argument behaves as an accidental causer of the event and hence appears as an indirect object (80), but also probably in some reciprocal constructions (see below). Note that in most typical cases such indirect objects retain some properties of the transitive agent – e.g., the use of such constructions is almost restricted to transitive stems (i.e. stems that otherwise require an ergative agent) and, unlike prototypical applicative complexes, such expressions of the agent cannot be omitted. This goes against the idea that such constructions involve agentless (i.e. intransitive) stems which combine with applicatives introducing a completely distinct semantic role (see Lander 2022 for discussion).

(79) West Circassian (Letuchiy 2009: 355)

- a. *se harəfə-xe-r s-e-txə*
 1SG character-PL-ABS 1SG.ERG-DYN-write
 ‘I am writing characters.’
- b. *se harəfə-xe-r s-fe-txə-r-ep*
 1SG character-PL-ABS 1SG.IO-BEN-write-DYN-NEG
 ‘I cannot write characters.’

(80) West Circassian (Arkadiev and Letuchiy 2011: 503–504)

- a. *se s-jə-š'eweḅʷə-r sə-wəʔa-ḅ*
 1SG 1SG.PR-POSS-friend-ABS 1SG.ERG-wound-PST
 ‘I wounded my friend’
- b. *se səməʃaxew s-jə-š'eweḅʷə-r s-ʔeč'e-wəʔa-ḅ*
 1SG unintentionally 1SG.PR-POSS-friend-ABS 1SG.IO-INADV-wound-PST
 ‘I unintentionally wounded my friend’

In Circassian, the potential use of the benefactive is only available for transitive predicates, cf. an ungrammatical example based on an intransitive predicate in (81), see also Letuchiy (2012: 336–339). In general, it is also impossible to attach the inadvertitive to an intransitive predicate adding to it an involuntary agent or cause; however, the borderline between such putative constructions and the use of the same preverb in its etymological meaning ‘from under hand’ attested in Circassian and Ubykh is sometimes fuzzy, as shown in (82).

(81) West Circassian (Letuchiy 2009: 358)

- *č'aḱe-r / *č'aḱe-m fa-kʷe-r-ep*
 boy-ABS boy-OBL BEN-go-DYN-NEG
 Ungrammatical in the intended meaning: ‘The boy cannot go.’

(82) West Circassian

- a. *senefə-bʒe-r qə-ʔe-čʼ-e-zə*
 wine-horn-ABS CSL-hand-LOC:under-DYN-fall
 'The horn with wine falls from his hand.' (Rogava and Kerasheva 1966: 130)
- b. *pšʼə-m sə-ʔe-čʼe-kʷede-n*
 prince-OBL 1SG.ABS-hand-LOC:under-vanish.LAT-MOD
 'I'll perish from the hand of the prince.' (Rogava and Kerasheva 1966: 282)

The situation in Abkhaz-Abaza and Ubykh is different. Here the potential and inadvertitive markers appear both with transitive (83a), (84b) (usually behaving similarly to their Circassian counterparts, but see below) and intransitive (83b), (84a) predicates (see Hewitt 2008b *inter alia*). In the latter case, the most agentive absolutive argument retains its syntactic status while the potential and inadvertitive markers do not function as applicatives introducing any indirect object anymore.

(83) Abaza

- a. *knigá gʼ-s-zə-m-χʷf-əw-z-ʔ*
 book NEG-1SG.IO-POT-NEG-buy-IPF-PST.NFIN-DCL
 'I could not buy books.'
- b. *jará d-gʼə-z-fá-mə-j-ʔ*
 3SG.M 3SG.H.ABS-NEG.EMP-POT-CSL-NEG-come[AOR]-DCL
 'He could not come himself.'

(84) Ubykh (Fenwick 2011: 114)

- a. *q̇ex̣e-sʷečʼe-q̇e*
 INADV-laugh-PST
 'He could not help but burst out laughing.'
- b. *jə-χʼə-n ze-tát-gʷere q̇ex̣e-kʷ-q̇e*
 DEM-prince-OBL one-man-certain INADV-kill-PST
 'This prince accidentally killed a man.'

Curiously, Hewitt (1999) reports that in Abkhaz, in potential and inadvertitive forms derived from transitive stems, the ergative indexing can even be retained on a par (85a) or instead of (85b) the indirect object indexing.

(85) Abkhaz (Hewitt 1999: 201)

- a. *j-a-z-a-m-ga-jt*
 3SG.N.ABS-3SG.N.IO-POT-3SG.N.ERG-NEG-take[AOR]-DCL
 'It could not take it.'
- b. *a-xba f-yə-k z-a-m-ga-jt*
 DEF-boat five-CLH-NUM POT-3SG.N.ERG-NEG-take[AOR]-DCL
 'The boat could not carry five persons.'

Finally, according to one of the interpretations (see e.g. Lander and Letuchiy 2010: 270), reciprocal constructions coindexing the absolutive and ergative arguments are basically formed by demoting the ergative argument by means of some applicative prefix (in Circassian probably related to the instrumental applicative) and replacing the corresponding indexing prefix with a reciprocal morpheme. This interpretation, which is illustrated by glosses in (86a), explains the typologically unusual binding of the agent by the patient (under such an account treated as binding of an indirect object by the absolutive argument) as well as some morphophonological facts not to be discussed here, but perhaps implies a violation of the rule stating that the dative applicative follows all others (see Section 5). Moreover, some speakers of West Circassian marginally allow even a combination of this “reciprocal” applicative affix with the inadvertive applicative (86b). Yet the standard description presented, for example, in Letuchiy (2007) treats the sequences such as *ze-re-* in (86a) as single reciprocal prefixes, and it cannot be excluded that examples like (86b) result from morphological reanalysis of reciprocal markers as applicative complexes.

(86) West Circassian

- a. *ade tade tə-š'ə-ze-re-kwetə-ž'ə-š't?*
 but where 1PL.ABS-LOC-REC.IO-REC-find-RE-FUT
 ‘But where will we find each other again?’
- b. *tə-ze-ʔeč'e-re-wəʔa-be-x*
 1PL.ABS-REC.IO-INADV-REC-wound-PST-PL
 ‘We wounded each other accidentally.’ (elicited; Lander and Letuchiy 2010: 270)

7.2 Last resort applicative relativization in Circassian

As mentioned in Section 3.2, applicatives may facilitate relativization. Besides that, in Circassian there are cases where the appearance of an applicative is possible only if the corresponding argument is relativized, e.g. in embedded clauses referring to place, time or reason. For example, the destination with the predicate ‘go’ is not normally introduced via an applicative (87a), but relativization of this participant requires an applicative (87b):

(87) West Circassian (elicited)

- a. *a-š' sə(*-de)-kʷa-ʁ*
 that-OBL 1PL.ABS-LOC:enclosure-go-PST
 ‘I went there.’
- b. *sə-zə-de-kʷa-be-r*
 1SG.ABS-REL.IO-LOC:enclosure-go-PST-ABS
 ‘(the place) where I went’

In other cases, an argument cannot be expressed in independent clauses at all but can be relativized after applicativization. For example, reason cannot appear as an argument in independent clauses (88a) but appears as a relativized applied indirect object in relative clauses (88b). The applicative morpheme introducing reason coincides with the locative preverb ‘under’.

(88) West Circassian (elicited, Lander 2012: 290)

- a. *we-dejə-m wəʒape sə-kʷa-ʁ-ep* / **sə-čʰe-kʷa-ʁ-ep*
 weather-bad-OBL U. 1SG.ABS-go-PST 1SG.ABS-RSN-go-PST-NEG
 ‘I did not go to Ulyap due to bad weather.’
- b. [*wəʒape sə-(z)-čʰe-mə-kʷa-ʁe we-r*]
 U. 1SG.ABS-REL.IO-RSN-NEG-go-PST weather-ABS
qə-ze-čʰe-čʰə-žʰə-ʁ
 CSL-REC.IO-LOC:under-go_out-RE-PST
 ‘The weather, due to which I did not go to Ulyap, improved.’

Interestingly, since an applicative occurs only if the applied object is relativized, the appearance of the relative prefix turns out to be optional. The subsequent development where a (former?) applicative becomes the sole marker of relativization is observed in Kabardian constructions with relativization of time. In both Circassian languages relativization of time can exploit the general locative applicative, but in Kabardian it is regularly used as the only marker of subordinate temporal clauses (89):

(89) Kabardian, Besleney dialect

- bzəλxʷəʁe-r šʰə-ʔʷə-čʰə-žʰə-m psəne-m jə-h-a*
 woman-ABS TEMP-LOC:near-go_out-RE-OBL well-OBL LOC:inside-go_in-PST
pšəxʷə-m-čʰe
 chain-OBL-INS
 ‘When the woman went away, he used the chain to get into the well.’

A different path of development which retains the relative prefix is found in Circassian subordinate clauses describing the manner (90) and the fact of the event (91). Such clauses display properties of relativization but contain a dedicated marker (*zere-* in West Circassian, *zerə-* in Kabardian). At least diachronically but probably synchronically as well this marker can be analyzed as a sequence of the relative prefix and an applicative introducing it and presumably related to the instrumental applicative (for a discussion, see Bizhoyev 1991: 89–91; Gerasimov and Lander 2008; Arkadiev and Gerasimov 2019):

(90) West Circassian

muzəke-r qə-b-g^wə-rə-ʔ^we-nə-m feš
 music-ABS CSL-2SG.IO-heart-INSTR-say-MOD-OBL for
maqe-xe-r zere-txə-ʔe-xe-m wə-q-je-ʒ'e-n (. . .) faje
 sound-PL-ABS REL.MNR-write-RES-PL-OBL 2SG.ABS-CSL-DAT-read-MOD must
 'To understand music, you should (be able to) read how sounds are written down.'

(91) West Circassian

s-ja-šewex^w ʒaž'e ze.r-ja-mə-ʔe-r d-ʔe-wənefə-ʔe
 1SG.PR-POSS-friend fault REL.FACT-POSS-NEG-be-ABS 1PL.ERG-CAUS-turn_out-PST
 'We found out that it was not my friend's fault (lit. that my friend has no fault).'

In Abkhaz-Abaza, subordinate clauses parallel to the ones described in this section also have syntactic properties of relative clauses, but there is no morphological evidence that their markers can be treated as applicatives synchronically or diachronically.

7.3 Neutralized applicatives

In some examples, we observe frozen applicatives whose combinations with the root are lexicalized to the extent that they appear together with the root in a stem rather than in the argument structure zone. Such applicatives do not introduce any indirect objects. An example is presented by the Circassian monovalent intransitive predicate 'search', whose root combines with the "former" locative applicative *lə-* 'after' (as shown in [92a], where it follows the negative prefix and hence belongs to the stem). Interestingly, Circassian languages also have an intransitive predicate 'search', where the argument being searched is introduced by the same applicative as a genuine indirect object (92b).

(92) West Circassian

- a. *berə mə-lə-χ^wa-ʔe-ew ʔeχ^weʔə-r q-ə-ʔ^wetə-ž'ə-ʔ*
 long NEG-search-PST-ADV herd-ABS CSL-3SG.ERG-find-RE-PST
 'He found the herd without a long search (lit. not having searched for a long time).'
- b. *təʔ^waʔ^we-m berə lə-mə-χ^wa-ʔe-ew q-a-ʔ^wetə-ʔ*
 thief-OBL long LOC:after-NEG-search-PL-ADV CSL-3PL.ERG-find-PST
 'They found the thief without searching him for a long time.'

In fact, Gishev (1983: 109) also provides some other examples where special locative preverbs no longer appear in the argument zone but come together with the root. However, Circassian languages even show an example where a whole complex involving a dative applicative does not change the argument structure but rather fulfills a derivational function. In (93) the combination of the reciprocal suffix introduced by

the dative applicative and the root ‘hit’ is interpreted as ‘fight’, but the corresponding patient-like argument may be introduced by a further dative applicative:

(93) West Circassian

je-[z-e-wa]-x-a, ə-wəčʰə-x-a?
 DAT-REC.IO-DAT-hit-PST-Q 3SG.ERG-kill-PST-Q
 ‘Did he fight with him? Did he kill him?’

A similar case is found in Abaza. Here the prefix *a(j)-* (regularly used as reciprocal) combining with the root ‘hit’ occupies the slot immediately preceding the root rather than the regular slot in the middle of the prefixal chain; this is shown by the fact that it can be separated from the cross-referencing prefix it introduces by other material such as negation, see (94).

(94) Abaza (elicited)

w-ʕa-s-m-áj-sə-n
 2SG.M.ABS-CSL-1SG.IO-NEG-APPL-hit-NEG.IMP
 ‘Don’t beat me!’

While such frozen applicatives usually do not introduce any arguments anymore, there is no evidence that they have been reanalyzed as parts of the root, either.

8 Lookalike: transitivizing ablaut

In Circassian languages, there are applicative-like constructions not fitting into the canonical picture described above. They mainly concern intransitive predicates of motion like *kʷe* ‘go’, which can be transitivized by changing the final vowel /e/ into /ə/, whereby the absolutive argument of the BC denoting the moving entity becomes the ergative A, while the new absolutive object denotes the path or distance covered by motion, compare (95a) and (95b).

(95) West Circassian

- a. *a-r kʷa-xe*
 DEM-ABS go-PST
 ‘S/he went.’ (elicited)
- b. *a-šʰ xʷegʷə-be ə-kʷə-x*
 DEM-OBL way-many[ABS] 3SG.ERG-go.TR-PST
 ‘He has traveled many roads.’

The transitive versions of such predicates are systematically used in constructions denoting circular or perambulatory motion, which employ directional suffixes. Such predicates can be used both with an absolutive argument denoting the spatial region encircled or covered by motion (96a), as well as without any referential second argument (96b) or with such an argument introduced as a locative AppP rather than an absolutive (96c).

(96) West Circassian

- a. *t-jə-gʷap-ew* *jeʒ'ape-r* *qe-t-kʷə-ha-ɐ*
 1PL.PR-POSS-pleasure-ADV school-ABS CSL-1PL.ERG-go.TR-CIRCUM-PST
 'We visited (lit. went over) the school with pleasure.'
- b. *mefe-rjenə-m* *qe-s-kʷə-ha-ɐe-m-jə*
 day-whole-OBL CSL-1SG.ERG-go.TR-CIRCUM-PST-COND-ADD
šə-xe-m-re *zeweλ-xe-m-re* *a-neməč'*
 horse-PL-OBL-COORD soldier-PL-OBL-COORD 3PL.IO-except
s-λeɐʷə-r-ep
 1SG.ERG-see-DYN-NEG
 'Even though I have walked around / traveled for the whole day, I don't see anybody but horses and soldiers.'
- c. *məjeqʷape* *jə-wəram-xe-m* *q-a-š'-a-kʷə-ha-ɐ*
 M. POSS-street-PL-OBL CSL-3PL.IO-LOC-3PL.ERG-go.TR-CIRCUM-PST
 'They walked around the streets of Maykop.'

This use of ablaut for transitivity of basic intransitive predicates (for more on the /e/ ~ /ə/ ablaut in Circassian, see Kumakhov 1974; Kumakhov and Vamling 2009: 34–35) is a mirror-image of the more productive antipassive formation mentioned above in Section 5, which changes the root-final /ə/ into /e/. Cf. (97) and Arkadiev and Letuchiy (2021) for more details and a discussion of the problematic directionality of these derivations.

(97) West Circassian

- a. *haləɐʷ-jə-blə-r* *se* *s-šxə-ɐe*
 bread-LNK-seven-ABS 1SG 1SG.ERG-eat-PST
 'I ate seven pieces of bread.'
- b. *a-xe-r* *ma-šxe-xe-me,* *te-rjə* *t-e-šxe*
 DEM-PL-ABS DYN-eat.ANTIP-PL-COND 1PL-ADD 1PL.ABS-DYN-eat.ANTIP
 'If they eat, we eat, too.'

The same pattern of ablaut has another productive use only indirectly related to valency and more clearly equipollent than the ones manipulating transitivity, i.e. the so-called introvert (lative) and extravert (relative) forms of verbs denoting real or

metaphorical motion and always requiring a locative applicative (see e.g. Smeets 1984: 442–445; Arkadiev and Letuchiy 2011: 500), shown in examples (98).

(98) West Circassian (Smeets 1984: 442)

- a. *məʒ^we-r tje-sə-ʒe-š't*
 stone-ABS LOC:top-1SG.ERG-throw.LAT-FUT
 'I will throw the stone on it.'
- b. *məʒ^we-r tje-sə-ʒə-š't*
 stone-ABS LOC:top-1SG.ERG-throw.ELAT-FUT
 'I will throw the stone from it.'

9 Conclusions

In this chapter we have offered a necessarily incomplete survey of the rich system of applicatives in the Northwest Caucasian languages, focusing primarily on West Circassian. According to the questionnaire proposed as a guideline for this volume's contributions, the constructions presented can be characterized as follows:

Morphology

- All NWC applicatives are prefixes occurring in the argument structure zone of the prefixal chain.
- Canonically, applicative prefixes are immediately preceded by person-number(-gender) prefixes indexing the applicativized participant. Deviations from this pattern include prefix displacement in Circassian, absence of third person singular non-human prefixes with some applicatives in Abkhaz and Abaza, and instances of complex applicative prefixes introducing the same argument.
- There are special “dative” applicatives that show idiosyncratic allomorphy and occupy a dedicated slot in the verbal template closest to the root.
- Applicativized predicates do not show any morphological idiosyncrasies in their inflection.

Syntax

- Abaza, Abkhaz and Ubykh applicative constructions are D-applicatives introducing indirect objects encoded like the recipient of ‘give’; applicative constructions in Circassian, however, introduce arguments which have no parallels with non-derived verbs, for the simple reason that even the recipient of ‘give’ in these languages is introduced by an applicative.
- Applicatives combine with both intransitive and transitive base predicates.

- In general, applicativization is optional in that in many cases the participant expressed by an AppP can be encoded by alternative means.
- Apart from the potential, inadvertitive and (arguably) detransitivizing reciprocal applicatives that reassign the original transitive agent from the ergative slot to that of the indirect object, applicativization does not in any way affect the encoding and syntactic status of the core arguments (S, A and P).
- With the same exception, applicativization is valency-increasing.
- Applicativization does not show restrictions in combination with such valency-changing operations as causativization, reflexivization and reciprocalization; in Circassian, bivalent intransitive predicates whose patient-like argument is introduced by the dative applicative can undergo antipassivization eliminating that participant.

Semantics

- The applied phrase bears such semantic relations as beneficiary, external possessor, maleficiary, co-participant, instrument, means, path, location, and a large number of more concrete spatial meanings. The semantic roles of the AppPs introduced by the dative applicatives include ditransitive recipients, causees of causative constructions based on transitive predicates, and low-affected non-agentive participants of verbs of impact, speech, perception, and cognition.
- The special uses of applicatives in relative clause constructions include the expression of such meanings as location, time, reason, manner and, by extension, fact.

Lookalikes

A potential lookalike involves an unproductive transitivity derivation attested with a few verbs of motion and introducing the P participant expressing path or distance.

Abbreviations

ABS	absolutive
ADD	additive
ADV	adverbial marker
ANTIP	antipassive
AOR	aorist
APPL	applicative
AUX	auxiliary marker
BEN	benefactive
CAUS	causative
CIRCUM	circumferential 'around'
CLH	human classifier
COM	comitative

COMP	comparative
COND	conditional
COORD	coordination marker
CSL	cislocative
CVB	converb
DAT	dative applicative
DCL	declarative
DEF	definite
DEM	demonstrative
DYN	dynamic
ELAT	elative
EMP	emphatic
ERG	ergative
EST	estimative
F	feminine
FACT	factual
FUT	future
H	human
HPL	human plural
IMP	imperative
INADV	inadvertitive
INDF	indefinite
INS	instrumental case
INSTR	instrumental applicative
IO	indirect object
IPF	imperfective
LAT	lative
LNK	linking morpheme
LOC	locative preverb
M	masculine
MAL	malefactive
MNR	manner
MOD	modal marker
MSD	masdar
N	nonhuman
NEG	negation
NFIN	nonfinite
NMZ	nominalization
NPST	nonpast
NUM	numeral marker
OBL	oblique case
PL	plural
POSS	possessive
POT	potential
PP	postpositional series of personal prefixes
PR	possessor
PRS	present
PST	past
PURP	purposive

PVB	preverb
Q	interrogative
RE	refactive
REC	reciprocal
REL	relativization
RES	resultative
RFL	reflexive
RS	retrospective shift
RSN	reason
SG	singular
ST	stative
TEMP	temporal
TR	transitive
TRANS	translative
UP	motion upwards
-	default morpheme boundary
–	productive nominal compound boundary
=	clitic boundary

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26 Applicative constructions in Kartvelian

Abstract: Two types of applicative constructions—benefactive and superessive (or locative)—occur in all four languages of the Kartvelian family (Georgian, Svan, Mingrelian and Laz). The principal marker of Kartvelian applicatives is a single-vowel morpheme preceding the verb root (“preradical vowel”). In this chapter, the two types of applicatives are illustrated with examples from Georgian and its sister languages. The applicatives are compared to “version”, a grammatical category commonly employed in Kartvelian linguistics, which indicates the orientation of the action denoted by the verb either toward the referent of the subject, or that of the indirect object. Also presented are *applicativa tantum* with lexically-specified benefactive or superessive applicative markers; double applicatives; and morphological and syntactic lookalikes. The chapter includes a discussion of the origin of the preradical vowels which mark applicatives in Kartvelian. Whereas the applicative markers of other language families tend to come from adpositions or serial verbs, no such source can be identified for Kartvelian preradical vowels, which are clearly very ancient in this language family.

1 The Kartvelian language family

Kartvelian or South Caucasian is one of the three language families endemic to the Caucasus region, along with the Abkhaz-Adyghean or West Caucasian family, and the Nakh-Daghestanian or East Caucasian family. Despite numerous attempts, no conclusive demonstration has yet been made that these families are genetically related to each other, nor to any known languages spoken elsewhere (Tuite 2008; Comrie 2008; Daniel and Lander 2011). The Nostratic hypothesis, according to which Kartvelian is distantly related to Indo-European, Uralic, Altaic and several other Eurasian families, remains controversial (Klimov 1991, Manaster Ramer 1995).

The Kartvelian family comprises four languages, all spoken in or adjacent to the Transcaucasian republic of Georgia. With close to 4 million speakers (Ethnologue: 3,898,550), Georgian is by far the largest language in the family, and the only one with a long tradition of use in writing, since at least the 5th century AD. Numbers for the other Kartvelian languages cannot be ascertained with precision. In Georgian censuses since Soviet times, speakers of any Kartvelian language are counted as Georgian speakers. Estimates of the size of the Mingrelian (a.k.a. Megrelian) speech community, based

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in western Georgia, range from 300,000 to 500,000 (Ethnologue: 345,530). Almost all speakers of Laz are in northeastern Turkey, and estimates of their numbers vary from 22,000 (Ethnologue) to over 20 times that many (Holisky 1991; Lacroix 2009; Kavakli 2015). Svan is the outlier in the Kartvelian family, having separated from the proto-language as early as the Bronze Age. The speech community is estimated at between 14,000 (Ethnologue) and 50,000 (Gippert 2005). Both Laz and Svan are considered to be “threatened” languages by Ethnologue, that is, the number of speakers is believed to be declining.

Comparative work on Kartvelian goes back to the 19th century, and several etymological dictionaries have been compiled (Klimov 1964; Fähnrich/Sarjveladze 2007). In terms of morphology and syntax, the four languages share a significant number of traits, especially with respect to the structure of the verb, but also some striking differences in case marking and person/number agreement (Harris 1991; Boeder 2005).

The Kartvelian verb is primarily agglutinative (with some morphophonemic complexity, especially in Svan). Its basic architecture can be described in terms of morphemic zones centered around the root (Zone I, slot 0, in Table 1). Zone II, the verb stem includes the root and a string of suffixes (mostly of VC shape) encoding valence, *Aktion-sart*, and verbal plurality. For the most part, Zone II elements occur in participles and verbal nouns as well as finite verbs. Bracketing the stem are the zone III morphemes, which include tense, aspect and mood suffixes limited to finite verbs (slots 8 and 9), and the preradical vowels (slot –1) which will be discussed in detail in the remainder of this chapter. Zone III in turn is flanked by person and number markers (slots –2 and 10), which can reference one or two clausal arguments. The outermost layer includes preverbs denoting direction, orientation and/or aspect, and clitics (especially abundant in Old Georgian and Svan).

Table 1: The internal structure of the Kartvelian verb.

Slots	–4, –3	–2	–1	0	1 to 7	8, 9	10	11
I. root				Root				
II. stem formants					causative/ passive, verbal plurality, series marker			
III. verb class, tense/mood			“version”			imperfect, tense/ mood		
IV. person and number		person					person/ number	
V. clitics and preverbs	preverbs, clitics							clitics

Here is a Georgian verb composed of morphemes from all five zones:

$v[\check{s}e^{-4}_{-IV}[v^{-2}_{-III}[e^{-1}_{-II}[[b^0]-m^2-ev^3-in^5-eb^6-o^7]-d^8-e^9]-t^{10}]]$
 PVB-S1-PRV-bind-SM-CAUS-CAUS-SM-EXT-IMPF-OPT-PL
 ‘were we to let ourselves be bound to it’

Of particular relevance for the analysis of Kartvelian applicatives are the morphemes in slots –2 and –1. The personal prefixes in slot –2 are commonly separated into sets of “subject” and “object” markers, as shown in Table 2:

Table 2: Person prefixes in the Old Georgian and Svan verb (slot –2).

Old Georgian		Svan	
“Subject”			
1st	v-	1SG	xw-
		1EXCL	xw-
		1INCL	/-
2nd	x/h/∅-	2nd	x-
3rd	—	3rd	—
“Object”			
1SG/EXCL	m-	1SG	m-
		1EXCL	n-
1INCL	gw-	1INCL	gw-
2nd	g-	2nd	j-
3rd	x/h/∅-	3rd	x/∅-

However, only one prefix at a time can occupy slot –2, with the sole exception of S1 v- + O3 x/h- (in Georgian only). Which prefix appears is conditioned by hierarchies of syntactic role (O > S) and person (1,2 > 3). For example, in the Svan verb *j-i-t'q'b-e* [O2-PRV-roast-PRS] ‘I/he/she roasts it for you’, the only person marker is O2 *j-*, which could just as well be analyzed as a marker of both 2nd-person object and 1st- or 3rd-person subject. In this respect, the Kartvelian person-prefix system resembles the inverse/direct or hierarchical person-marking systems of Algonquian and some other New World languages (Zúñiga 2006; Tuite 2021), but in the glosses, the traditional designations of these prefixes as “subject” (S) and “object” (O) markers will be used.

The principal markers of applicatives are the preradical vowels (henceforth, PRV) in slot –1 (see Table 3). The Mingrelian and Laz reflexes of *a- and *e- reflect regular sound correspondences. The irregular correspondence between the Svan prefix *o-*, and *u-* in the other languages, remains unexplained.

Table 3: PRVs in the Kartvelian languages and the reconstructed ancestral language.

Proto-Kartvelian	Georgian	Svan	Mingrelian	Laz
*a-	a-	a-	o-	o-
*i-	i-	i-	i-	i-
*u-	u-	o-	u-	u-
*e-	e-	e-	a-	a-

Georgian is well known for its intricate system of case-marking and agreement. Transitive verbs and a large class of “active” intransitives assign different cases to their subjects and direct objects according to tense and aspect, whereas the remaining “inactive” intransitives assign nominative case in all tenses. In the present-series tenses (Series I: present, future, imperfect, conditional, present and future conjunctive), case is assigned according to a nominative-accusative pattern, with dative case marking both direct and indirect objects. In the aorist-series paradigms (Series II: aorist and optative), however, transitive and active intransitive verbs assign ergative case to the subject and nominative to the direct object. Since inactive intransitives do not undergo this shift of case-assignment properties, the resulting alignment can be characterized as split-S or active (Harris 1990; Tuite 2017). Finally, in the perfect-series tenses (Series III: present perfect, pluperfect, perfect conjunctive), the clause undergoes “inversion” (Shanidze 1953/1980 § 241; Harris 1981: 117–127): the subject takes many of the attributes of an indirect object (dative case, object agreement in the verb), whereas the direct object is assigned nominative case and is linked to subject agreement.

(1) Georgian

a. Series I: present

bič'-i leks-s Ø-u-c'er-s deda-s
 boy-NOM poem-DAT O3-PRV-write-PRS.S3SG mother-DAT
 ‘The boy writes a poem for his mother.’

b. Series II: aorist

bič'-ma leks-i da-Ø-u-c'er-a deda-s
 boy-ERG poem-NOM PVB-O3-PRV-write-AOR.S3SG mother-DAT
 ‘The boy wrote a poem for his mother.’

c. Series III: present perfect

bič'-s leks-i da-Ø-u-c'er-i-a ded-is-tvis
 boy-DAT poem-NOM PVB-O3-PRV-write-PERF-S3SG mother-GEN-for
 ‘The boy apparently wrote a poem for his mother.’

Svan morphosyntax is very similar to that of Georgian, as far as split-S patterning and inversion are concerned. Mingrelian and Laz, although closely-related languages, diverge in interesting ways from Georgian and from each other. In Mingrelian, the

so-called ergative ending has become for all intents and purposes the aorist-series allomorph of the nominative, since it occurs with all types of intransitives, regardless of their semantic traits (e.g. *dzapi-k dačxir-s kimtič'u* [thread-ERG fire-DAT was.burnt] ‘the thread was burnt up in the fire’; Q’ipshidze 1914: 11). As for Laz, split-S alignment has been extended to almost all tenses (Lacroix 2009), including those of the present series, in most dialects; whereas case-marking of core arguments has disappeared completely in the Ardeşen varieties (Kutscher, Mattissen and Wodarg 1995).

2 Applicatives in Kartvelian

In this section I will present the two types of applicatives which I ascribe to the Kartvelian languages. Both are what Zúñiga and Creissels label as “D-applicatives”, in that they accord indirect-object status to less prominent arguments.

2.1 Applicatives and the category of “version”

In most previous work on applicatives in the Kartvelian languages, the object of investigation is defined according to criteria specific to syntactic frameworks in the GB/Minimalist tradition (McGinnis 2004; Lomashvili 2010; Öztürk 2013; Bondarenko 2015; Nash 2017). While these criteria are not necessarily relevant to the approach I take here, two of the constructions the above-mentioned authors classify as applicative are identified as such in this chapter as well. One characteristic common to all inventories of applicatives in Kartvelian is their grounding in the grammatical category known as “version” (*G kceva*). This term was coined by Shanidze (1920, 1925) a century ago, and has been employed in almost all descriptive and pedagogical grammars of Georgian published since then. In his initial definition of version, Shanidze (1925), drawing upon earlier classifications of Kartvelian valence-marking phenomena, such as those of Uslar (1861/1887) and Marr (1925: 136–141), distinguished five types of version, signaled by PRVs: (i) “objective” (*sasxviso* ‘for another’) in /i/ and /u/; (ii) “subjective” (*sataviso* ‘for oneself’) in /i/; (iii) “superessive” (*sazedao* ‘for upon’) in /a/; (iv) *satanao* ‘for taking along’, to designate indirect object markers unaccompanied by a PRV (which I will label as “unmarked version”); and (v) “neutral” (*saarviso* ‘for no one’) for the basic construction. Some years later, Shanidze (1953/1980 § 393) revised his definition of version, shifting the focus from valence to the signalling of a relation of “possession” (*k’utvnileba*) or “designation” (*danišnuleba*) between the theme (the direct object of a transitive verb or the subject of an intransitive verb), on the one hand, and the indirect object or agent, on the other (see also Boeder 1969, 2021). Version in this newer sense was reduced to a three-way contrast among objective, subjective and neutral versions. The superessive was assigned to a new category, called “situation” (Shanidze 1953 § 434), and the

unmarked *satanao* was reanalyzed as a sub-type of the neutral version. Here are examples of each type of version, as well as neutral version, in Georgian and Svan (there is no distinct unmarked version in Svan):

(2) Georgian and Svan

a. Basic construction (neutral version)

G *kali* *c'eril-s* Ø-*c'er-s*
 S *zuräl* *läir-s* *ä-yr-i*
 woman:NOM letter-DAT PRV-write-S3SG.PRS/PRS¹
 'The woman writes a letter.'

b. Objective version, 1st p. indirect object

G *kali* *c'eril-s* ***m-i-c'er-s***
 S *zuräl* *läir-s* ***m-i-yr-i***
 woman:NOM letter-DAT O1SG-PRV-write-S3SG.PRS/PRS
 'The woman writes a letter **for me**.'

c. Objective version, 3rd p. indirect object

G *kali* *c'eril-s* *bavšv-s* Ø-***u-c'er-s***
 S *zuräl* *läir-s* *bepšw-s* ***x-o-yr-i***
 woman:NOM letter-DAT child-DAT O3-PRV-write-S3SG.PRS/PRS
 'The woman writes a letter **for the child**.'

d. Subjective version

G *kali* *p'irjvar-s* ***i-c'er-s***
 S *zuräl* *st'ārun-s* ***i-yr-i***
 woman:NOM CROSS-DAT PRV-write-S3SG.PRS/PRS
 'The woman makes the sign of the cross (lit. writes the cross **on herself**).'

e. Superessive version

G *kali* *saxel-s* *kva-s* Ø-***a-c'er-s***
 S *zuräl* *žaxa-s* *bač-s* ***x-ä-yr-i***
 woman:NOM name-DAT stone-DAT O3-PRV-write-S3SG.PRS/PRS
 'The woman writes her name **on the stone**.'

f. Unmarked version

G *kali* *c'eril-s* *bavšv-s* ***s-Ø-c'er-s***
 woman:NOM letter-DAT child-DAT O3-PRV-write-S3SG.PRS/PRS
 'The woman writes a letter **to the child**.'

Of the above-mentioned types of version, only two correspond to applicatives in the strict sense advocated by Zúñiga and Creissels: objective, which will be labelled as “benefactive applicative” in this chapter, and superessive. Subjective and unmarked ver-

¹ In all these examples, the Georgian verbal suffix *-s* denotes person, number, role, and present tense; the Svan verbal suffix *-i* only denotes present tense.

sions represent what Zúñiga and Creissels designate as morphological and syntactic lookalikes, respectively, and will be discussed in Section 4 (Table 4).

Table 4: Shanidze’s versions and the associated applicatives.

PRV	version (Shanidze 1925)	this chapter
*i-/ *u-	objective (<i>sasxviso</i>)	benefactive applicative, § 2.2
*a-	superessive (<i>sazedao</i>)	superessive applicative, § 2.3
*i-	subjective (<i>satavis</i>)	(morphological lookalike, § 4.1)
Ø-	unmarked (<i>satanao</i>)	(syntactic lookalike, § 4.2)

2.2 Objective version

2.2.1 The benefactive applicative

Shanidze’s objective version (*sasxviso kceva*) is identified as a type of applicative in all studies of Kartvelian morphosyntax that employ the term “applicative”, whatever the author’s theoretical orientation might be. One of its more noteworthy features is the allomorphy of the PRV, which is *i- with 1st and 2nd person indirect objects, and *u- with 3rd person objects (except in Svan, which has 3rd-person *o-*). Compared to the basic construction, the benefactive applicative takes an additional argument, which has the characteristics of an indirect object: it is assigned dative case and is linked to object agreement in the verb.

With respect to semantics, Boeder (2021 § 3.6.17) identifies two types of indirect objects added in the benefactive applicative construction, which he labels “allative/ adessive” and “beneficiary/experiencer”. The first type of applied object denotes a referent toward, near or at which the action occurs. Here is a passage from an Old Georgian translation of the Book of Genesis which contains two such constructions:

(3) Old Georgian

da-a-g-eb-s ‘spreads/lays sthg. out’ > *da-m-i-g-eb-s* ‘spreads/lays sthg. out **for/ before me**’

dg-a-s ‘stands’ > *m-i-dg-a-s* ‘stands **near/by me**’

da da-Ø-u-g-o mat da čam-es. xolo twit c’ina
and PVB-O3-PRV-set-PST.S3SG 3PL:DAT and eat-PST.S3PL but self before
Ø-u-dg-a mat xe-sa kweše

PVB-O3-PRV-stand-PST.S3SG 3PL:DAT tree-DAT beneath

‘(He brought butter and milk and the calf that he prepared), and he set these **before them**, and they ate. But he stood **nearby before them** under a tree.’ (Gen 18:8)

The beneficiary/experiencer type of indirect object denotes the one for whose benefit, detriment or interest the action occurs. Here are two more Old Georgian examples:

(4) Old Georgian

ay-a-šen-eb-s ‘builds sthg.’ > *ay-m-i-šen-eb-s* ‘builds sthg. **for me**’
ay-Ø-u-šen-a *mun abraam sak’urtxevel-i upal-sa*
 PVB-O3-PRV-build-PST.S3SG there A.[ERG] altar-NOM lord-DAT
 ‘Abraham built an altar there **to the Lord**.’ (Gen 12:7)

(5) Old Georgian

mo-drek’-s ‘bends sthg.’ > *mo-m-i-drek’-s* ‘bends sthg. **to/for me**’
mo-m-i-drik’-e *me sarc’q’wal-i šeni*
 PVB-O1-PRV-bend-PST.S1/2 1SG water:jug-NOM 2SG.POSS[NOM]
 ‘Lean down your water-jug **for me** (so that I may drink).’ (Gen 24:14)

(6) Svan

twep-n-i ‘is lost’ > *m-i-twp-en-i* ‘is lost **to me**’
isk’wi iybāl ešiy dem ĵ-i-twep-n-i
 your fate[NOM] nonetheless not O2-PRV-lose-INTR-SM
 ‘Your fate will nonetheless not be lost **to you**.’ (TK 644)

(7) Svan

sgur ‘sits’ > *m-i-sgur* ‘sits **by/next to me**’
därjäl nensga x-o-sgur-x
 D.[NOM] between O3-PRV-sit-PL
 ‘Darjil sits **between them**.’ (TK 654)

The benefactive applicative in Laz and Mingrelian covers essentially the same semantic range as that of Georgian and Svan. In his grammar of Laz, Lacroix (2009: 492–495) identifies recipient and deputative types of beneficiary, and also maleficiaries (see also Gérardin and Rostovtsev-Popiel 2016):

(8) Laz

- a. *k’od-um-s* ‘builds sthg.’ > *m-i-k’od-um-s* ‘builds sthg. **for me**’
sumi-s-ti ayi-ayi oxoyi d-Ø-u-k’od-u-doren.
 three-DAT-ADD one-one house:NOM PVB-O3-PRV-build-AOR.S3SG-INDIREV
 (Someone told me) ‘He built a house **for each of the three of them**.’
- b. *nax-um-s* ‘washes sthg.’ > *m-i-nax-um-s* ‘washes sthg. **for me**’
mo-m-č-i do ma do-g-i-naxv-a-ya
 PVB-O1-give-S1/2 and 1SG PVB-O2-PRV-wash-OPT-QUOT
 (She said) ‘Give me (the clothes) and I will wash them **for you**.’

segments the benefactive applicative of the Pazar dialect of Laz into both types, depending on the role of the applied object: Beneficiary indirect objects are generated by a high applicative configuration, whereas recipient and goal indirect objects (Boeder's allative/adessive) are the output of low applicatives.

2.2.2 *Applicativa tantum* with lexically-specified benefactive markers

In addition to verbs with contrasting basic and benefactive-applicative forms, Georgian and its sister languages have a certain number of verbs for which the basic form contains objective version markers.

(a) Primary statives in objective version. Most such benefactive *applicativa tantum* are intransitive verbs with DAT-case experiencer subjects (Table 5). These cluster in the semantic fields of cognition and positive emotions, whereas the primary statives with no PRV or the PRV *a-, on the whole, denote psycho-physiological states, negative emotions and possession (cf. M. Mach'avariani 1987: 33–34).

Table 5: Cognate primary statives with benefactive-applicative markers.

Meaning	Georgian	Zan	Svan
'I love sb./sthg.'	<i>m-i-q'var-s</i>	<i>m-i-ʔor-s</i>	--
'I prefer sthg.'	--	<i>m-i-sx-un-u</i>	<i>m-i-cx-a</i>

(b) Transitive verbs with lexically-specified objective version, but no indirect object. Shanidze (1953/1980 § 400) identified a small number of Georgian bivalent transitive verbs with benefactive-applicative markers in their basic forms, such *da-Ø-u-k'rav-s* 'plays sthg. (instrument or piece of music)', which in most varieties of Modern Georgian take no indirect object, despite the apparent O3 marking.

2.3 Supressive version

2.3.1 The superessive applicative

The superessive applicative, expressed by the PRV *a- (= o- in Mingrelian and Laz), is less common and less productive than the benefactive applicative, but it is by no means rare. This construction typically indicates that the described action took place on a surface, denoted by the applicative indirect object. According to Boeder (2021 § 3.6.17.vi), the superessive applicative "is connected with a specific relationship between the subject/direct object and the indirect object: a part-whole relationship . . . , a close

attachment . . ., a continuous physical or emotional pressure on sth/sb . . ., or a nuisance". With respect to (13) below, Rostovtsev-Popiel (2015) specified that the choice of the superessive construction, rather than the basic construction with a postpositional object, implies a degree of prominence or foregrounding of the site of contact: "It is more or less obvious that the horns are to be added in this case on top of the heads of the people painted on the pictures, not on their sides, shoulders etc."

(12) Old Georgian

ps-am-s 'urinates' > Ø-*a-ps-am-s* 'urinates **on sthg.**'

mo-v-sp'-o *ierobuam-is-i* *romel-i* Ø-*a-ps-m-i-d-e-s*

PVB-S1-destroy-OPT J.-GEN-NOM which-NOM O3-PRV-piss-SM-EXT-IMPF-OPT-S3SG

k'edel-sa

wall-DAT

'I will destroy him of Jeroboam, that pisses **against the wall.**' (III Kings 14:10)

(13) Georgian

xat'av-s 'paints/draws sthg.' > Ø-*a-xat'av-s* 'paints/draws sthg. **on sthg.**'

bavšv-eb-ma ***p'ort'ret'-eb-s*** *rk-eb-i* *mi-Ø-a-xat'-es*

child-PL-ERG portrait-PL-DAT horn-PL-NOM PVB-O3-PRV-paint-AOR.S3PL

'The children drew horns **on the portraits.**' (Rostovtsev-Popiel 2015)

(14) Mingrelian

č'k'ad-ən-s 'hammers sthg.' > Ø-*o-č'k'ad-an-s* 'hammers sthg. **onto sthg.**'

k'učxi-s *ečdoxut-xuti* *putiani* *nal-ep-i*

foot-DAT 25-each *pood* horseshoe-PL-NOM

ku-m-m-o-č'k'ad-i-a

PVB-PVB-O1-PRV-hammer-S1/2-QUOT

(The magic horse said): 'Nail 25 *pood* (= 400 kg!) horseshoes **onto** each of **my** feet.'

(Xubua 1976: 167)

(15) Svan

a. *sgur* 'sits' > *x-a-sgur* 'sits **on sthg.**'

katal *ži* *x-a-sgur* ***ləgr-ol-s***

chicken:NOM up O3-PRV-sit egg-PL-DAT

'The hen is sitting **on the eggs.**' (TK 575)

b. *bəḍ-n-i* 'is poured, [liquid] falls' > *x-a-bəḍ-n-i* 'is poured, falls **on sthg.**'

mananay *bal-ar-s* *x-a-bəḍ-n-i*

dew:NOM leaf-PL-DAT O3-PRV-pour-INTR-SM

'Dew falls **on the leaves.**' (TK 139)

As regards present-day usage with new verbs, the superessive is less frequent, but can occur when the context calls for it:

(16) Georgian

a-st'ep'ler-eb-s 'staples sthg.' > *Ø-a-st'ep'ler-eb-s* 'staples sthg. **to sthg.**'
dana-m q'ur-is bibilo-ti mi-Ø-a-st'ep'ler-a k'edel-s
 knife-ERG ear-GEN lobe-INST PVB-O3-PRV-staple-AOR.S3SG wall-DAT
čven-i temo
 our-NOM T.[NOM]
 'The knife stapled our Temo **to the wall** by his ear-lobe.'

In Svan, the superessive applicatives formed from ablauting intransitive verbs have the PRV *e-* rather than *a-*, as in the other Kartvelian languages (Table 6). This is most likely an innovation in Svan, although its cause remains unclear (Topuria 1967: 49–50; Tuite 2021):

Table 6: Svan superessive applicatives: paired root intransitives in *e-* and transitives in *a-*.

Ablauting intransitive with PRV <i>e-</i>	Transitive with PRV <i>a-</i> (superessive applicative)
<i>x-e-šgb-en-i</i> 'slips off from sthg.'	<i>x-a-šgb-e</i> 'tears sthg. from sb./sthg.'
<i>x-e-t'q'wp-en-i</i> '(skin) comes off from sb./sthg.'	<i>x-a-t'q'wp-e</i> 'tears sthg. (skin, body part) off from sb./sthg.'
<i>x-e-q'wl-en-i</i> 'departs from sb./sthg.'	<i>x-a-q'wl-e</i> 'separates sthg. from sb./sthg.'

Unlike the benefactive applicative, the superessive can be marked by morphological changes other than the addition of a PRV. In Georgian, Mingrelian and Laz, the formation of the superessive applicative of many transitive verbs is accompanied by a change of the series marker (SM, slot 6), a morpheme which occurs in the present-series stem of most verbs. The Mingrelian verb in (14) above illustrates this phenomenon, as does its Georgian cognate (Table 7). The preverb is also different in many superessive verbs. The preverb *mi-* is especially common in Georgian superessives, as in (13) and (16).

Table 7: Series marker change in the superessive applicative.

basic transitive (SM *-aw-)	superessive (PRV *a- + SM *-ew-)
G. <i>č'ed-(av)-s</i> 'forges, hammers sthg.'	G. <i>a-č'ed-eb-s</i> 'forges, nails sthg. <u>onto sthg.</u> '
M. <i>č'k'ad-an-s</i>	M. <i>a-č'k'ad-an-s</i>
G. <i>par-av-s</i> 'covers'	G. <i>a-par-eb-s</i> 'covers sb./sthg. <u>with sthg.</u> '
M. <i>por-un-s</i>	M. <i>a-por-an-s</i>

2.3.2 *Applicativa tantum* with lexically-specified superessive markers

As was the case with the benefactive applicative, there are verbs of different types with the PRV *a- which, at least from a synchronic standpoint, cannot be considered the output of applicativization.

(a) Primary statives with lexically-specified PRV *a-. Alongside the primary statives which have the form of benefactive applicatives (§ 2.2.1 above), there are a small number of primary statives with the PR *a-. Here are some examples with cognate roots in two or more Kartvelian languages (Table 8):

Table 8: Primary stative verbs in *a-.

	Georgian	Mingrelian	Svan
'I lack sthg.'	<i>m-a-k'l-i-a</i>	<i>m-o-rk'-u-n</i>	<i>m-a-k'l-i</i>
'I want sthg.'	—	<i>m-o-k'-on</i>	<i>m-a-k'u</i>

(b) Trivalent transitive verbs with lexically-specified PRV *a-. Lacroix (2009: 463, 525) identified several trivalent transitive verbs in Laz with basic forms in the superessive, such as *dolo-Ø-o-kun-am-s* 'puts sthg. (clothes) on sb.'; and *mo-Ø-o-k'id-am-s* 'hangs sthg. on sthg.'. Georgian has many superessive *applicativa tantum*, most of which have meanings implying transfer, e.g. *a-dzl-ev-s* 'gives sthg. to sb.', *a-c'vd-i-s* 'hands/passes sthg. to sb.', *a-bar-eb-s* 'entrusts sb./sthg. to sb.', *a-dar-eb-s* 'compares sb./sthg. to sb./sthg.'.

(c) Bivalent transitive verbs with lexically-specified PRV *a-, but no indirect object. An archaic class of bivalent transitive verbs, many of them with nonsyllabic roots, take the PRV *a- in their basic "neutral version" form (Shanidze 1953/1980 § 458). Primary *a-transitives cluster around the meanings of (i) building, setting up; (ii) touching; (iii) bringing into contact (e.g., flame to a candle, a brush dipped in paint), which makes it likely that the *a- prefix in these verbs is cognate with the superessive applicative marker. Here are some verbs of this type with cognate roots in Georgian and Mingrelian (Table 9):

Table 9: Cognate primary *a-transitives in Georgian and Mingrelian.

	Georgian	Mingrelian
*a-g-ew- 'builds'	<i>a-g-eb-s</i>	<i>o-g-an-s</i>
*a-gz-ew- 'lights, incites'	<i>a-gz(n)-eb-s</i>	<i>o-rz-an-s</i>
*a-c'(w)-ew- 'dips'	<i>a-c'-eb-s</i>	<i>u-c'u-an-s</i>
*a-x-ew- 'touches'	<i>a-x-eb-s</i>	<i>o-x-u(n)</i> 'concerns'

2.3.3 The PRV *a- and transitivity

The most productive use of the prefix *a- in the Kartvelian languages would appear at first to have nothing to do with superessive meaning. Along with certain suffixes, the PRV *a- is a component of derived transitives and causatives. The *a-prefixed derivatives of monovalent verbs, nouns and other parts of speech are bivalent transitives

without indirect objects, such as these Georgian examples: *a-c'ux-eb-s* 'bothers, causes to worry' < *c'ux-s* 'is worried'; *a-lamaz-eb-s* 'beautifies' < *lamaz-* 'beautiful'; *a-ortkl-eb-s* 'makes evaporate' < *ortkl-* 'steam'. Those derived from transitives are causatives with an indirect object denoting a second agent or instigator: *a-c'er-in-eb-s* 'causes to write' < *c'er-s* 'writes'; *a-č'm-ev-s* 'feeds' < *č'am-s* 'eats' (G. Mach'avariani 1988; M. Mach'avariani 1987: 87–115). The possibility of a deeper diachronic link between these two functions of the PRV *a—supressive and transitivity—will be discussed below (§ 5).

2.4 Applicatives in the Series III tenses

The morphological and syntactic distinction between the applicative and basic constructions for both types of applicatives presented above is maintained in all tenses except those of Series III (Shanidze 1953/1980 §§ 403, 410, 435). In all Kartvelian languages, transitive verbs, as was mentioned in § 1, undergo “inversion” in the present-perfect and other Series III tenses, that is, the subject is marked like the indirect object of a benefactive applicative, as far as case and agreement are concerned. One consequence of inversion is the neutralization of the morphological and syntactic signs of applicativization, and in fact of all four types of version identified in § 2.1 above. The applicative indirect objects and their associated PRVs are replaced by postpositional phrases which do not agree with the verb (Table 10):

Table 10: Basic and applicative transitive verbs in Series I and Series III.

	Series I (present)	Series III (present-perfect)
Basic	<i>v-t'ex</i> 'I break sthg.'	<i>mo-m-i-t'ex-av-s</i> 'I have broken sthg.'
Benefactive APPL	<i>v-Ø-u-t'ex</i> 'I break sthg. for sb. '	<i>mo-m-i-t'ex-av-s mis-tvis</i> [3SG:GEN-for]
Superessive APPL	<i>v-Ø-a-t'ex</i> 'I break sthg. on sthg. '	<i>mo-m-i-t'ex-av-s mas-ze</i> [3SG:DAT-on]
Subjective version	<i>v-i-t'ex</i> 'I break sthg. for myself '	<i>mo-m-i-t'ex-av-s čem-tvis</i> [1SG:GEN-for]
Unmarked version	<i>v-s-t'ex</i> 'I break sb.'s sthg.'	<i>mo-m-i-t'ex-av-s mis-tvis</i> [3SG:GEN-for]

In morphosyntactic terms, the present perfect of a transitive verb such as G *c'er-*, M *č'ar-*, S *ir-* 'write' is a bivalent resultative-passive, with an indirect object referring to the agent. The verb forms G *m-i-c'er-i-a*, M *m-i-č'ar-u-n*, S *mīra* < *m-i-ir-a* could, according to the context, be interpreted as either benefactive applicatives of stative verbs ('it is written for me, in my (e.g. book), etc.'), or as present perfects of a transitive verb ('I have written it'). As for applicative intransitive verbs, they too undergo neutralization in Series III (Shanidze 1953/1980 § 410). For example, both the benefactive *Ø-u-t'q'd-eb-a* 'sthg. breaks for/on sb.', and superessive *Ø-a-t'q'd-eb-a* 'sthg. breaks on/off from sthg.', have the same present-perfect *mo-s-t'q'd-om-i-a*.

3 Stacking/combination of voice operations

In the Kartvelian languages, verbs which have undergone other types of valence-altering operations, such as intransitivization and causative formation, can subsequently be applicativized. It is also the case that certain types of applicative verbs can undergo a second applicativization.

3.1 The PRV *e-

So far, nothing has been said concerning the fourth of the PRVs in Table 3, *e-. The primary function of this vowel is to form the bivalent counterparts of intransitives which have the PRV *i- in their basic forms, in order “to relate the action/event/state to a new participant in a way that the latter becomes either directly or indirectly involved” (Gérardin and Rostovtsev-Popiel 2016). The resulting verbs typically govern a theme in the NOM case and an indirect object, although the latter often has many of the syntactic privileges of a grammatical subject. In terms of their relation to basic forms, three subtypes can be distinguished: intransitivized applicatives, applicativized intransitives, and primary *e- verbs.

3.1.1 Intransitives formed from applicativized transitives

These are most commonly superessive applicatives and quite frequent in the Old Georgian corpus, e.g.

(17) Old Georgian

mi-Ø-a-axl-eb-s ‘brings sb./sthg. near to sb./sthg.’ > *mi-Ø-e-axl-eb-i-s* ‘approaches, nears **sb./sthg.**’

da mi-Ø-e-axl-a iak’ob isak’s

and PVB-O3-PRV-near-AOR.S3SG J.[NOM] I.-DAT

‘And Jacob went near **to Isaac.**’ (Gen 27: 22)

(18) Svan

x-o-cwm-i ‘smears sthg. on/for sb./sthg.’ > *x-e-cwm-i* ‘sthg. is smeared **on sb./sthg.**’

äpicer-s ulmaš-är-s ži-ad-x-e-com-ën-a² nacmun

officer-DAT moustache-PL-DAT PVB-PVB-O3-PRV-smear-PASS-AOR grease:NOM

‘Grease was smeared **on the officer’s moustache.**’ (TK 234)

² The surface form is *žäxcomän*.

3.1.2 Applicatives of *i-intransitives

Another common use of the PRV *e- is to form applicatives from intransitives with the PRV *i-. The distinction between benefactive and superessive applicatives is neutralized in this case. Here are two examples formed from passive verbs:

- (19) Old Georgian

še-i-cvl-eb-i-s ‘is changed’ > *še-Ø-e-cvl-eb-i-s* ‘**sb.**’s sthg. is changed; sthg. is changed **for sb.**’

q’ovel-i *ese* ... *codvil-ta* *še-Ø-e-cval-o-s* *borot’-sa* *šina*
all-NOM this sinner-OBL.PL PVB-O3-PRV-change-OPT-S3SG evil-DAT in
‘All these things ... are turned into evil **for sinners.**’ (Ecclesiasticus 39:27)

- (20) Svan

i-dgär-i ‘dies’ > *x-e-dgär-i* ‘**sb.**’s (relative) dies; sb. dies (accidentally) **by sb.**’s action’
dina-s *diutwra* *ad-x-e-dag-an*³
girl-DAT stepmother:NOM PVB-O3-PRV-die-AOR
‘**The girl’s** stepmother died.’ (TK 193)

- (21) Laz

i-čod-e-n ‘ends, is finished’ > *Ø-a-čod-e-n* ‘**sb.**’s sthg. is finished, sthg. ends **for sb.**’
bič’i-s *xorci* *d-Ø-a-čod-u*
boy-DAT meat:NOM PVB-O3-PRV-end-AOR.S3SG
‘The meat ended **for the boy** (i.e. the boy had no more meat).’ (Lacroix 2007)

Primary medial verbs in *i- can also form applicatives in *e-. This formation is especially common in Svan, less so in Old Georgian, Mingrelian and Laz (Lacroix 2007).

- (22) Old Georgian

i-glov-s ‘mourns’ > *Ø-e-glov-s* ‘mourns **sb.**’
da *Ø-e-glov-d-a* *mas* *egwip’t’e* *sameoc-da-at* *dye*
and O3-PRV-mourn-IMPF-S3SG 3SG:DAT Egypt:NOM 60-and-10 day
‘And Egypt mourned **him** seventy days.’ (Genesis 50:3)

- (23) Svan

i-mzir ‘prays’ > *x-e-mzir* ‘prays **for sb.**’
megza *x-e-mzir-x* *naywžurgezl-äš* *lipširi-s*
family:DAT O3-PRV-pray-PL male-child-GEN multiply-DAT
‘They prayed for an abundance of sons **for the family.**’ (TK 451)

³ The surface form is *atdagan*.

3.1.3 Primary verbs in *e-

Each of the Kartvelian languages has a sizeable, and productive, set of intransitive verbs in *e- derived from noun, adjective and verb stems. Shanidze (1953: 299–301) groups these into verbs of possibility (*šesadzlebloba*), assessment (*mičneva*) and mood (*guneba*). Here are examples of each kind:

- (24) Laz: possibility

gam-i-l-e-n ‘goes out’ > *gama-Ø-a-l-e-n* ‘**sb./sthg. can** go out’

gama-g-a-l-e-n

PVB-O2-PRV-go-SM-S3SG

‘**You can** go out, **are allowed** to go out.’ (Lacroix 2007)

- (25) Georgian: assessment

pot’ošop’-i ‘Photoshop’ > *Ø-e-pot’ošop’-eb-a* ‘(photo) seems altered by software **to sb.**’

cot’a m-e-pot’ošop’-eb-a es surat-i

little O1-PRV-photoshop-SM-S3SG this picture-NOM

‘**I have a slight impression** that this picture was photoshopped.’

- (26) Georgian: mood

myer-i-s ‘sings’ > *Ø-e-myer-eb-a* ‘**sb. feels like** singing’

m-e-myer-eb-a da v-i-myer-i

O1-PRV-sing-SM-S3SG and S1-PRV-sing-SM

‘**I feel like** singing, and I will sing.’ (title of poem by Vazha-Pshavela, 1903)

3.2 Applicatives of causatives

In principle, Kartvelian causatives should have the same range of applicatives as ordinary transitive verbs. For bivalent causatives formed from intransitive verbs, this is more or less the case. As for trivalent causatives of transitive verbs, Makharoblidze (2012: 155–156) provides conjugation tables for quadrivalent benefactive applicatives such as *v-u-šen-eb-in-eb* ‘I am making him/her/it build it (for him/her/it)’. In practice, such verbs are uncommon. Shanidze (1980 § 428–429) provides some examples from Georgian literary sources:

(27) Georgian

c'er-s 'writes sthg.' > *a-c'er-in-eb-s* 'makes sb. write sthg.' > ***m-i-c'er-in-eb-s*** 'makes sb. write sthg. **for me**'

kavtarisvil-ma sigel-i mikel teodat'e-s švil-s

K.-ERG charter-NOM M. T.-GEN son-DAT

da-m-i-c'er-in-a

PVB-O1-PRV-write-CAUS-AOR.S3SG

'Kavtarishvili had Mikel, son of Theodate, write a charter **for me**.' (Iese Osesshvili c. 1770)

3.3 Double applicatives

In addition to being applied to verbs that have undergone valence change through passivization or causativization, applicatives can also be layered on verbs that are themselves the product of applicativization. Double applicatives are not common, especially those that result in quadrivalent verbs. In general, they consist of a benefactive applicative superimposed on a superessive applicative (Shanidze 1953/1980 §§ 402, 411, 416, 442; Harris 1981: 99–100, 286; Singer 2003; Lomashvili 2005: 205–207), as in this example:

(28) Georgian

c'eb-av-s 'glues sthg.' > *Ø-a-c'eb-eb-s* 'glues sthg. to sthg.' > ***m-i-c'eb-eb-s*** 'glues sthg. to **my** sthg.'

viyaca-m ertmanet-s c'ebo-ti mi-m-i-c'eb-a

someone-ERG each.other-DAT glue-INST PVB-O1-PRV-glue-AOR.S3SG

tit-eb-i

finger-PL-NOM

'Someone stuck **my** fingers together with glue.' (T. Jangulashvili *Mnatobi* #5, 1986)

In present-day usage, double applicatives with two indirect objects tend to be avoided, with the object of the inner applicative marked by a postposition rather than the bare dative case (Lomashvili 2005: 205–207), e.g.

(29) Georgian

k'er-av-s 'sews sthg.' > *Ø-a-k'er-eb-s* 'sews sthg. onto sthg.' > ***m-i-k'er-eb-s*** 'sews sthg. onto **my** sthg.'

yil-i p'ijak'-ze // (p'ijak'-s) mi-m-i-k'er-a

button-NOM jacket-**on** jacket-DAT PVB-O1-PRV-sew-AOR.S3SG

'She sewed a button **onto** my jacket.'

In principle, verbs that are the product of benefactive applicativization cannot undergo the same operation a second time, but some apparent exceptions have been attested (Singer 2003). The few examples attested in Georgian are applicatives of benefactive *applicativa tantum*, that is basic verbs which contain the functionless or invariant PRV *u- (see § 2.2.2 above). The verb *da-Ø-u-k'rav-s* 'plays sthg. (instrument or piece of music)', which contains a functionless O3 marker, can undergo the addition of a beneficiary argument (Boeder 1968: 120–121):

(30) Georgian

Ø-u-k'r-av-s 'plays sthg.' > **m-i-k'r-av-s** 'plays sthg. **for me**'
 git'ara-ze da-gv-i-k'r-a ramdenime simyera
 guitar-on PVB-O1PL-PRV-play-AOR.S3SG several song:NOM
 'He played **us** several songs on the guitar.'

According to Shanidze (1953/1980 § 414), in earlier times, and in some conservative Georgian dialects, the indirect-object marker of *da-Ø-u-k'rav-s* referred to the instrument played. In this example from the Khevsurian dialect, spoken in the northeastern highlands, the benefactive applicativized form is quadrivalent, with a direct object designating the piece that is performed, an indirect object denoting the instrument, and another indirect object denoting the beneficiary. In this context, the O3 marker in the basic form is functional but invariant, since the referent is necessarily inanimate, thus 3rd person:

(31) Georgian

Ø-u-k'r-av-s 'plays sthg. on sthg.' > **m-i-k'r-av-s** 'plays sthg. on sthg. **for me**'
 pandur-s da-m-i-k'ar-Ø
 pandur-DAT PVB-O1-PRV-play-AOR.S1/2
 'Play the *pandur* [name of instrument] **for me!**' (Shanidze 1953/1980 § 414)

Öztürk (2013, 2016) elicited sentences in the Pazar variety of Laz, which appear to result from two operations of benefactive applicativization, should the basic form of this verb be bivalent (as is Arhavi Laz *o-şku-me* 'sends/releases sb./sthg.'; Lacroix 2009: 437, 445):

(32) Laz

o-şk-u 'sent sb./sthg.' > Ø-u-şk-u 'sent sb./sthg. to sb.' > Ø-u-şk-u 'sent sb./sthg. to sb. **for sb.**'
 Xordza-k Ali-s k'oçi-s bere Ø-u-şk-u.
 woman-ERG A.-DAT man-DAT child:NOM O3-PRV-send-AOR.S3SG
 'The woman sent the child to the man for Ali.'

There are nonetheless semantic constraints: the first applied object must denote a recipient, and the second a beneficiary.

4 Morphological and syntactic lookalikes

As mentioned above (§ 2.1), the Kartvelian subjective version and unmarked (*satanao*) version do not correspond to applicatives as defined in this volume. In the case of subjective version, the morphology undergoes change, by addition of the PRV *i-*, but the surface syntax remains the same, in that no overt argument is added. Unmarked version, by contrast, is characterized by the addition of an indirect object, but without any change to the morphology of the verb (other than the addition of an object marker).

4.1 Subjective version

Alongside its function as the marker of objective version with 1st- and 2nd-person indirect objects, the PRV **i-* also marks subjective version (*sataviso kceva*). The contrast between the basic and subjective version constructions is limited to transitive verbs. The Kartvelian subjective version indicates that the action is performed by the referent of the subject (1) on his/her own body, or clothing, or an object he/she is carrying; or (2) for the subject's own benefit, in some sense (Shanidze 1953/1980 § 396). Although it is sometimes described as the reflexive counterpart of the benefactive applicative (e.g. Bondarenko 2015), the semantic range of the subjective version is wider. Boeder (2021 § 3.6.17 vi) notes that it “occurs with any reflexive indirect object. It neutralizes the opposition between objective version, superessive version and unspecified indirect objecthood [= unmarked version—KT]”. The reflexive applicative construction has the same valence as the basic construction, at least as far as surface structure is concerned (more on this below).

(33) Old Georgian

tes-av-s ‘sows sthg.’ > *i-tes-av-s* ‘sows sthg. **for oneself**’

mk'-i-s ‘mows, reaps sthg.’ > *i-mk'-i-s* ‘mows, reaps sthg. **for oneself**’

Ø-*i-tes-e-t* *ipkl-i* *da* *ek'al-sa* *mo-Ø-i-mk'-i-t*

S2-PRV-SOW-AOR-S1/2PL wheat-NOM and thorn-DAT PVB-S2-PRV-reap-SM-S1/2PL

‘You sowed (**for yourselves**) wheat but will reap (**for yourselves**) thorns.’

(Jeremiah 12:13)

(34) Svan

a-ti ‘mows sthg.’ > *i-ti* ‘mows sthg. **for oneself**, in **one's own** fields’

k'wecen-s *našt'ak-wš* *xw-i-ti-d*

wheat-DAT sickle-INST S1EXCL-PRV-mow-S1/2PL

‘We mow (**for ourselves**) wheat with sickles.’ (TK 275)

(35) Mingrelian

k'vat-un-s 'cuts sthg.' > *i-k'vat-un-s* 'cuts **one's own** sthg. (e.g. body part)'

k'it-i *gi-i-k'vat-u* *xam-it*

finger-NOM PVB-PRV-cut-AOR.S3SG knife-INST

'He cut **his (own)** finger with a knife.'

In his grammar of Laz, Chikobava (1936/2008: 119–121) stated that the use of the subjective version in that language was limited to situations where the referent of the grammatical subject acted on his/her own body; in other words, the Laz subjective version could be described more accurately as the reflexive counterpart of superessive or unmarked version. Whereas Georgian *i-c'er-s* usually means 'writes (down) for oneself' (e.g. takes notes, records something), its Laz cognate *i-č'ar-up-s*, according to Chikobava's informants, "would be used if one started to write on one's own body, and who would ever do that?" (Chikobava 1936/2008: 120). This restriction on the semantic range of the subjective version may not (or no longer) apply to the present-day dialects of Laz. While most of Lacroix's examples of verbs in the subjective version, collected from contemporary Laz speakers in Turkey, are consistent with Chikobava's observation, he also recorded instances with benefactive or possessive meaning, e.g.

(36) Laz

ma oxoi *b-i-k'od-um*

1SG house:NOM S1-PRV-build-SM

'I build a house **for myself**.' (Lacroix 2012)

As was noted previously for the benefactive applicative, the subjective version is commonly used in all Kartvelian languages, and readily appears with newly-minted verbs:

(37) Georgian

a-pot'ošop'-eb-s 'uses software to modify (image)' > *i-pot'ošop'-eb-s* 'uses software to modify **one's own** (image)'

sax-is *k'an-s* *i-pot'ošop'-eb-s*

face-GEN skin-DAT PRV-photoshop-SM-PRS.S3SG

'She photoshops **her (own)** facial skin.'

Unlike the other constructions presented here, the subjective version in *i- does not add an indirect object to the surface structure of the clause. This has led to an interesting divergence of opinion concerning how to classify this construction. Beginning with Shanidze, most linguists have grouped it in the same category as the benefactive applicative, either under the heading of "version", or as a type of applicative ("reflexive applicative", according to Lomashvili 2010: 191ff and Bondarenko 2015). With respect

to valence change, Boeder (1968) noted that the subjective version construction can be paraphrased with a benefactive or another type of applicative and an explicit reflexive indirect object, e.g.

- (38) Georgian: reflexive applicative (bivalent) = benefactive applicative (trivalent)
- | | | | | | | |
|----------------------------------|---------------|---|--|---------------|--------------|--------------|
| <i>v-i-k'rep</i> | <i>vašl-s</i> | = | <i>v-u-k'rep</i> | <i>vašl-s</i> | čem-s | tav-s |
| S1-PRV-pick | apple-DAT | | S1-PRV-pick | apple-DAT | my-DAT | head-DAT |
| 'I pick myself an apple.' | | | 'I pick an apple for my self (lit. my head).' | | | |

On this basis, the Kartvelian subjective version / reflexive applicative has been analyzed as a construction with an implicit indirect object ("*impliziten i-Dativ*") that is coreferential with the grammatical subject (see also Harris's "Coreferential Version Object Deletion", 1981: 95–99; Harris 1991: 46).

Shanidze also noted significant semantic overlap between the subjective version and certain uses of the middle voice in Indo-European languages such as Greek and Sanskrit (1953/1980 § 417; see also Schmidt 1965). Lacroix (2009: 456–483; 2012) takes this observation a step further, and classifies the PRV *i- as the morphological marker of middle voice in Kartvelian. He therefore separates subjective-version transitives from the applicatives, and groups them with the large class of Kartvelian intransitive verbs also marked by the PRV *i-, which cover the semantic domains of: passive (G *i-c'er-eb-a* 'is written'), potential (*i-č'm-eba* 'can be eaten'), anticausative (*i-c'v-eb-a* 'burns (INTR)'), autocausative (*i-ndzr-ev-a* 'moves (INTR)'), and antipassive (*i-yeč'-eb-a* '(person or animal) chews in a leisurely or annoying manner'; Tuite 2002). Taken together, subjective-version transitives and *i-prefixed intransitives cover most of the meanings associated by Kemmer (1993) with the middle voice on a cross-linguistic basis.

4.2 Unmarked version

It was mentioned at the outset of this chapter that Shanidze, in his initial definition of the category of version, included a type he labelled *satanao* 'for taking along', which specified an indirect object but without the addition of a PRV to the verb morphology. Such verbs occur in Laz and Mingrelian as well as Georgian, but not in Svan. In the Svan cognates of verbs with unmarked version, the PRV *a-* or *o-/i-* appears after the indirect-object marker, e.g. G *m-q'id-i-s*, S *măq'di* < *m-a-q'id-i* 'sells sthg. to me'; G *m-c'er-s*, M *m-č'ar-un-s*, S *mīyri* < *m-i-ir-i* 'writes (and sends) sthg. to me'. In my view, there are grounds for hypothesizing that Svan lost a distinction between indirect objects with and without PRVs, which has been retained in its sister languages (Tuite 2021).

Turning to Georgian, Laz and Mingrelian, the verbs in unmarked version can be divided into two groups. On the one side are those for which unmarked version represents their basic form, that is, fundamentally trivalent transitives (e.g. G *mo-m-c-em-s*

‘will give sthg. to me’) and bivalent intransitives (e.g. G *m-dzul-s* ‘I hate sb./sthg.’). Such verbs do not have a more basic form which lacks an indirect object, i.e. there are no such verbs as †*mo-c-em-s* ‘will give sthg.’ or †*dzul-s* ‘sb./sthg. is hateful’. The second, larger, group comprises verbs in unmarked version for which there exist basic forms lacking an indirect object. The principal semantic fields associated with verbs taking PRV-less indirect objects are: (i) transfer, transmission or taking, with the indirect object denoting addressees or recipients (Jorbenadze 1983: 219–226); and (ii) action implying body contact, often violent, with the indirect object denoting the participant intimately effected by the action. Here are some examples from Old Georgian and Mingrelian:

(39) Old Georgian

k'wet-s ‘cuts sthg.’ > *m-k'wet-s* ‘cuts **my** sthg. (esp. body part)’

mo-g-k'wet-o-s *parao* *tav-i* *šeni* *šen-gan*
 PVB-O2-cut-OPT-S3SG pharaoh[ERG] head-NOM 2SG.POSS[NOM] 2SG-from
 ‘Pharaoh will cut off **your** head from you.’ (Gen 40: 19)

(40) Mingrelian

č'ar-un-s ‘writes sthg.’ > *m-č'ar-un-s* ‘writes (and sends) sthg. **to me**’

minje-s *me-Ø-č'ar-a* *dzyabi-k*
 owner-DAT PVB-O3-write-AOR.S3SG girl-ERG
 ‘The girl wrote **to the owner**.’ (Xubua 1976: 74)

According to Shanidze (1953/1980 § 440) and Deeters (1930: 79–80), the semantic range of PRV-less indirect objects overlaps that of superessive objects marked by the PRV *a-, as attested by parallel Old Georgian translations of the same Biblical passage (e.g., *da=h-k'wet-a* /*da=Ø-a-k'wet-a* ‘threw him down [to the ground]’, Mark 9: 20). Nonetheless, comparison of a corpus of verbs which allow both superessive and unmarked indirect objects reveals consistent semantic differences between the two, especially as regards the animacy of the applied object. The unmarked version has a strong association with animate arguments (possessors of body parts, experiencers), whereas the superessive applicative covers a broader semantic range, including verbs denoting physical movement or removal from an inanimate surface (Table 11).

Table 11: Contrasting superessive and unmarked version in Georgian.

Root	Superessive applicative	Unmarked version
<i>glej/glij-</i> ‘tear’	<i>mo=Ø-g-glij-a</i> ‘tore sthg. (e.g. knob) <u>off</u> sthg.’	<i>mo=h-glij-a</i> ‘tore sthg. <u>off sb.’s</u> body (e.g. hat off head, mask off face)’
<i>t'q'd-</i> ‘break (INTR)’	<i>mo=Ø-a-t'q'd-a</i> ‘sthg. (e.g. handle) broke <u>off</u> sthg.’	<i>mo=s-t'q'd-a</i> ‘ <u>sb.</u> ’s sthg. (e.g. fingernail, arm) broke’

When used with some verbs of transfer or communication, the unmarked version “can be more or less synonymous” with the benefactive; e.g. G *m-q'ep-s* / *m-i-q'ep-s* ‘it barks at me’ (Boeder 2021 § 3.6.17.ix).

Although somewhat less common than the other version types, an Internet search has yielded at least one newly-created Georgian verb which allows the unmarked version:

(41) Georgian

p'ost'-av-s ‘posts sthg. (on social media)’ > *m-p'ost'-av-s* ‘posts sthg. **to me**’

me ro uk've mo-g-p'ost'-e, k'ide mo-g-p'ost'-o?

1SG that already PVB-O2-post-AOR.1/2 again PVB-O2-post-OPT

‘Since I already posted it **to you**, do I have to post it **to you** again?’

5 The origin of the Kartvelian applicative markers

In his crosslinguistic survey of applicatives, Peterson (2007: 123) identified two primary sources of applicative morphology: adpositions and serial verbs. Other sources, such as body-part nouns, have been proposed for the applicative morphemes of certain languages, but Peterson (2007: 140–141) considers the arguments unconvincing. The PRVs which mark Kartvelian applicatives, however, have no evident link to any such lexical category. The most promising path toward elucidating the origin of the preradical vowels was suggested initially by Topuria (1947) and Vogt (1974), who pointed to evidence that the PRVs were not limited to finite verbs in Proto-Kartvelian. The prefixes *a- and *i- occur in participles and a small number of nouns, as in the following examples from Georgian (Table 12):

Table 12: PRVs in verbs, participles and nouns (Georgian)

	*a- (root -xl- ‘touch’)	*i- (root -s(v)r- ‘shoot’)
Finite verbs (“version”)	<i>a-xl-eb-s</i> ‘touches’	<i>i-svr-i-s</i> ‘shoots’
Participle in s-	<i>s-a-xl-</i> ‘house’ (‘site of closeness’)	OG <i>s-i-sr-a</i> ‘shooting’
Nouns (frozen prefix)	<i>a-xl-a-</i> ‘close, near’	<i>i-sar-</i> ‘arrow’ (‘it is shot’)

Of special interest for reconstructing the original functions of the PRVs is a small, archaic class of vowel-initial nouns based on verbal roots (Fähnrich and Sarjveladze 2007: 27–28, 210). The initial vowels in these nouns appear to be frozen PRVs, a hypothesis which draws support from their meanings. In the *a-prefixed nouns, one detects a semantics of space and attachment (*a-xl-o* ‘near’ < ‘touching sb./sthg.’), corresponding to the core uses of the superessive applicative marker; whereas the *i-prefixed nouns, when compared to their verbal roots, have middle-voice or passive meaning (G *i-sar-*, L *i-sij-* ‘arrow’ < ‘ce qui est lancé’; see Vogt 1974 and Klimov 1964: 102) (Table 13).

Table 13: Georgian nouns with frozen PRVs

Form	Noun	Verb
*a-		
a-√-Ø	a-lag- ‘place, position’ (‘is arranged on it’)	a-lag-eb-s ‘arranges’
a-√-il-	a-dg-il- ‘place’ (‘is put on it’)	a-dg-am-s ‘puts on’
a-√-o	a-s-o ‘(body) limb, member; letter’ (‘is affixed to it’)	a-sv-am-s ‘sets on, affixes’
*i-		
i-√-Ø	i-gav- ‘parable, fable, riddle’ (‘it resembles’)	h-gav-s ‘resembles’
	i-k’ank’el- ‘zigzag line’ (‘it shivers’)	k’ank’al-eb-s ‘shivers’
i-√-al-	i-dum-al- ‘secret, unspoken’ (‘is kept silent’)	dum-s ‘is silent’
	i-pk-l- ‘autumn-sown wheat’ (‘is ground [into flour]’)	pkv-av-s ‘grinds’

In a recent essay on the origins of the Kartvelian category of version, I argue that it emerged from an older distinction between the primary PRVs *a- and *i-, which was correlated with the TRAJECTORY or ORIENTATION of the action denoted by the verb (Tuite 2021). The PRV *a- was primarily associated with locative or superessive meaning—situating an event on a surface or target—from which emerged its link to transitivity, in the sense of action directed toward a goal (§ 2.3.3). Jorbenadze (1983: 115–122) characterized the core meaning of the PRV *i- as “reflexivity” or “turning back” (*uk’uk-cevitoba*), as reflected in the clusters of meanings linked to this prefix: (i) attributes associated with the middle voice, such as intransitivity, reflexivity, passive/antipassive; (ii) “introversion” as understood by M. Mach’araviani (1987), that is, orientation toward either the grammatical subject (subjective version) or a speech-act participant (1st or 2nd person objects of benefactive applicatives). The PRVs thus indicate the TRAJECTORY of the denoted activity vis-à-vis the referent of the subject, and secondarily, the speech-act participants. The primary contrast of (intro-/extra-vert) trajectory also has implications for the animacy of the participant toward which the trajectory is oriented, and the valence of the associated verb, as summarized below (Table 14):

Table 14: Contrasting characteristics of PRVs *a- and *i-.

	*a-	*i-
Trajectory	subject → affected surface (superessive, transitive; EXTRAVERSION)	subject ↗ (orientation toward grammatical subject, speech context; INTROVERSION)
Animacy	inanimate	human
Valence	adds argument (superessive, causative)	replaces overt actant with implicit reflexive

The secondary PRVs *u- and *e- can be considered specialized alternants of *i- in particular contexts. The PRV *e- marks the addition of a dative-case argument to an *i-medial or *i-intransitive verb: *i-cin-i-s* ‘laughs’ > *e-cin-i-s* ‘laughs at her/him/them’. The PRV *u-, which signals a 3rd-person non-reflexive argument for benefactive applicative verbs,

could be characterized as “indexically creative” in Silverstein’s (1976) sense. Whereas *i- is linked to the highly-presupposable referents associated with the speech context (speaker and addressee), and the content of the utterance (the grammatical subject), the prefix *u- entails the addition of a new argument outside of this circle.

6 Conclusion

Two types of applicatives can be ascribed to the Kartvelian languages: benefactive and superessive. Here is a summary of their principal characteristics:

Morphology

The morphological marker associated with both types of applicatives is a preradical vowel (PRV), which intervenes between the person prefixes and the verb root. In the case of benefactive applicatives, the prefix is *i- with a 1st- or 2nd-person indirect object, and *u- in the 3rd person. This alternation cannot be explained on phonological grounds, and might reflect the semantic feature of introversion (§ 5). Applicativized verbs have the same inflectional paradigms as their base counterparts, but the distinction between the basic construction and the two types of applicatives is neutralized in the Series III tenses (present-perfect, pluperfect, etc.; § 2.4).

Syntax

- Both types of applicatives are “D-applicatives”, which add an indirect object to the construction. Kartvelian applicatives can combine with other valence-altering transformations, such as causative and intransitivization. Double applicatives are possible under certain restrictions.
- The superessive, unlike the benefactive applicative, can bring about morphological changes other than the addition of a PRV (§ 2.3.1). It is also less strict with respect to the marking of applied objects, which not infrequently appear as objects of postpositions rather than indirect objects in the dative case (Boeder 1968: 112; Aronson 1982: 75; Kojima 2012: 230). This is especially common in verbs that would otherwise have two indirect objects (§ 3.3).

Semantics

The Kartvelian applicative types have semantic associations, which are reflected in the names assigned to them: benefactive and superessive. Although applicative constructions can be paraphrased by basic constructions with postpositional phrases—and indeed, this becomes a necessity in the Series III tenses, for which distinctions of applicativity are neutralized (§ 2.4)—subtle contrasts between applicative and basic constructions have been noted (§ 2.4).

Lookalikes

Kartvelian subjective version has the morphological attributes of an applicative, in that it is signalled by the addition of a PRV, but it has the same surface valence as the basic construction. This has led some linguists to analyze it as a type of applicative with an implicit reflexive indirect object, whereas others compare it to the middle voice (§ 4.1). Unmarked or *satanao* version, by contrast, has the syntactic attributes of an applicative, but not the morphology, since it is not associated with a PRV or any other marker (§ 4.2). Valency-neutral lexically-specified PRVs occur in particular classes of verbs, which were presented above. Of particular relevance for understanding the evolution of applicative morphology in Kartvelian are transitive verbs with basic forms containing the PRVs *a- and *i-, as well as a handful of vowel-initial nouns with what appear to be frozen PRVs, discussed in § 5.

Abbreviations

ADD	additive
AOR	aorist
CAUS	causative
DAT	dative
ERG	ergative
EXCL	exclusive
EXT	extension
GEN	genitive
IMPF	imperfect
INCL	inclusive
INDEVID	indirect evidential
INST	instrumental
INTR	intransitive
NOM	nominative
O	object
OBL	oblique
OPT	optative
PASS	passive
PERF	perfect
PL	plural
POSS	possessive
PRS	present
PRV	preradical vowel
PST	past
PVB	preverb
QUOT	quotative
S	subject
SG	singular
SM	series marker
TK	Topuria & Kaldani (2000)

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27 Applicative derivations in Kiranti

Abstract: Among the languages of the Trans-Himalayan family, the Kiranti subgroup stands out in terms of the richness of its applicative morphology. Most Kiranti languages have both an inherited valency-increasing *-t suffix with applicative and causative functions (with cognates in the rest of the family) and innovated bipartite verb constructions with one or several applicative auxiliaries. This chapter illustrates the general properties of applicative constructions in Kiranti. It shows that both *-t applicatives and bipartite verbs involve a specific set of redundant stem alternations in some languages, in particular Khaling, and that one language, Hayu, has developed a specific applicative conjugation class. The applied object is generally indexed as the direct object of a monotransitive verb, but it can receive the dative marker in some languages, like Thulung. All Kiranti languages have at least one benefactive applicative construction, but we also find applied objects with the semantic roles of patient, source, stimulus and instrument.

1 Introduction

AC's have been reported in at least eleven of the thirty-odd subgroups of the Trans-Himalayan (or Sino-Tibetan) family.¹ Given the size and typological diversity of the Trans-Himalayan family (Arcodia & Basciano 2020), it is counterproductive to attempt a comprehensive overview of all these subgroups in this chapter, and we restrict our discussion to Kiranti languages, with a focus on Khaling (khal1275), a language spoken by more than 10000 speakers in Solukhumbu, Eastern Nepal.²

The chapter first presents background information on Kiranti languages, and on morphosyntactic constructions relevant to the description of the applicatives, including case marking, person indexation, stem alternation and complex predicates. It then describes the two applicative constructions found in Kiranti languages, the -t suffix and the applicative auxiliaries, which are fused with the verb stem as a bipartite verb in most languages of the subgroup.

Then follows a description of the syntactic constructions where applicative constructions are used, including the effects of this valency-increasing derivation with

1 Branches of Trans-Himalayan where AC's have been described include Gyalrongic (Sun 2006, Jacques 2013, Zhang 2020), Old Chinese (Downer 1959, Jacques 2016), Dulong-Rawang (LaPolla 2000: 304–308), Jinghpo (Peng & Chappell 2011), Kuki-Chin (Peterson 2007), Karbi (Konnerth 2014: 260–261), Tani (Post 2007: 521), Dhimal (King 2009: 198–200), Kham (Watters 2002: 249), in addition to Kiranti.

2 Our Khaling teacher is Dhan Bahadur Rai, coauthor of several publications on the Khaling language, including Jacques et al. (2012, 2016, 2015).

verbs roots of various valencies, the use of applicative with complement clauses, and its combination with other voices and derivations.

The next section comprises an inventory of the semantic roles that the applied object (AppIO) can receive in the various applicative constructions in Khaling and other Kiranti languages.

Finally, the chapter concludes with a brief account of verbal lability, which has applicative-like semantics in some languages.

2 Background information

2.1 Kiranti languages

Kiranti is a subgroup of the Trans-Himalayan family, comprising about 30 languages, spoken in Eastern Nepal and neighbouring Sikkim.

Although the monophyly of the subgroup has been questioned (Gerber & Grollmann 2018), there are potential lexical, phonological and morphological innovations defining Kiranti (Michailovsky 2017, Jacques 2017) and this clade is also supported by Bayesian phylogenies (Sagart et al. 2019).

This section focuses on a number of morphosyntactic features that are needed to discuss applicative constructions in Kiranti languages: case marking, person indexation, stem alternation, and complex predicates (in particular bipartite verbs).

2.2 Case marking

All Kiranti languages mark transitive subjects with an ergative case and use an unmarked absolutive form for intransitive subjects. The ergative also serves to mark instruments. Direct objects are generally in absolutive form as in (1a), but some languages, including Bantawa (bant1281, Doornenbal 2009: 211), Puma (puma1239, Sharma 2014: 293–308) or Thulung (thul1246, Lahaussais 2002: 66–68), mark animate objects with the dative *-lai* borrowed from Nepali (1b).

(1) Bantawa (Doornenbal 2009: 229)

- a. *seluwa-ʔa* *kʰaŋ* *kʰik-mett-u*.
bitter herb-ERG vegetables be.bitter-CAUS-3O
'The herbs made the vegetables bitter.'
- b. *seluwa-ʔa* *o* *ŋa-lai* *kʰikt-u*.
bitter herb-ERG this fish-DAT numb-3O
'The herbs numbed the fish.'

Beneficiaries can be encoded by a benefactive applicative (§5), but also simply by means of a postposition. In Khaling (khal1275) for instance, either *lagi* ‘for’ (borrowed from Nepali) or *dôl* ‘for’ (in higher register) combines with the genitive to mark beneficiaries, both animate and inanimate (2).

(2) Khaling

kʰél brâ:-po dôl duk mɛ
 Khaling language-GEN for suffering do:2SG → 3:N.PST
 ‘He is working hard for the Khaling language.’

The ablative *-laka* is also attested to mark the beneficiary in applicative constructions involving transitive or ditransitive bases (§4.1.3).

2.3 Person indexation

Kiranti languages distinguish singular, plural and dual numbers, and have a robust clusivity contrast. They encode transitivity in their verbal morphology, and transitive verbs can index the person and number of two arguments, with the possible exception of a few varieties which have undergone rapid morphological simplification in recent decades (Borchers 2008).

Ditransitive verbs generally index the recipient as direct object rather than the theme, as illustrated by (3) with the verb *|butt|* ‘give to drink’.

(3) Khaling (Jacques et al. 2015)

?ām-ʔɛ ʔûŋ ku ʔi-bus-ta.
 3SGERG 1SG water 2/INV-give-1SG:PST
 ‘He gave me water to drink.’

In order to describe specific slots in the polypersonal paradigm in a condensed fashion, transitive configurations are presented in the form $X \rightarrow Y$, where X corresponds to the transitive subject and Y to the object. For instance, the person configuration in (3) is 3SG → 1SG; the verb form *ʔi-bus-ta* ‘He gave it to me to drink’ indexes a third singular subject with first singular object.

Kiranti morphology is mainly suffixal, but Puma for instance allows up to three prefixes (Sharma 2014: 135), as shown in (4).

(4) Puma (Sharma 2014: 149)

khokkuci-a ke-lai kha-ni-pa-sont-en
 3PL-ERG 1DU-DAT 1N.SG.O-3S/A-NEG-persuade-NEG:PST
 ‘They did not persuade us.’

Some languages such as Khaling only have a single prefixal slot, which can be filled by a negative prefix, or by the prefix *ʔi-*, which occurs in all forms involving second person as subject or object (except the 1SG → 2) and in the inverse 3 → 1 forms, hence the gloss 2/INV in (3).

There is some interaction between person indexation and tense-aspect-modality (TAM), and in most languages, distinct paradigms have to be posited at least for past, non-past and imperative tenses. The segmentation of forms into affixes and bases is not always trivial, and requires decisions that are sometimes arbitrary (Ackerman et al. 2009). For instance, in the Khaling form *lâ:te* ‘he said it’ (3SG → 3SG.PST of *|lut|* ‘say’), it is unclear whether the *-t-* belongs to the verb stem (*lâ:t-*) or the past tense suffix (*-te*).³

Voice also affects person indexation in Kiranti. Reflexive-middle and applicative-causative forms have special conjugations involving non-predictable morphological alternations, and complete paradigms have to be listed in their entirety.

2.4 Stem alternations

The morphology of Kiranti verbs is not exclusively concatenative, and argument indexation, TAM and voice are not only encoded by affixes, but also by stem alternations, which present considerable variety across the subgroup (Herce 2021).

The partial paradigms from Khaling in Table 3 are representative of the type of stem alternations and affixation used to index person, number, tense and voice in Kiranti.

In the following discussion, verb forms are referred to using abstract root forms from which the paradigms can be derived by a set of regular expressions (see Jacques et al. 2012 and Jacques 2017 on the procedure to identify root forms in Khaling and other languages). These roots, which almost never occur as independent forms, and are not pronounceable as such, are written between vertical bars *|...|*.

2.5 Complex predicates

All Kiranti languages have complex predicates involving lexical verbs followed by closed class of auxiliaries, with various degrees of morphophonological and morpho-syntactic integration. In the following, lexical/main verbs are referred to as *V*₁, and auxiliaries (also called ‘vector verbs’ or ‘aspectualizers’) as *V*₂. The *V*₂’s have various functions, including aspect, associated motion (Jacques et al. 2021), but also causative

³ An anonymous reviewer objected that the past prefix was *-ε*, cognate to the *-a* past suffix found in other Kiranti languages. However, from the point of view of the synchronic analysis, this would amount to positing a suffix *-ε*, in complementary distribution with *-te*, only appearing after verb roots with a *-t* coda.

and applicative. A preliminary discussion of the general morphological properties of complex predicates is necessary before presenting the applicative V_2 's.

In some languages such as Limbu, the complex predicates are serial verb constructions, both verb forms remaining phonologically distinct, and identical to independent forms (5).

- (5) Limbu (van Driem 1987: 129)

a-ndzum-ille yəllik sama:n-ha? khu:tt-aŋ
 1SG.POSS-friend-ERG much belongings-PL rob-1SG:S/O:PST
pi:r-aŋ
 give-1SG:S/O:PST
 'My friend robbed me of many belongings.'

Bantawa V_1 's and V_2 's are represented as distinct words in Doornenbal's grammar, but they do not entirely behave like independent words, since prefixes (for instance second person *tɪ-* in 6) only appear on the V_1 , and some of the indexation suffixes (as first person exclusive *-ka*) only occur on the V_2 .

- (6) Bantawa (Doornenbal 2009:168)

tɪ-man-nin kʰan-nin
 2-lose-1NS↔2 send.away-1NS↔2
 'YousG have forgotten USPL.EXCL'

- (7) Bantawa (Doornenbal 2009: 254)

kʰar-in lont-in-ka
 go-1/2PL come.out-1/2PL-EXCL
 'We shall rise again.'

Rather than being serial verb constructions as in Limbu, these complex predicates are a subtype of bipartite verbs, as each of the verbal roots only has partial phonological and morphological autonomy (Jacques 2018, Lahaussais 2020).

In Western and Northern Kiranti languages, such as Khaling, the auxiliaries have become considerably more integrated and are phonologically fused with the lexical verb, as illustrated in the partial paradigms in Table 1.

In Khaling bipartite verbs, both V_1 and V_2 conjugate for person, number and tense, and indexation suffixes can surface as codas when the root of the lexical verb is an open syllable as in the case of |*dza*| 'eat'. For instance, the 1PL.INCL suffix *-ki* in its reduced form *-k-* is inserted between the V_1 *dzo-* and the V_2 *-kʰa-*, and person/number is thus redundantly marked two times, an example of multiple exponence. Similar phenomena are found in other Kiranti languages (see in particular Lahaussais 2020 on Thulung).

In the case of closed syllable verb stems, the indexation suffixes cannot surface as independent segments, but the stem alternations they cause are still visible in some

Table 1: Comparison of the paradigm of $|dza|$ ‘eat’ with that of the compound verb $|dza-k^h\lambda|$ ‘eat completely; eat and go’ in Khaling.

Form	$ dza $ ‘eat’	$ dza-k^h\lambda $
1SG→3SG	<i>dza-ŋλ</i>	<i>dzλ-ŋ-k^hλt-u</i>
1DU.INCL→3	<i>dze-ji</i>	<i>dzê-j-k^hλts-i</i>
1PL.INCL→3	<i>dze-ki</i>	<i>dzê-k-k^hλ-kī</i>
2SG→3	<i>ʔi-dzɛ</i>	<i>ʔi-dzɛ-k^hλt-u</i>

cases. For instance, in (8), the verb stem *-lām-* from $|lipt|$ ‘light a fire’ shows nasalization of the coda *-p* to *-m* (with a falling tone), as a consequence of the merger of *-p* with the 1SG *-ŋ(λ)*, which does surface here as a distinct coda. This form also illustrates the fact that in Khaling, as in Bantawa, there is a single prefixal slot for the bipartite verb.⁴

(8) Khaling (Jacques et al. 2015)

ʔām-ʔɛ mi-ʔɛ tsuroʔ ʔi-lām-sa-ŋλ.

3SG-ERG fire-ERG cigarette 2/INV-light.up:1SG-APPL:N.PST-1SG

‘He lights a cigarette for me.’

3 Morphology

There are two distinct applicative morphemes in Kiranti languages: an ancient **-t* transitive suffix, which is fused with the verb roots and displays extensive morphophonological alternation, and the more recent applicative auxiliaries, which in most Kiranti languages form bipartite verbs with the root of the verb to which they are attached.

3.1 *-t* causative-applicative

The suffix **-t* serves to build applicative verbs in most, if not all, Kiranti languages. This section first presents the polyfunctionality of this suffix, then focuses on the stem alternations that occur in the paradigms of suffixed verb roots, and describes the distinct conjugation classes that came into being in some languages through a reflex of this suffix.

⁴ Note the instrumental use of the ergative form *mi-ʔɛ* ‘by/using fire’ in (8).

3.1.1 Applicative and causative suffixes in Kiranti

A pair of valency-increasing dental suffixes **-t* and **-s* are reconstructible to proto-Kiranti (Michailovsky 1985, Bickel et al. 2010, Michailovsky 2017, Jacques 2017), with cognates in other branches of the Trans-Himalayan family (Wolfenden 1929), in particular Dulong-Rawang (LaPolla 2000: 308), Old Chinese (Jacques 2016), Gyalrongic (Zhangshuya 2020: 161) and Jinghpo (Dai & Xu 1992:78).

The suffix **-t* has reflexes in all Kiranti languages, but it is unclear whether it is productive in any of them. In Khaling (khal1275), Bantawa (bant1281) and Yakkha (yakk1236), although it is no longer productive with independent verbs, it appears in the applicative bipartite verb construction, which is fully productive (§3.2.2).

In most languages, it is only found in a limited number of verbs, with either causative or applicative function. A second suffix **-s*, which only has a causative function, has been lost in most Kiranti languages, but preserved in Southern (Bantawa bant1281, Doornenbal 2009: 230) and Eastern Kiranti (Limbu limb1266, van Driem 1987: 245-265, Chintang chhi1245, Bickel et al. 2010).

These two suffixes can be illustrated with the following examples from Limbu (Michailovsky 1985).

(9) Limbu

- a. |**ha:p**| ‘weep’ (intransitive, base form)
ha:b-ε
 weep-PST
 ‘S/he was weeping/wept.’
- b. |**ha:pt**| ‘mourn, weep for’ (transitive, applicative)
ha:p-t-u
 weep-APPL-3:O
 ‘S/he is/was mourning him/her.’
- c. |**ha:ps**| ‘cause to weep’ (transitive, causative)
ha:p-s-u
 weep-CAUS-3:O
 ‘S/he makes/made him/her cry.’

In addition to the applicative function illustrated in (9b), the *-t* suffix also has a causative function with some verb bases, in particular motion verbs (Table 2). These forms are found in all Kiranti languages.

It is possible that motion verbs are the pivot through which the originally applicative prefix was reinterpreted as a causative, as meanings such as ‘bring’ or ‘take’ can be derived from ‘come’ and ‘go’ through both a comitative applicative (10) or a causative (11).

Table 2: The causative function of the *-t* suffix in motion verbs in Limbu.

<i>tʰaŋ</i>	‘come up’	<i>tʰak-t</i>	‘bring up’
<i>yu</i>	‘come down’	<i>yu:-t</i>	‘bring down’
<i>phɛn</i>	‘come (same level)’	<i>phɛt-t</i>	‘bring (same level)’
<i>ta</i>	‘come’	<i>ta:-t</i>	‘bring’

(10) ‘come with X’ → ‘bring’

(11) ‘cause X to come’ → ‘bring’

There is also an unrelated formative *-t* occurring on intransitive verbs, which Michailovsky (2017) refers to as ‘deponent’ verbs. Its only identifiable derivational function is denominal verbalizing (Jacques 2017).

3.1.2 Applicative and stem alternations

Due to language-specific morphophonological alternations, the applicative **-t* suffix is not realized as a distinct segment in all the slots of the paradigms, and its presence is sometimes only indirectly detectable from stem alternations. In Khaling (khal1275) for instance, the Kiranti language with the highest number of verb stem alternations (Jacques et al. 2012), the contrast between applicative conjugations and the corresponding monotransitive conjugations is only visible in forms combining a first or second person singular subject with a third person object (1SG→3, 1SG→3) and in non-local configurations (when both arguments are third person). In all other configurations, including inverse (3→1, 3→2), local (1→2, 2→1), and direct forms with a dual or first/second plural transitive subject, applicative forms cannot be distinguished from monotransitive conjugations, as illustrated in Table 3, where ambiguous forms are shaded in grey.

The applicative suffix surfaces as *-d-* or *-t-* in non-past forms with a singular subject and third person object. In the past tense, which is marked by a suffix *-t-*, the applicative *-t* cannot be realized as a segment, but triggers the ‘strong’ stem in singular subject forms with a falling tone (in the case of |*kur*| ‘carry’, the strong stem is *kar-*, and the weak stem *kur-*).

Table 3: Comparison of monotransitive and applicative paradigms in Khaling (selected forms).

Form	<i>kur</i> ‘carry’	<i>kurt</i> ‘bring for’
1SG3→SG.N.PST	<i>kur-u</i>	<i>kārd-u</i>
1DU.INCL→3SG.N.PST	<i>kur-i</i>	<i>kur-i</i>
1PL.INCL→3SG.N.PST	<i>kār-ki</i>	<i>kār-ki</i>
2SG→3SG.N.PST	<i>ʔi-kū:r-u</i>	<i>ʔi-kārd-u</i>

Table 3 (continued)

Form	<i>kur</i> ‘carry’	<i>kurt</i> ‘bring for’
2PL→3SG.N.PST	<i>ʔi-kār-ni</i>	<i>ʔi-kâr-ni</i>
3SG→3SG.N.PST	<i>kə:r-ũ</i>	<i>kârd-ũ</i>
1SG→3SG.PST	<i>kur-u-ta</i>	<i>kâr-ta</i>
1DU.INCL→3SG.N.PST	<i>kər-iti</i>	<i>kər-iti</i>
1PL.INCL→3SG.N.PST	<i>kār-tiki</i>	<i>kâr-tiki</i>
2SG→3SG.PST	<i>ʔi-kûr-tɛ</i>	<i>ʔi-kâr-tɛ</i>
2PL→3SG.PST	<i>ʔi-kər-tɛ-nu</i>	<i>ʔi-kər-tɛ-nu</i>
3SG→3SG.PST	<i>kûr-tɛ</i>	<i>kâr-tɛ</i>

3.1.3 Coda alternations

In addition to the vocalic and tonal alternations illustrated above, the codas of some verb roots undergo alternation when combined with the applicative suffix. In Khaling, the only such alternation involves the assimilation of *-ŋ* to *-n-* (Jacques 2015).⁵

Bantawa has the greatest number of alternations of this type (Doornenbal 2009: 233), illustrated in Table 4: *-s* assimilates to *t*, *-r* and *-l* merge with *n* before *t* or assimilate to *t*, and some nasal codas are denasalized. These alternations are not regular, and have exceptions.

Table 4: Examples of alternations in the coda of verb roots triggered by the applicative *-t* in Bantawa.

Base verb	Applicative verb
<i>t^hom</i> ‘dance’ (tr)	<i>t^hop-t</i> ‘dance for someone’
<i>kus</i> ‘heat’ (tr)	<i>kut-t</i> ‘heat for someone’
<i>k^hur</i> ‘carry’	<i>k^hut-t</i> ‘carry for someone’

3.1.4 Applicative conjugation in Hayu

Hayu (wayu1241) is the only Kiranti language (and possibly the only Trans-Himalayan language) in which the *-t* applicative is compatible with the majority of verb roots (Michailovsky 1988: 89), in the form of a special conjugation in non-dual direct forms (5), which neutralizes the Past/Non Past contrast except in first person plural forms. As in Khaling, base forms and applicative ones are identical in local and inverse configurations.

⁵ For instance, the motion verb |*k^hoŋ*| ‘come (upwards)’ has the causative |*k^hoŋt*| ‘bring (upwards)’, whose 1SG→3SG.N.PST is *k^hond-u* ‘I bring it upwards’.

Table 5: Selected forms of the applicative person-indexing paradigm in Hayu.

Form	base		applicative	
	N.PST	PST	N.PST	PST
1SG→3SG	-ŋ/-N/-səŋ	-kəŋ	-təŋ	-təŋ
1PL.INCL→3	-ke	-kikeŋ	-tike	-tikeŋ
1PL.EXCL→3	-kok	-kikoŋ	-tikok	-tikoŋ
2/3SG→3SG	∅	-ko	-to	-to
2/3SG→3PL	-me	-kome	-tome	-tome

Michailovsky (1988) analyzes this paradigm as a distinct conjugation class, and refrains from segmenting the applicative *-t-* from the rest of the ending.

3.2 Applicative complex predicates

3.2.1 Applicative auxiliaries

All Kiranti languages for which a detailed description is available (except Hayu) have at least one complex predicate construction (§2.5) with a applicative/benefactive V_2 (Table 6).

Some Eastern Kiranti languages, Yakkha, Belhare and Yamphu, have two distinct V_2 's used in applicative constructions. In Yamphu for instance, the V_2 *-pett* is the default applicative, while *-khitt* only occurs with manipulation verbs, and specifically means 'bring for'.

Table 6: Kiranti complex predicates with applicative function.

Language	Applicative	Source	Reference
Wambule	<i>-gwakt</i>	<i>gwakt</i> 'give'	Opgenort (2004: 424–426)
Jero	<i>-gəkt</i>	<i>gəkt</i> 'give'	Opgenort (2005: 213)
Khaling	<i>-sa(t)/-sət</i>	<i>sətt</i> 'greet, pass to'	
Dumi	<i>-khotnd-</i>	<i>khotnni</i> 'proffer'	van Driem (1993: 205)
Koyi	<i>-khond</i>	?	Lahaussais (2009: 19)
Thulung	<i>-sa(t)</i>		Lahaussais (2002: 212–214)
Kulung	<i>-pi</i>	<i>pi</i> 'give'	Tolsma (2006: 95–96)
Bantawa	<i>-pi</i>	<i>pi</i> 'give'	Doornenbal (2009: 284–285)
Puma	<i>-idt</i>	<i>it</i> 'give'	Sharma (2014: 299)
Camling	<i>-pid</i>	<i>it</i> 'give'	Ebert (2017: 731)
Chintang	<i>-bid</i> <i>-dhett</i>	<i>pit</i>	Paudyal (2015: 122)
Yakkha	<i>-piʔ</i> <i>-ni</i>	<i>piʔ</i> 'give'	Schackow (2015: 297–302) Schackow (2015: 299)
Belhare	<i>-pir</i>	<i>pir</i>	Bickel (2017: 710)

Table 6 (continued)

Language	Applicative	Source	Reference
Yamphu	-pett		
	-pett		Rutgers (1998: 178)
	-khitt		Rutgers (1998: 179)
Limbu	-pi	 pi ‘give’	van Driem (1987: 128–129)

Most of these V_2 ’s are transparently grammaticalized from verbs meaning ‘give’, and are not cognate across Kiranti. In Thulung, Allen (1975) reports the existence of a verb **samu** ‘give’ as the lexical source for the applicative V_2 , but it appears to be restricted to complex predicates. In Dumi, both the applicative V_2 and its source verb *khotnni* ‘proffer’ have highly irregular alternations, and no root form can be reconstructed (Michailovsky 2012). In Khaling, the V_2 **-sa(t)/-sot** also presents complex alternations between the stems **-sa-**, **-sa-**, **-sat-**, **-sots-** and **-ses-**, which are not found in any independent verb form, and look like a patchwork from **|a|**, **|ut|** and **|ot|** conjugation classes. There is no historical explanation for this pattern, but it is also shared by other V_2 ’s such as the associated motion **k^hla(t)** ‘do *X* and go’ (Jacques et al. 2021), which originates from the verb **|k^hot|** ‘go’.

The fact that the verbs that were grammaticalized as applicative V_2 ’s are not cognate across all of Kiranti languages suggests that this construction is not reconstructible to the proto-language, and developed independently in each of the subbranches of this subgroup. It is possible that they arose as a calque of the benefactive construction in Nepali, which involves the verb *dinu* ‘give’ (Pokharel 2005).

Most of the V_2 ’s in Table 6 are dedicated applicative derivations, but some can also be used as causatives. In Thulung for instance, the V_2 -**sa(t)** has a permissive function in (12).

(12) Thulung (Allen 1975)

luŋ-ka ne pi khlos-ta ma t^hau qi-sa^t-qutsi
 stone-ERG TOP IDEO return-3SG.PST CONJ place leave-APPL-3SG→3DU.PST
 ‘A stone suddenly turned round and allowed them to leave.’

3.2.2 Double marking of applicative derivation

In Khaling, the applicative **-sa(t)** differs from other V_2 ’s in that the V_1 with which it combines follows the conjugation of **-t** suffixed verb roots, even when the applicative **-t** suffixed form is not attested as an independent verb. The applicative derivation is thus doubly marked by the **-t** suffix and the V_2 .

The **-t** suffix is directly visible in the paradigms of open syllable verbs, where it surfaces as **-s-**, **-j-** or **-ç-**, as illustrated in Table 7, due to a series of regular morphoph-

onological rules (described in Jacques et al. 2012). The verb $|p^hlo|$ ‘help’ lacks a corresponding $-t$ applicative verb form † $|p^hlo-t|$.

The applicative paradigms are complicated by the fact that some V_1 ’s have preserved all expected stem alternations (for instance $|mu|$ ‘do’ in Table 7), while other V_1 ’s have generalized the same stem to most of the paradigm. For instance, $|p^hlo-(t)-sa(t)|$ ‘help on X ’s behalf’ has the stem form p^hlo- in nearly all forms. As it is unpredictable, the proportion of analogical forms has to be specified in the lexical entry of each verb.

In closed syllable verb roots, the $-t$ suffix never surfaces directly, but the presence of the *strong stems* (Jacques et al. 2012) in singular subject forms ($kar-$ in Table 8) indicates that the paradigm of the V_1 is based on that of the $-t$ applicative (compare with the conjugation of $|kurt|$ ‘bring for’ in Table 3).

Table 7: Selected forms of the paradigm of the $sa-$ applicative from $|mu|$ ‘do’ and $|p^hlo|$ ‘help’ in Khaling.

Form	$ mu-(t)-sa(t) $ ‘do on X ’s behalf’	$ phlo-(t)-sa(t) $ ‘help on X ’s behalf’
1SG→3SG.N.PST	$ma-s-sat-u$	$p^hlo-s-sat-u$
1DU.INCL→3SG.N.PST	$mu-s-sots-i$	$p^hlo-s-sots-u$
1PL.INCL→3SG.N.PST	$ma-ç-sa-ki$	$p^hlo-s-sa-ki$ ($p^hlo-ç-sa-ki$)
2SG→3SG.N.PST	$?i-ma-s-sat-u$	$?i-p^hlo-s-sat-u$
2PL→3SG.N.PST	$?i-ma-n-sa-ni$	$?i-p^hlo-n-sa-ni$
3SG→3SG.N.PST	$ma-s-sat-u$	$p^hlo-s-sat-u$
2/3SG→1SG.N.PST	$?i-ma-j-sa-ηa$	$?i-p^hlo-j-sa-ηa$
3SG→2SG.N.PST	$?i-ma-ç-sa$	$?i-p^hlo-sa$
1SG→3SG.PST	$ma-s-sat-a$	$p^hlo-s-sat-a$
1DU.INCL→3SG.N.PST	$mu-s-sots-ti$	$p^hlo-s-sots-ti$
1PL.INCL→3SG.N.PST	$ma-ç-sa-ktiki$	$p^hlo-s-sa-ktiki$
2SG→3SG.PST	$?i-ma-s-sat-ε$	$?i-p^hlo-s-sat-ε$
2PL→3SG.PST	$?i-mu-s-sots-tε-nu$	$?i-p^hlo-s-sots-tε-nu$
3SG→3SG.PST	$ma-s-sat-ε$	$p^hlo-s-sat-ε$

Table 8: Selected forms of the paradigm of the $sa-$ applicative from $|kur|$ ‘carry’ in Khaling.

Form	$ kur-(t)-sa(t) $ ‘carry for X ’
1SG→3SG.N.PST	$kâr-sat-u$
1DU.INCL→3SG.N.PST	$kur-sots-i$
1PL.INCL→3SG.N.PST	$kâr-sa-ki$
2SG→3SG.N.PST	$?i-kâr-sat-u$
2PL→3SG.N.PST	$?i-kâr-sa-ni$
3SG→3SG.N.PST	$kâr-sat-u$

Table 8 (continued)

Form	<i>kur</i> -(<i>t</i>)- <i>sa</i> (<i>t</i>) ‘carry for <i>X</i> ’
2/3SG→1SG.N.PST	<i>ʔi-kār-sa-ŋa</i>
3SG→2SG.N.PST	<i>ʔi-kār-sa</i>
1SG→3SG.PST	<i>kār-sat-a</i>
1DU.INCL→3SG.N.PST	<i>kur-səs-ti</i>
1PL.INCL→3SG.N.PST	<i>kār-sa-ktiki</i>
2SG→3SG.PST	<i>ʔi-kār-sat-ε</i>
2PL→3SG.PST	<i>ʔi-kur-səs-tε-nu</i>
3SG→3SG.PST	<i>kār-sat-ε</i>

Khaling is not the only language with double marking of applicative derivations. In Yakkha, the V_2 *-piʔ* requires the applicative suffix *-t* on the V_1 when used in applicative/benefactive function (Schackow 2015: 371). The V_2 *-piʔ* lacks valency-increasing function when used without the *-t* suffix, and expresses either telicity or that ‘some participant is affected by the event in undesirable ways’, without introducing a new argument (Schackow 2015:299). In such cases, an applicative construction with the transitivizer *-ni* can be used as the applicative function of the intransitive *-piʔ* construction; compare (13a) with (13b). This type of equipollent derivation is restricted to a handful of verbs.

(13) Yakkha (Schackow 2015: 299)

- a. *ka mund-a-by-a-ŋ=na.*
1SG forget-PST-V2.give-PST-1SG=NMLZ.SG
‘I was forgetful.’
- b. *muʔ-ni-nen=na.*
forget-transitivizer-1→2=NMLZ.SG
‘I forgot you.’

3.2.3 Applicative derivations from intransitive bases

When the *-sa(t)/-sot* applicative is applied to intransitive verbs in Khaling, their stem also receives the additional *-t*. When these intransitive verbs already have a *-t* applicative or causative counterpart, the *-sa(t)/-sot* applicative of the intransitive verb is identical to that of its transitive form. For instance, the motion verb |*k^hot*| ‘go’ and its causative |*k^hott*| ‘take’ have the same applicative form (Table 9).⁶

⁶ In addition, Table 7 illustrates the fact that V_1 stems ending in dental obstruents originating from **t* by morphological alternations (*-Vt/d/ts-*, but not *-ç-*) assimilate to *-Vs-* when followed by the V_2 *-sa(t)/-sots*.

Table 9: Partial paradigm of |*kʰott*| ‘take’ and the applicative of |*kʰot*| ‘take’ and |*kʰot*| ‘go’.

Form	<i>kʰot</i> ‘go’	<i>kʰott</i> ‘take’	Applicative
1SG(→3SG.N.PST)	<i>kʰoʃj-ŋa</i>	<i>kʰott-u</i>	<i>kʰoʃs-sat-u</i>
1DU.INCL(→3SG.N.PST)	<i>kʰets-i</i>	<i>kʰets-i</i>	<i>kʰes-səts-i</i>
1PL.INCL(→3SG.N.PST)	<i>kʰoʃ-ki</i>	<i>kʰoʃ-ki</i>	<i>kʰoʃ-sa-ki</i>
2SG(→3SG.N.PST)	<i>ʔi-kʰoʃj</i>	<i>ʔi-kʰott-u</i>	<i>ʔi-kʰoʃs-sat-u</i>
3SG(→3SG.N.PST)	<i>kʰoʃj</i>	<i>kʰott-u</i>	<i>kʰoʃs-sat-u</i>

For instance, the form *kʰoʃs-sat-u* can either be interpreted as the applicative form of *kʰott-u* ‘I will take it’ (14a) or that of the intransitive *kʰoʃj-ŋa* ‘I will go’ (14b).⁷

(14) Khaling

- a. *kitap kʰoʃs-sat-u*
 book take-APPL-1SG→3
 ‘I will take the book for him/her.’
- b. *kitap ʔaŋ-bi kʰoʃs-sat-u*
 book buy:INF-LOC go:APPL-APPL-1SG→3
 ‘I will go to buy the book for him/her.’

4 Syntax

While grammars of Kiranti provide extensive data on the morphology of applicative constructions, their syntax remains imperfectly described, and this section mainly focuses on Khaling.

Since beneficiaries can be marked by means of a postposition (§2.2), applicative derivation selecting a beneficiary as ApplO (on which see §5) cannot be considered to be obligatory. This is not the case with other types of semantic roles (including goal or stimulus), for which no alternative construction is possible to express the same meaning (see Creissels on Tswana, §3.1, this volume).

4.1 Transitivity of the base verb

4.1.1 Intransitive verbs

In all Kiranti languages, the *-t* suffix (§3.1) can derive applicative verbs from intransitive verb roots. The intransitive subject of the BC (in the absolutive, see 15a) corre-

⁷ For an account of the intransitive conjugation, see Jacques et al. (2012).

sponds to the transitive subject in the AC, marked in the ergative (15b),⁸ and the added argument is the direct object of the AC.

(15) Khaling

- a. *ām ηāi*
 3SG be.afraid:N.PST:3SG
 'He is afraid.'
- b. *ām-ʔε nêr ηān-d-u*
 3SG-ERG tiger be.afraid-APPL-3SG→3:N.PST
 'He is afraid of the tiger.'

V₂ applicatives (§3.2, §3.2.3) occur with intransitive bases in most Kiranti languages, with the same reorganization of argument structure, as illustrated in (16).

(16) Khaling

- a. *tsəttə tsêr-tə*
 child piss-2/3SG:PST
 'The child pissed.'
- b. *tsəttə-ʔε ʔi-tsêr-səs-ta*
 child-ERG 2/INV-piss-APPL-1SG:PST
 'The child pissed on me.'

In Limbu (van Driem 1987: 128) and Bantawa (Doornenbal 2009: 284), however, V₂ applicatives are only found with transitive bases.

4.1.2 Transitive verbs

While in Eastern and Southern Kiranti languages, the *-t* applicative often occurs with transitive bases, in Khaling, only one such example is attested: |*kurt*| 'bring for' from |*kur*| 'carry' (Table 3).

The V₂ *-sa(t)* is used instead to build the applicative of all other transitive verbs. For instance, the transitive verb |*jok*| 'distribute, share' selects as its object the entity being distributed, and the only possibility to promote the people who receive the shares from the distribution to argument status is by using the applicative V₂ *-sa(t)*, as in (17b). Both the ApplO and the object of the BC (henceforth BO) are in absolutive form, but the verb indexes the number of the ApplO.

⁸ Examples (15a) and (15b) illustrate the verb root *s* |*jin*| 'be afraid' and |*jint*| 'be afraid of', respectively, with regular morphophonological alternations.

(17) Khaling (Jacques et al. 2015)

a. *ʔuŋa lēmpɛ jog-u.*

1SG:ERG sweet distribute-1SG→3:N.PST

‘I distribute sweets.’

b. *ʔuŋa tsətsə-hem lēmpɛ jok-sat-u-nu.*

1SG:ERG child-PL sweet distribute-APPL-1SG→3:N.PST-PL

‘I distribute sweets to the children.’

In languages such as Bantawa and Thulung, which mark direct objects with the dative suffix *-lai* (§2.2), both the ApplO (18) and the BO(19) can receive dative case.

(18) Thulung

go oram nem a-lwak-lai

1SG PROX.DEM house 1SG.POSS-younger.sibling-DAT

qi-sat-pu

leave-APPL-1SG→3SG

‘I leave this house to my brother.’

(19) Thulung

go i:nima tsəttə-lai qulumtsa-ka jal-sa-nini

1SG 2PL.POSS child-DAT stick-INSTR strike-APPL-1SG→2PL

‘I will strike your child for you with a stick.’

In Khaling, applicative verbs derived from a transitive base generally become ditransitive, with both the BO and the ApplO in absolutive form, though the latter can optionally be marked with the benefactive case when the applicative has a benefactive interpretation (§2.2). The applied phrase is thus not completely assimilated to the grammatical function of object.

For instance, in (20), the ApplO *ʔa-tsə-su* ‘my two sons’ can either be in absolutive form or receive the complex marker *-po lagi* ‘for’.⁹

(20) Khaling

ʔa-tsə-su(-po lagi) kitap

1SG.POSS-son-DU(-GEN for) book

ʔan-sat-a-su

buy:APPL-APPL-1SG→3SG.PST-DU

‘I bought book(s) for my two sons.’

⁹ The ablative *-laka*, which occurs in ditransitive constructions to mark the beneficiary (§4.1.3) is not possible with this verb.

Although the ApplO is most often indexed as direct object as in (17b), (20) and (21a), when the BO is first or second person and the ApplO is third person, the former can be indexed instead (as in 21b) due to its being higher in the person hierarchy.

(21) Khaling

- a. *ʔuŋa ʔi-tso tʰɿ-sa-nɛ*
 1SG:ERG 2SG.POSS-son wake-APPL-1SG→2SG:N.PST
 'I will wake your son for you.'
- b. *ʔuŋa ʔi-mɛm-po lagi ʔin*
 1SG:ERG 2SG.POSS-mother-GEN for 2SG
tʰɿ-sa-nɛ
 wake-APPL-1SG→2SG:N.PST
 'I wake you on your mother's behalf.'

In Hayu (§3.1.4), the *-t* applicative can be applied to most transitive verbs, in the form of a specific applicative conjugation (see Table 5). Since both the applied object and the original object are marked in the absolutive, examples as (22) are ambiguous as to whether the overt noun is the applied phrase or not (Michailovsky 1988: 142).

(22) Hayu (Michailovsky 1988: 142)

- ga aŋ uxpʊ pʊk-t-uŋ-mi*
 1SG:ERG 1SG.POSS father lift-APPL-1SG → 3-ASSERT
 (a) 'I wake/woke my father.'
 (b) 'I wake/woke my father for him/her (someone else).'
 (c) 'I wake/woke him/her/it for my father.'

In addition, interpretation (a) in (22) is very close to the meaning of the BC (23), but has the additional nuance of forced causation ('I forced my father to get up'). Intensive or coercive meaning without increase in the number of participants is attested in causative derivations (especially double causatives, see Kulikov 1993), but appears to be rare in applicative derivations.

(23) Hayu

- ga aŋ uxpʊ pʊk-k-uŋ-mi*
 1SG:ERG 1SG.POSS father lift-PST-1SG3-ASSERT
 'I woke my father.'

Person hierarchy effects are also observed: either the beneficiary (24a) or the object of the BC (24b) can be indexed on the verb. When the original object is a first or second person and the beneficiary a third person, the beneficiary is marked with the suffix *-le:si* (24b). In such forms, the morphological contrast between applicative and non-ap-

plicative conjugations is neutralized (§3.1.4), so that (24b) does not count as a genuine case of applicative construction.

(24) Hayu (Michailovsky 1988: 142)

- a. *ga gon co puk-no-m*
 1SG 2SG child raise- 1→2-ASSERT
 ‘I will wake the child up for you.’
- b. *minoŋ-le:si ga gon puk-no-m*
 3SG-for 1SG 2SG raise-1→2-ASSERT
 ‘I will wake you up for him.’

Michailovsky (1988: 140) also reports a conflicting example, where the verb is marked in the 3SG→3 applicative suffix *-to* (Table 5), but the beneficiary (1SG) is not indexed, and receives instead the suffix *-le:si*. This isolated example, which runs counter to the person hierarchy observed in the rest of Kiranti, is difficult to interpret in the absence of additional data from this language.

(25) Hayu

- komi-ha aŋ-le:si kolu xo:co six-to-m*
 3SG-ERG 1SG-for one chicken kill-APPL:2/3→3-ASSERT
 ‘He killed a chicken for me.’

4.1.3 Ditransitive verbs

Applicative derivations with ditransitive verbs are poorly documented in existing grammars of Kiranti languages. In Khaling, the applicative of *|bi|* ‘give’ expresses a double transfer of property, with a direct recipient in the absolutive, and an indirect recipient which may be optionally marked with the benefactive postpositions. In (26), the 2SG indirect recipient is indexed as object in the verb morphology, though it receives optional marking of the ablative suffix *-laka*, marking here the beneficiary.

(26) Khaling

- ʔuŋa ʔin-laka Boyd kitap bîn-san-tēni*
 1SG-ERG 2SG-ABL Boyd book give:APPL-APPL-1SG→2SG:PST
 ‘I gave Boyd a book for you.’

When the direct recipient is higher in the person hierarchy than the indirect one, speakers have hesitations about whether the direct recipient is to be encoded as object in verbal indexation rather than the indirect one. Example (27), where the 2sg direct recipient is encoded as an object, is the consensus obtained after a thorough discussion between speakers.

(27) Khaling

ʔuŋʌ Boyd-laka kitap ʔin bin-san-teni
 1SG:ERG Boyd-ABL book 2SG give-1SG→2SG:PST
 ‘I gave you a book for Boyd.’

4.2 Combination with other voices and complex constructions

The Khaling V_2 applicative **-sa(t)** is not compatible with reflexive derivations. For instance, the applicative **|mo-(t)-sa(t)|** ‘vomit on’ (see 38 below), from the intransitive verb **|mo|** ‘vomit’, cannot be combined with reflexive-middle **-(N)si** derivation (Jacques et al. 2016) to express the meaning ‘vomit on oneself’.

The form expressing this meaning (28) appears at first glance to only contain a verb stem from the root **|mo|** ‘vomit’ followed by the reflexive **-nsi** suffix.

(28) Khaling

moŋ-nsi-ŋa-ta
 vomit:APPL-REFL-1SG-PST:1SG
 ‘I vomited on myself.’

However, there is a morphological complication here: the stem **mo-** rather than **moŋ-** would have been expected from the root **|mo|** in the 1SG. The stem form **moŋ-** corresponds to the conjugation class **|-ot|** (Jacques et al. 2016). This piece of indirect evidence indicates that **moŋnsiŋata** ‘I vomited on myself’ is not directly derived from the intransitive **|mo|** ‘vomit’, but rather from the non-attested **-t** applicative †**|mo-t|**, which occurs as first element of the applicative **|mo-(t)-sa(t)|** ‘vomit on’. We thus have a partial preservation of applicative derivation in this reflexive form.

The V_2 applicative **-sa(t)** can occur in the reciprocal periphrastic construction, which combines the auxiliary **|lu|** ‘feel’ with the bare infinitive of the verb root of the BC. This infinitive selects the *reduced strong stem* (Jacques et al. 2012: 1119) of the V_1 , for instance **ʔaŋ-** from the root **|ʔiŋ|** ‘buy’ in (29).

(29) Khaling

ʔām-su kitap ʔaŋ-sa lū-iti
 3-DU book buy-APPL feel-DU:PST
 ‘They two bought books for each other.’

Yakkha presents a similar situation: applicative verbs can undergo reciprocal derivation, as can be seen in example 30 (Schackow 2015: p 274), but it is not possible to combine applicative V_2 's and reflexive derivations.¹⁰

(30) Yakkha

Kancin moja pham-bi-khusa ca-me-ci=ha
 1DU sock knit-APPL-RECIP eat.AUX-N.PST-[1]DU=NMLZ.N.SG
 'We knit socks for each other.'

In Khaling, the applicative can also be employed in the periphrastic desiderative construction with the impersonal verb |*dhak*| 'want', involving optional reduplication of the last syllable of the bare infinitive (in this case, the V_2 -*sa*)

(31) Khaling

?ām kitap ?a-?āŋ-sa~sa dā:
 3SG book 1SG-buy-APPL~DESID want:3SG:N.PST
 'I want to buy a book for him.'

5 Semantics

The -*t* applicative conveys various semantic roles to the ApplO, including goal, stimulus, instrument or beneficiary/maleficiary. These general properties are illustrated below with data from Khaling and Hayu.

In Khaling, the applied object of applicative verbs derived by the -*t* suffix can be a *goal* (or an addressee), a *stimulus* or a *beneficiary* depending on the base verb, but each applicative verb only has one fixed interpretation (Table 10) and these verbs are highly lexicalized (Jacques 2015).

For instance, the applicative |*ŋint*| of the intransitive verb |*ŋin*| 'be afraid' can only be interpreted as 'be afraid of' (see 15b above, §4.1.1): its ApplO is necessarily a stimulus, and cannot be beneficiary (entailing an interpretation 'be afraid for X').

The only -*t* applicative with a beneficiary interpretation in Khaling, |*kurt*| 'bring for' (Table 3), has a counterpart with a V_2 (Table 8) with the more compositional meaning of 'carry for'.

Instrumental applicatives are not found in Khaling, but in Hayu (§3.1.4), the applicative conjugation (32b) can either convey beneficiary (i) or instrumental (ii) roles to the ApplO for most verbs (32a).

¹⁰ Belhare has a specific V_2 marking autobenefactive (Bickel 2017: 710), and this meaning is not expressed by combining the applicative V_2 with the regular reflexive.

Table 10: -*t* applicatives in Khaling.

base	meaning	applicative	meaning	semantic role
<i>ɲur</i>	roar	<i>ɲurt</i>	roar at	goal
<i>bhur</i>	be angry	<i>bhurt</i>	scold	goal
<i>bhrot</i>	shout	<i>bhrott</i>	call	goal
<i>ret</i>	laugh	<i>rett</i>	laugh at	goal
<i>lem</i>	be sweet	<i>lemt</i>	coax	goal
<i>ɲin</i>	be afraid	<i>ɲint</i>	be afraid of	stimulus
<i>tshil</i>	be frustrated	<i>tshilt</i>	be dissatisfied with	stimulus
<i>kur</i>	carry	<i>kurt</i>	bring for	beneficiary

(32) Hayu (Michailovsky 1988: 141)

- a. *ga ruk-k-ɲ-mi*
 1SG:ERG plough-PST-1SG→3-ASSERT
 ‘I ploughed it (of a field).’
- b. *ga ruk-t-ɲ-mi*
 1SG:ERG plough-PST:APPL-1SG→3-ASSERT
 (i) ‘I ploughed for him/her.’
 (ii) ‘I ploughed using it (of an ox).’

In addition, the applicative can also have a forced causation interpretation in Hayu, as illustrated by (22) above.

As for the V_2 applicatives (Table 6), their default interpretation in all Kiranti languages is that of benefactive (‘for *X*’, ‘on *X*’s behalf’) illustrated below with data from Khaling. Example (33) shows a typical example of benefactive V_2 construction, with a 1SG beneficiary indexed on the verb.

(33) Khaling

tikîm poɔpoɔp ni sâ:-ʔɛ go
 DEM:AUDITORY owl TOP who-ERG FOC
ʔi-sêj-sa-ɲa-nu
 INV/2-kill-APPL:N.PST-1SG-PL
 ‘Who is going to kill that (noisy) owl for me?’ (<https://doi.org/10.24397/pangloss-0000608#S54>)

When the applicative V_2 has a benefactive interpretation, the ApplO can be optionally marked with benefactive case marking, even while being indexed on the verb (20).

This construction is used to specify the recipient of an action (for instance, with the verb |*jok*| ‘distribute’, see 17b). The benefactive function for the applicative V_2 has in some cases meanings that are not entirely compositional. In particular, it can turn verbs of

manipulation into verbs of transfer of property. For instance, the V_2 applicative of the transitive verb |*pum*| ‘hold in one’s fist’ specifically means ‘give something by putting it into someone’s fist’ (34), an action in which the giver, holding the object to be given in his fist, places it in the palm of the recipient (so that the latter does not see what is being given).

- (34) Khaling (Jacques et al. 2015)
ʔām-ʔε kheptsi pām-sa-tε.
 3SG-ERG money hold.in.fist:APPL-APPL-3SG:PST
 ‘He put money into his hand.’

Similarly, |*lott*| ‘reach into’, a verb which selects bags or containers as object, has an applicative form meaning ‘go somewhere to fetch something for someone’ (35).

- (35) Khaling (Jacques et al. 2015)
ʔuŋa pasal-bi-m saman ʔin
 1SG:ERG shop-LOC-NMLZ thing 2SG
loŋn-sa-nε.
 reach.into:APPL-APPL-1SG→2:N:PST
 ‘I will fetch your things in the shop.’

Apart from the benefactive/recipient function, the V_2 applicative in Khaling has three other possible interpretations.

First, when the applied object is the possessor of the original object, as in (36a), the V_2 often has a malefactive meaning. When the BO is not possessed, a beneficiary interpretation is favoured (36b).

- (36) Khaling
 a. *ʔām-ʔε ʔa-kitap ʔi-kʰe-s-səs-ta*
 3SG-ERG 1SG.POSS-book 2/INV-steal-APPL-APPL-1SG:PST
 ‘He stole my book’.
 b. *ʔām-ʔε kitap ʔi-kʰe-s-səs-ta*
 3SG-ERG book 2/INV-steal-APPL-APPL-1SG:PST
 ‘He stole a book for me.’ (possible interpretation)

Second, with a limited number of verbs (such as |*iŋ*| ‘buy’), the applied object can also refer to the source from which the BO is obtained, as in (37).

- (37) Khaling
kitap ʔân-sa-nε
 book buy:APPL-APPL-1SG→2SG
 ‘I will buy the book for you.’ (as a present, benefactive)
 ‘I will buy the book from you.’ (you are a bookseller, source applicative)

Third, it can express the goal of the action with intransitive verbs of physical excretion such as |**mo**| ‘vomit’ (38), |**?e**| ‘shit’ or |**tser**| ‘piss’ (16b).

(38) Khaling

tsottso-ʔe ʔiŋ ʔi-mə-s-səs-ta

child-ERG 1SG 2/INV-vomit-APPL-APPL-1SG:PST

‘The child vomited on me.’

The semantic role of stimulus is almost never attributed to a ApplO by V₂ applicative derivations in Kiranti. The only exception is the transitivizer **-ni** in Yakkha, which does have this function with a handful of examples (see 13b, §3.2).

6 Lookalikes

All Kiranti languages have examples of object-preserving lability, illustrated by the root |**khutt**| ‘steal’ in Limbu, which means ‘steal, rob of’ when conjugated transitively (39c, 39d), and can be interpreted as ‘be stolen’ when occurring with intransitive morphology (39a).

A few Kiranti languages, including Puma and Limbu (but not Khaling), also have subject-preserving lability (Bickel et al. 2007), as in (39b), where |**khutt**| also shows the meaning ‘commit a theft’, with an intransitive subject corresponding to the transitive subject of (39c) and (39d).

(39) Limbu (van Driem 1991: 527)

a. **Sapla khutt-ε**

book steal-PST:INTR

‘The book was stolen.’

b. **A-ndzum-in khutt-ε**

1SG.POSS-friend-DEF steal-PST:INTR

‘My friend committed a theft.’

c. **mε-n-ni-baŋ-ba mənə-lle**

NEG-NEG-see-1SG→3:PST-NMLZ man-ERG

a-yaŋ-in khutt-u

1SG.POSS-money-DEF steal-3:O

‘A man I didn’t see stole my money.’

d. **A-ndzum-ille sapla khutt-aŋ**

1SG.POSS-friend-ERG book steal-1SG.O:PST

‘My friend robbed me of my book.’

The transitive construction in (39c) selects as transitive subject the same semantic role as the intransitive subject of (39b). The additional argument in (39c) has the semantic role of patient, and the relationship between (39b) and (39c) resembles that of an intransitive BC with an AC selecting a patient as ApplO, though without overt derivation.

The verb in example (39d) takes two arguments in addition to its subject: an absolutive argument (patient) not encoded in the verb morphology, and a second one indexed as direct object with a semantic role of maleficiary, possessor of the patient. Its semantics resembles that of a malefactive applicative construction (compare in particular 5 and 36a above), though again without any overt derivation.

7 Conclusion

The applicative constructions in Khaling and other Kiranti languages present features that are fairly widespread crosslinguistically, but a few observations are of wider interest.

First, a striking feature of one of the applicative markers (the suffix *-t*) is the fact that it appears in a specific set of applicative conjugation classes. Applicative forms are distinct from non-applicative ones *only in a subsection of the direct configurations*, involving a third person object and a non-dual subject, as observed in Khaling (§3.1.2) or Hayu (§3.1.4). This results in ambiguous forms in inverse configurations (3→1/2) and in local scenarios (1→2 and 2→1), as illustrated by (24) in §4.1.2.

Second, the parallel grammaticalization of V_2 applicatives across Kiranti (§3.2.1), which are not reconstructible to the proto-language renewed the applicative constructions throughout the whole subgroup (except Hayu). The morphological paradigms of these auxiliaries are highly irregular, but the irregularities do not appear to be shared across languages.

Third, the bipartite applicative constructions in Khaling, Bantawa and Yakkha (§3.2.2) exhibit double marking, expressing applicative derivation by a combination of the *-t* suffix (or its secondary effects on stem alternations) and of the applicative V_2 .

Fourth, the V_2 applicatives are not only compatible with intransitive and monotransitive verbs, but also occur on ditransitives, resulting in four-argument predicates (§4.1.3).

Fifth, the applicatives in Kiranti can convey a broad range of semantic roles to the ApplO on a verb-to-verb basis (§5).

Abbreviations

ApplO	applied object
BO	object of the base construction
ABL	ablative
APPL	applicative
ASSERT	assertive
CAUS	causative
CONJ	conjunction
DAT	dative
DEF	definite
DEM	demonstrative
DESID	desiderative
du	dual
ERG	ergative
EXCL	exclusive
FOC	focus
INCL	inclusive
INF	infinitive
INV	inverse
INSTR	instrumental
LOC	locative
N.	non-
NEG	negation
NMLZ	nominalization
NS	non-singular
PL	plural
PST	past
RECIP	reciprocal
SG	singular
TOP	topic

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28 Applicative constructions in languages of western Indonesia

Abstract: This chapter provides an overview of applicative constructions in a sample of eight Austronesian languages of western Indonesia. Following an orientation to the languages (§ 2) and the forms of their applicatives affixes (§ 3), we describe the semantic and syntactic properties of applicative constructions according to possible roles for the applied phrase. These include beneficiaries and recipients (§ 4), instruments and themes (§ 5), goals, locations, and addressees (§ 6), and other roles found in transitivity constructions, e.g. content phrases and stimuli (§ 7). For each type, we note the syntactic status of the AppP and any companion phrase (the participant expressed as P in a corresponding base construction), and semantic characteristics of the AC and compatible base verbs. We find that all languages of the sample allow a beneficiary AppP and a theme companion phrase to both be expressed as core arguments in ditransitive clauses. However, when the AppP is an instrument or goal, some languages require that the companion phrase be realized as an oblique or unexpressed. Remaining sections discuss lookalike constructions where an applicative suffix shows only an aspectual or semantic effect (§ 8), and describe interactions between applicatives and causative morphology (§ 9) as well as applicatives and voice (§ 10).

1 Introduction

In this chapter we examine a sample of Austronesian languages of a region that we refer to as *western Indonesia*, which includes Malayo-Polynesian languages spoken in Malaysia, Brunei, and many parts of western and central Indonesia (Sumatra, Java, Kalimantan, Sulawesi, Bali, and Lombok).¹ In these languages, applicative constructions (ACs) are typically marked by one of a small number of verbal affixes that while serving many

¹ We would like to recognize four individuals who shared their expertise on some of the languages in this paper: Khairunnisa for Sasak, Dewi Setiani for Sundanese, and Wawan Sahrozi and Johan Safriz for Nasal. Additionally, we are grateful to the editors of this volume as well as an anonymous reviewer for comments on an earlier version of this paper. The first author is also grateful to his research counterpart in Indonesia, Yanti (Atma Jaya Catholic University of Indonesia) and the Ministry of Research and Technology in Indonesia for allowing him to conduct research on Nasal. Discussion of the Nasal data is based upon work supported by the National Science Foundation under Grant BCS-1911641. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation. The second author would like to acknowledge the Bilinski Educational Foundation, which supported the collection of Sundanese data.

Table 1: Language Sample.

Language	Subgroup	Location	Sources
Toba Batak	Batak (Sumatran)	North Sumatra	van der Tuuk (1971 [1864–1867])
Nasal	Sumatran	Bengkulu	McDonnell fieldnotes
Sundanese	Sundic	West Java	Truong fieldnotes
Salako (Kendayan)	Malayic	Borneo	Adelaar (2005)
West Coast Bajau	Greater Barito	Sabah	Miller (2007)
Sasak	Bali-Sasak-Sumbawa	Lombok	Khairunnisa & McDonnell (in prep)
Pendau	Celebic	Central Sulawesi	Quick (2007)
Makasar	South Sulawesi	South Sulawesi	Jukes (2020)

non-applicative functions are clearly separate from voice morphology. To explore the range of diversity and commonality found within applicative systems in this region, we describe the syntax and semantics of ACs and applicative lookalikes in a sample of eight western Indonesian languages, listed here with their ISO 639–3 codes and glottocodes: Toba Batak [bbc/bata1289], Nasal [nsy/nasa1239], Sundanese [sun/sund1252], Salako [knx/kend1254], West Coast Bajau [bdr/west2560], (Ampenan) Sasak [sas/sasa1249], Pendau [ums/pend1242], and Makasar [mak/maka1311]. These languages all belong to the Malayo-Polynesian branch of the Austronesian family. While this selection of languages represents a convenience sample, limited in part by the availability of the relevant information, these languages are not closely related to one another and are geographically dispersed across major islands and island groupings of western Indonesia and eastern Malaysia.

This paper is organized as follows. Section 2 presents general information about the languages examined and their basic morphosyntax. This includes a critical description of transitive alternations often coded on the verb, which we refer to as voice. Section 3 gives a general introduction to the applicative suffixes in the languages of the sample. The following four sections describe ACs according to the semantic roles which map to the phrase licensed by the applicative marker. These include beneficiaries and recipients (Section 4), instruments and themes (Section 5), goals, locations, and addressees (Section 6), and other types of participants (Section 7). Section 8 describes morphological lookalikes in which an applicative suffix appears on the verb without resulting in a change in argument structure. Section 9 describes how applicative suffixes combine with causative morphology and other affixes. Section 10 discusses how voice and applicative morphology are used together in these languages. A conclusion follows in Section 11.

2 The languages and their basic morphosyntactic properties

The eight languages included in the sample for this chapter are listed in Table 1, along with basic information including genetic subgroup, geographic location and the sources we have primarily drawn on in the descriptions that follow. The authors have firsthand experience working with Sundanese, Nasal, and the Ampenan variety of Sasak, which differs to some extent from the varieties described in Austin (2001).

The western Indonesian languages in this sample range from moderately agglutinative (e.g. Pendau with the potential to have several prefixes and suffixes) to relatively isolating (e.g. Ampenan Sasak which at most can take a single prefix and single suffix). There is little to no casemarking and arguments of the verb are often unrealized when their reference is recoverable in the discourse. In general, core arguments are unmarked, while obliques are marked with a preposition. Intransitive predicates may be unmarked or marked with one of several affixes that express different semantic properties, such as stative, dynamic, reciprocal, non-volitional among others. Transitive predicates are typically marked for voice.

The voice systems of western Indonesian languages, however, differ in important ways from well-known voice systems with active-passive or ergative-antipassive alternations (see Chen & McDonnell 2019 for a recent summary). With some exceptions, these systems have been labeled *symmetrical voice*, which involve a two-way distinction between A-oriented and P-oriented transitive constructions. These constructions have been described as ‘symmetrical’ because they show little difference in terms of morphosyntactic complexity, syntactic transitivity, and frequency in discourse (Arka 2003, Himmelmann 2005, Riesberg 2014). While there are a number of salient similarities among the voice systems in the eight languages of the sample, there is considerable variation even in the principal components of symmetrical voice. Consider the examples from Toba Batak in (1).²

(1) Toba Batak, Voice alternations (Schachter 1984: 127–128)

- a. Man-jaha buku guru i.
AV-read book teacher DEF
‘The teacher read a book.’
- b. Di-jaha guru buku i.
PV-read teacher book DEF
‘A teacher read the book.’

² In examples, we have generally kept the orthographic conventions of original sources, but adopted unified glossing conventions throughout.

In A-oriented constructions, the predicate is typically marked by a prefix that contains a homorganic nasal that assimilates to—and in some cases replaces—the first consonant in the root to which it attaches.³ The abstract nasal segment is represented as *N*, and the AV prefix in Toba Batak is *maN-*. In this chapter, A-oriented constructions are referred to as A-Voice (AV) because they privilege A (i.e., the most agent-like argument in a transitive construction), which is *guru* ‘teacher’ in (1a). The P argument *buku* ‘book’ is unmarked and is considered a core argument.

Likewise, P-oriented constructions may be marked with various prefixes (e.g. *di-* in Toba Batak) and are referred to as P-Voice (PV) as they privilege P (i.e., the most patient-like argument in a transitive construction), which is *buku* ‘book’ in (1b). The A argument *guru* ‘teacher’ is unmarked and is considered core. The privileged argument in each construction has been referred to by many names (e.g. pivot, trigger, primary argument), but here we will follow the Indonesianist tradition (e.g. Musgrave 2001, Riesberg 2014) and refer to it as the *subject*. Since the core argument that is not privileged can be P as in (1a) or A as in (1b), the label ‘object’ is not appropriate. Thus, we again follow the Indonesianist tradition and refer to this argument as the *non-subject core argument* or simply *non-subject*.

The examples from Toba Batak demonstrates symmetrical voice clearly: the two transitive constructions are equally marked by prefixes *maN-* AV and *di-* PV, respectively, and there is no apparent difference in transitivity between the two. Furthermore, Wouk (1984) finds that in small corpus of narratives, AV and PV have similar frequencies: PV makes up 52% and AV 48% of transitive constructions.⁴ However, the voice systems in the languages in the sample—and in western Indonesia more generally—vary along several dimensions. In this section, we focus on two: (i) the marking of non-subject A arguments and (ii) (overt) voice morphology.

In regards to (i), Sundanese marks both AV and PV constructions with prefixes *N-* and *di-*, respectively, as in (2). However, the A argument in PV is most commonly marked by a preposition *ku* ‘by’, as in (2b).

(2) Sundanese, Voice alternations (Truong fieldnotes)

- a. Asep m-(b)euli baju.
A. AV-buy clothes
‘Asep bought clothes.’
- b. Baju di-beuli ku Asep.
clothes PV-buy by A.
‘Asep bought clothes.’

³ In examples where the first consonant of the root has been replaced by the homorganic nasal prefix, we include the underlying segment in parentheses for clarity, e.g. *m-(b)euli* for the A-oriented form of *beuli* ‘to buy’ in example (2a) below.

⁴ These percentages include only cases where the predicate was marked by *maN-* or *di-*.

On the surface these examples look to be an active-passive alternation, but there are syntactic properties (e.g. the ability for A to bind P arguments in PV; see Kurniawan 2013 and Kroeger & Riesberg 2023) as well as discourse properties (e.g. AV and PV have similar frequencies in discourse) that call such an analysis into question.

In regards to (ii), the PV in West Coast Bajau, for example, is not overtly marked by morphology, while AV is prefixed with *N-*, as in (3). Miller (2007), however, analyzes PV as being marked by a null prefix \emptyset .

(3) West Coast Bajau, Voice alternations (Miller 2007: 135–136)

- a. Azizy boi n-(s)embali sapi' e dilaw.
A. CMPL AV-slaughter cow DEM yesterday
'Azizy slaughtered the cow yesterday.'
- b. Boi \emptyset -sembali Azizy sapi' e dilaw.
CMPL PV-slaughter A. cow DEM yesterday
'Azizy slaughtered the cow yesterday.'

In Salako, PV is also unmarked when the non-subject A argument is realized, but it is marked with a proclitic *di=* when it is not realized.⁵ In the Nasal examples in (4), PV is unmarked when A is first or second person, as in (4a), and optionally marked with a dedicated prefix when A is third person, as in (4b).

(4) Nasal, PV marking (McDonnell fieldnotes)

- a. lahan ni kak khadu kam=suah.
field that PFV finish 1PL.EXCL.NSBJ=[PV]burn
'We already burned the field.'
- b. lahan ni kak khadu (di-)suah=nyo.
field that PFV finish PV-burn=3SG
'He already burned the field.'

Pendau shares similarities to Nasal with several additional layers of complexity. Pendau distinguishes two sets of voice prefixes, a realis set and an irrealis set. Additionally, there are irrealis PV constructions for first and second person non-subject A arguments, which appear in the preverbal position without a dedicated voice prefix (see Quick 2007: 374–375).

In Ampenan Sasak and Makasar, the situation is more extreme. In Ampenan Sasak, there still appears to be an opposition between A-oriented and P-oriented constructions, but the predicate is typically unmarked; it is only optionally marked by the AV prefix *N-* (see Khairunnisa 2022). Rather, transitive alternations are signaled through

⁵ The construction marked with *di=* is likely a separate passive construction, although Adelaar (2005) does not label it as such.

a combination of word order and the marking of A arguments. Consider the examples in (5).

(5) Ampenan Sasak, Transitive alternations (Khairunnisa & McDonnell in prep)

- a. Andi_i paléq(=ne_i) aku.
 A. chase(=3) 1SG
 'Andi chased me.'
- b. Aku siq=ne_i paléq siq Andi_i
 1SG AGT=3 chase AGT A.
 'Andi chased me.'

In the A-oriented construction in (5a), A occurs in the preverbal position with cross-referencing of an optional second position pronominal clitic and is considered the subject. P occurs post-verbally and is considered the non-subject argument. In the P-oriented construction in (5b), P is in the preverbal position and is considered the subject, while A occurs post-verbally and is marked with the agent marker *siq*. A is also cross-referenced on a second position pronominal clitic. In both constructions, the A argument is co-referential with a second position clitic that invariably expresses A. Since this alternation is not marked on the verb, voice may not be the most appropriate term, but functionally these constructions are analogous to AV and PV constructions in the other languages of the sample.⁶

Finally, Makasar has been described differently than the rest of the languages of the sample. According to Jukes (2013, 2020), Makasar has an unmarked, basic transitive clause alongside several marked constructions. In the basic transitive clause, the verb receives no verbal marking, but A and P arguments are indexed with pronominal clitics, as in (6).

(6) Makasar, Transitive construction

- ku=kanre=i taipa=nu
 1=eat=3 mango=2F.POSS
 'I eat your mangoes.'

Makasar additionally has a number of verbal prefixes that are analogous to voice prefixes in the other languages of the sample, although Jukes (2013) describes these prefixes as *valency-signaling* prefixes. These include two prefixes that are analogous to AV: *aN(N)*- and *aN*-. The formal differences between these prefixes is that *aN(N)*- triggers nasal substitution of the first consonant of the root, whereas *aN*- does not. *aN(N)*- marks a so-called semi-transitive clause where P is *not* indexed on the verb and may not be definite, as in (7).

⁶ Khairunnisa (2022) provides a more detailed description of the different properties of the second position clitic and the preverbal A or P argument.

- (7) Makasar, Semi-transitive construction (Jukes 2020: 257)

angng-(k)anre=a' taipa
 STR-eat=1 mango
 'I eat mangoes'

The prefix *aN-* marks Actor Focus, where A must occur in the preverbal position but is not indexed on the verb. Rather, P is indexed, as in (8). See Jukes (2020: 240–242) for further discussion of argument indexing in Makasar.

- (8) Makasar, Actor-focus construction (Jukes 2020: 269)

kongkong am-buno=i_i miong=ku_i
 dog AF-kill=3 cat=1.POSS
 'A dog killed my cat.'

Laskowske (2016) analyzes a closely related language, Bugis, as having a symmetrical voice system. Under this analysis, the basic transitive clause is a P-oriented construction, while the semi-transitive and Actor Focus constructions would be A-oriented constructions. It is not necessary in this chapter to decide whether a particular voice system is considered symmetrical, but it is helpful to see that while the languages in our sample have diverse systems for marking transitive constructions, there are clear similarities that allow for a more or less straightforward comparison.

In addition to transitive alternations in at least seven languages in the sample, many of the languages have a 'true passive' construction with the exception of Pendau and Toba Batak. The passive may have a dedicated affix, as in West Coast Bajau (*-in-*), Amepenán Sasak (*te-*), Makasar (*ni-*), and Salako (*di-*), or it may be marked with the PV prefix, as in Nasal and Sundanese. (See Chen & McDonnell 2019 for a discussion of the difficulties in teasing apart PV and passive constructions in languages that mark both constructions with the same affix).

Languages in the sample vary in terms of word order. With the exception of Ampenan Sasak and Makasar, the non-subject argument is typically adjacent to the verb, forming a constituent that we refer to as the *predicate complex*. The subject typically has a freer distribution and in these six languages it may occur before or after the predicate complex. However, each language has a preferred word order. Toba Batak, exemplified in (1), is typically subject-final, as is West Coast Bajau. However, in West Coast Bajau, PV clauses more typically have subject-final order, while AV clauses typically have subject-initial order (Miller 2007: 146–157). The other languages are predominately subject-initial, including Nasal, Pendau, Sundanese, and Salako. In Ampenan Sasak and Makasar there does not appear to be strong evidence for a predicate complex. Ampenan Sasak is predominately subject-initial. Makasar is canonically predicate-initial, although the order of NP arguments after the predicate in transitive clauses is apparently completely free.

Such arguments are indexed on the verb, and in cases where there are two third person arguments indexed with pronominal clitics, the order of NPs does not resolve any ambiguity (Jukes 2020: 231).

Finally, Pendau is unique in the sample as it has a number of *stem-former* prefixes. These prefixes, which have the shapes *pong-*, *po-*, *pe-*, and *popo-* (and allomorphs showing vowel harmony), have no semantic content of their own, but form an augmented stem which can then take voice, applicative, and other derivational prefixes (Quick 2007: 99–108). The use of stem-former prefixes is found in many Austronesian languages of the Philippines and Sulawesi (see e.g. the discussion of stem-formers in Himmelmann & Wolff 1999).

3 Applicative morphology

In this chapter, we generally follow Zuñiga & Creissels' (this volume) definition of applicative construction (AC) with the following key properties: (i) an AC is contrasted with a base construction (BC) in that an AC shows additional overt morphological marking, (ii) the applicative marker licenses an applied phrase (AppP) that expresses a non-agentive semantic role that either cannot be expressed in the BC or is expressed as an oblique phrase, and (iii) the participant encoded as A or S in the BC is encoded as A in the AC (if it is expressed).

Each language of the sample has from one to three verbal affixes that mark ACs, which are listed in Table 2. In two languages—West Coast Bajau and Ampenan Sasak—there is only one applicative suffix. The other six languages have at least two applicatives, each of which licenses AppPs with different semantic roles. One suffix licenses beneficiary and instrument AppPs and the other licenses goal and locative AppPs (with the exception of Salako, which does not appear to mark instrumental AppPs at all). However, for AppPs with other semantic roles such as stimulus or content, there is no such specialization in the morphology (see Section 7). In addition to two applicative suffixes, Sundanese makes use of a circumfix, *pang-* *-keun* that is used exclusively for substitutive benefactive constructions. We treat this form as a circumfix (as opposed to a separate prefix and a suffix) because it has a distinct semantic meaning that is not compositional, and it is extremely productive across verbal forms in Sundanese. Note that certain less productive ACs found in languages of the sample also require the use of a fossilized prefix or stem-forming prefix in addition to an applicative suffix (see Section 9 below).

Phonologically conditioned allomorphy is found for a number of these affixes. The Salako suffix *-AN* may show rounding of the vowel to [ɔ] (written as *à*) and/or preposition of the final nasal (written as *tn*) depending on the shape of the root (Adelaar 2005: 30–32). For this reason, Adelaar represents the applicative suffix as an abstract form written with capital letters. The vowels in Makasar *-ang* and *-i* coalesce with an iden-

tical stem-final vowel, which also triggers a shift from penultimate to final stress, e.g. *jappa+ang* → *jappáng* ‘walk with’ (Jukes 2020: 102). The vowel in West Coast Bajau *-an* harmonizes with preceding /o/ or /e/ in the stem. It also weakens after a stem-final vowel, coalescing with stem-final /o/, and being centralized to [ə] following stem-final /e/ (Miller 2007: 54). Both stem and affixal consonants may undergo assimilatory processes at a morpheme boundary. In Toba Batak, a sequence consisting of a morpheme-final stop, nasal or fricative and morpheme-initial /h/ is realized as a geminate stop, e.g. *di+dalan+hon* → *didalatton* ‘he carries out’ (Nababan 1981: 61). The Sundanese circumfix *pang-* *-keun* causes a voiceless obstruent (and sometimes /b/) in stem-initial position to become a nasal, as in *teundeun* ‘to place’ → *pang-neunduen-keun* ‘to place for s.o.’.

Table 2: Applicative suffixes by semantic role of AppP.

Language	Suffix	Semantic role			
		BEN	INST	GOAL	LOC
Toba Batak	<i>-hon</i>	✓	✓		
	<i>-i</i>			✓	✓
Nasal	<i>-kun</i>	✓	✓		
	<i>-i</i>			✓	✓
Sundanese	<i>-keun</i>	✓	✓		
	<i>-an</i>			✓	✓
	<i>pang- -keun</i>	✓			
Salako	<i>-AN</i>	✓			
	<i>-I?</i>			✓	✓
West Coast Bajau	<i>-an</i>	✓	✓	✓	✓
Ampenan Sasak	<i>-an</i>	✓		✓	✓
Pendau	<i>-a'</i>	✓	✓		
	<i>-i</i>			✓	✓
Makasar	<i>-ang</i>	✓	✓		
	<i>-i</i>			✓	✓

Applicatives in these languages are predominantly *optional* because the phrase corresponding to the AppP in a BC may be expressed as an oblique, most commonly with a prepositional phrase. In a few cases, however, the applicative is obligatory as there is no (monoclausal) equivalent BC. These exceptions are noted in the sections below. Throughout the paper, we are also concerned with the semantic participant expressed by the P argument in a BC, and its syntactic realization in the corresponding AC. We refer to this participant as the *companion phrase* to the AppP in describing the syntax of ACs. While this chapter is focused on ACs marked with the affixes described here, it is important to note that these morphemes are highly polyfunctional. Besides forming ACs and applicative lookalikes, they also form causative constructions, and function to derive transitive verbs from non-verbal bases. In a few languages of the

sample, they also form comparative constructions. For more on the non-applicative functions of applicative morphology in western Indonesian languages, see Truong & McDonnell (2022).

4 Beneficiaries and recipients

As mentioned in the previous section, all eight languages in our sample have an AC that licenses a beneficiary and/or recipient AppP. Descriptions of the languages in the sample do not distinguish between beneficiary and recipient, but the vast majority of examples from grammatical descriptions refer to recipients. Despite this, we follow the terminology of the descriptions of western Indonesian languages and refer to them as benefactive applicative/AC. In all but Sundanese, benefactive applicatives may only attach to a subset of transitive bases, including roots with the meanings ‘bring’, ‘take’, ‘make’, ‘buy’, ‘search’, ‘cook’. However, languages in the sample differ in their productivity across different roots. Consider the examples in (9) from Nasal with the suffix *-kun*. The BC is in (a), and the AC is in (b).

- (9) Nasal, Recipient AppP (McDonnell fieldnotes)
- a. Azma ny-(s)anik buwak (gin anak=nyo).
 A. AV-make snack for child=3sg
 ‘Azma made snacks for her children.’ (BC)
 - b. Azma ny-(s)anik-kun anak=nyo buwak.
 A. AV-make-APPL child=3sg snack
 ‘Azma made her children snacks.’ (AC)

In the BC, the recipient is expressed in an adjunct PP, which also occurs in Sundanese, Toba Batak, and West Coast Bajau. In Makasar and Salako, marking the recipient with a PP is only possible with an apparently borrowed preposition *untu’/untuk* ‘for’ from Indonesian. For Makasar, it is apparently only used by younger speakers of the language (Jukes 2020: 315). In Ampenan Sasak the oblique PP is possible with a preposition *umaq*, but it is apparently rare and has only come about in elicitation (Khairunnisa & McDonnell in prep). Finally, Quick (2007) does not report an oblique PP construction, and we did not find any instances of a preposition that would mark a recipient or beneficiary.

Sundanese differs from the other languages in the sample with two different benefactive applicatives: *-keun* and *pang- -keun*. The prior is much less productive as an applicative. It is restricted to a small number of the transitive bases, and licenses a recipient AppP, as in (10). It may also act as a causative, as in (11).

(10) Sundanese, Benefactive *-keun* (Hanafi 1997: 23)

- a. Udi m-(b)uka panto keur kuring.
 U. av-open door for 1SG
 'Udi opens the door for me.'
- b. Udi m-(b)uka-keun kuring panto
 U. AV-(b)uka-APPL 1SG door
 'Udi opens the door for me.'

(11) Sundanese, Causative *-keun* (Truong fieldnotes)

- a. Jandela peupeus.
 window break
 'The window breaks / is broken.' (BC)
- b. Abi m-(p)eupeus-keun jandela.
 1SG AV-break-CAUS window
 'I broke the window.' (Causative)

The benefactive applicative circumfix *pang- -keun* is much more productive, occurs with a wide-range of intransitive and transitive bases, and licenses a substitutive beneficiary AppP. However, when the *pang- -keun* benefactive applicative attaches to an intransitive base, such as *peupeus* 'break' in (11a), the AC is *not* monotransitive as we might expect. Instead, the construction is ditransitive, as in the example in (12).

(12) Sundanese, Beneficiary AppP (Truong fieldnotes)

- Euis di-pang-meupeus-keun kalapa ku abi.
 E. PV-APPL-break-APPL coconut by 1SG
 'I broke open a coconut for Euis.' (AC)

While the BC is intransitive, the AC is ditransitive and appears to have undergone both causativization *and* applicativization. One may think that the prefixal element of the circumfix *pang-* is a benefactive applicative, but this is not the case. The prefix *pang-* never occurs on its own as a benefactive applicative, and with transitive bases *pang- -keun* does not have a causative meaning. See examples in (13) below.

In all languages, the benefactive AC may be ditransitive. While few descriptions (i.e. Quick 2007, Miller 2007, Jukes 2013) discuss the core/oblique status of the beneficiary/recipient AppP and patient/theme companion phrase, both may be considered core since they are unmarked (i.e. not in a PP) in all eight languages.

Languages in the sample differ somewhat in how the benefactive AC interacts with voice. Seven of the eight languages allow benefactive applicatives in AV. Sundanese has a general constraint on ditransitive constructions, which must occur in PV for a majority of verbal bases. In the example in (13) below, the recipient is the subject and the theme is *balanjaan* 'shopping purchases'.

(13) Sundanese, Beneficiary AppP expressed as possessed NP (Truong fieldnotes)

- a. Icih ny-(c)okot duit.
 I. AV-take money
 'Icih took the money.' (BC)
- b. Indung di-pang-nyokot-keun balanja-an ku Udi.
 mother PV-APPL-take-APPL shopping-NMLZ by U.
 'Udi took the shopping purchases (in the house) for mother.' (AC)

When this construction occurs in AV, it is most often monotransitive with a theme or patient being selected as the P argument. If the beneficiary is overtly mentioned, it is most commonly expressed as the possessor of the theme or patient NP, which is shown in (14) below. Note that the beneficiary may also be unrealized when understood from context or overtly expressed as a PP (see Nasal examples in (20)–(21) below).

(14) Sundanese, Beneficiary AppP (Truong fieldnotes)

- Udi m-(p)ang-nyokot-keun balanja-an indung.
 U. AV-APPL-take-APPL shop-NMLZ mother
 'Udi took mother's shopping purchases (in the house for her).' (AC)

In examples like (14), the beneficiary is understood to be the same entity as that expressed by the possessor, likely resolved through pragmatic inference. While these possessive benefactive AC constructions are common cross-linguistically (Kittilä & Zúñiga 2010: 19–20), they have not been reported in other languages in our sample. They have been reported in at least one other western Indonesian language, Balantak (see van den Berg & Busenitz 2012: 100–101).

In AV constructions in Pendau, the recipient AppP and its companion phrase may occur in either post-verbal position, as in (15).

(15) Pendau, Recipient AppP (Quick 2007: 305)

- a. Nong-oli-a' io vea a'u.
 AV.RLS.SF.TR-buy-APPL 3SG rice 1SG
 'I bought him rice.' (AC)
- b. Nong-oli-a' vea io a'u.
 AV.RLS.SF.TR-buy-APPL rice 3SG 1SG
 'I bought him rice.' (AC)

In the remaining six languages in the sample, the recipient AppP occurs before the companion phrase in AV, as we saw in (9b).

The status of the beneficiary/recipient AppP in PV or passive constructions is not reported for Makasar, Toba Batak, or Salako. However, in the languages for which we can describe this property, the beneficiary/recipient AppP must be the subject, as in the examples from Nasal in (16) and West Coast Bajau in (17).

- (16) Nasal, Recipient AppP in PV
 anak=nyo di-sanik-kun Azma buwak.
 child=3SG PV-make-APPL A. snack
 'Azma made her children snacks.' (AC)
- (17) West Coast Bajau, Recipient AppP in PV and passive (Miller 2007: 278–280)
- a. Boi Ø-semwali emma'=ku kambing e ta' Saiman.
 CMPL PV-slaughter father=1SG.NSBJ goat DEM LOC S.
 'My father slaughtered the goat for Saiman.' (BC)
- b. Boi Ø-semwali-an emma'=ku Saiman kambing tu.
 CMPL PV-slaughter-APPL father=1SG.NSBJ S. goat DEM
 'My father slaughtered (for) Saiman the goat.' (AC)
- c. Saiman boi s<in>embali-an kambing le' emma'=ku.
 S. CMPL <PASS>slaughter-APPL goat LOC father=1SG.POSS
 '(For) Saiman was slaughtered a goat by my father.' (AC)

In both languages it does not appear to be possible for the patient companion phrase to be subject in either a PV or a passive construction (see Miller 2007: 280 for discussion of West Coast Bajau). In Pendau, either the AppP or the patient companion phrase may occur in the preverbal position, as in (18). In his description of these examples, Quick (2007: 291–292) states that the recipient AppP *io* 3SG is the subject whether it is in the preverbal subject position as in (18a) or the patient companion phrase is in the preverbal position as in (18b). It is unclear to us why this is the case.

- (18) Pendau, Recipient AppP in PV (Quick 2007: 292)
- a. io ni-po-gabu-a'='u vea
 3SG PV.RLS-ST.FA-cook-APPL=1SG.NSBJ raw.rice
 'I cooked rice for him/her.' (AC)
- b. vea ni-po-gabu-a'='u io
 raw.rice PV.RLS-ST.FA-cook-APPL=1SG.NSBJ 3SG
 'I cooked rice for him/her.' (Passive AC)

In Makasar, both arguments in transitive constructions are indexed on the verb, as in the BC in (19a). However, the maximum number of arguments indexed on the verb is two, and in ditransitive constructions, it is the A argument and the recipient that are indexed (Jukes 2020: 314–315). In the AC, the verb is suffixed with *-ang*, and the recipient/beneficiary AppP is indexed on the verb (but the patient/theme argument is not).

(19) Makasar, Recipient AppP (Jukes 2020: 314–315)

- a. ku=balli=i baju=a
1=buy=3 shirt=DEF
'I bought the shirt.' (BC)
- b. ku=balli-ang=ko baju.
1=buy-APPL=2FAM shirt
'I bought you a shirt.' (AC)

As mentioned in Section 2, arguments of the verb are commonly unrealized in the languages of the sample. In benefactive ACs, it is possible—and even common in the case of Ampenan Sasak—for the beneficiary/recipient AppP to be unrealized (Khairunnisa & McDonnell in prep). In such cases the benefactive meaning is still present in the clause. Consider the Nasal example in (20). Sundanese is the only other language that we know of where this is possible, the remaining five languages do not report this possibility.

(20) Nasal, Unrealized recipient AppP (McDonnell fieldnotes)

- Azma ny-(s)anik-kun buwak.
- A. AV-make-APPL snack
'Azma made snacks (for them).' (AC)

In Nasal and Sundanese benefactive ACs, it is possible for the beneficiary/recipient AppP to occur as an oblique PP even though the verb is suffixed with the benefactive applicative, as in Nasal in (21).

(21) Nasal, PP Recipient AppP (McDonnell fieldnotes)

- Azma ny-(s)anik-kun buwak gin anak=nyo.
- A. AV-make-APPL snack for child=3SG
'Azma made snacks for her child.' (AC)

Thus, it is possible for the beneficiary to occur in a PP with an applicative suffix on the verb, as in (21), or without an applicative suffix, as in (9a). In some sense, the double marking of the applicative and the preposition may call into question the applicative function of the suffix in such constructions. However, if the recipient argument is unmarked, the applicative suffix must be present, as in (9b), and if the applicative suffix is present but the recipient is unrealized, the AC must be interpreted as benefactive, as in (20).⁷ Taken together these properties provide evidence that these affixes indeed mark ACs.

⁷ Analogous constructions have been described at length in Standard Indonesian (see e.g. Cole & Son 2004).

5 Instruments and themes

Six of eight languages in our sample have an AC that licenses an instrument AppP: Toba Batak, Nasal, West Coast Bajau, Sundanese, Pendau, and Makasar. In all six languages in which instrumental ACs are attested, the applicative suffix used is the same as the one that licenses a beneficiary/recipient AppP.⁸ Instrumental ACs are not reported for Salako or Ampenan Sasak. The base verb in an instrumental AC is commonly transitive. Examples with base verbs meaning ‘to hit’, ‘to strike’, ‘to chop’, and ‘to buy’ are frequently found, but also attested are ‘to spear’, ‘to shoot’, ‘to scoop up’, ‘to pay for’, ‘to write’, ‘to make’, and ‘to kill’. Two examples are given below.

(22) Sundanese, Instrument AppP (Truong fieldnotes)

- a. Udi ny-(c)oel sambel maké témpé.
U. AV-scoop chili.sauce AV.use soybean.cake
‘Udi scooped up chili sauce using (a piece of) soybean cake.’ (BC)
- b. Udi ny-(c)oel-keun témpé kana sambel.
U. AV-scoop-APPL soybean.cake onto chili.sauce
‘Udi used (a piece of) soybean cake to scoop up chili sauce.’ (AC)

(23) Toba Batak, Instrument AppP (van der Tuuk 1971 [1864–1867]: 103)

- a. mangombak tanggurung ni horbo dohot indalu
AV.strike back of buffalo with rice.pestle
‘to strike the back of a buffalo with a rice pounder’ (BC)
- b. mangombak-kon indalu tu tanggurung ni horbo
AV.strike-APPL rice.pestle onto back of buffalo
‘to strike a rice pounder on the back of a buffalo’ (AC)

As seen in these examples, the companion phrase for an instrument AppP is typically a patient or goal (i.e., an endpoint of directed motion). In BCs, this patient/goal participant is the P argument. The instrument is realized as an oblique PP or adverbial phrase, if it is expressed.⁹ In Nasal, West Coast Bajau, and Toba Batak, it appears that instrumental ACs are exclusively monotransitive. Sundanese follows the same pattern with a single exception; when *-keun* is suffixed to *beuli* ‘buy’ the AC is ditransitive. As seen in the AC examples above, the instrument AppP is an unmarked core argument and the companion phrase is expressed as an oblique PP. Following Zúñiga & Kittilä (2019), we refer to these as *remapping* ACs because the companion phrase shows a change in coding compared to the BC.

⁸ In Sundanese, the *-keun* suffix marks instrumental ACs as well as benefactive ACs with certain verbs.

⁹ Instruments may also be expressed as the complement of the verb meaning ‘to use, to wear’, e.g. Sundanese *maké*. In some languages, this verb appears to be grammaticalized as a preposition.

In Pendau, all instrumental ACs are ditransitive and are only found in PV. In such constructions, the instrument AppP and the companion phrase are both considered core arguments, as in (24).

(24) Pendau, Instrument AppP (Quick 2007: 297–298)

- a. *Paee ro-sunung nijimo nu=uram.*
 rice PV.IRR-burn 3PL.NSUBJ INSTR=medicine
 ‘They burned (or smoked) the rice with medicine (for medicinal purposes).’
 (BC)
- b. *Uram ro-po-sunun-a’ nijimo paee*
 medicine PV.IRR-SF.INSTR-burn-APPL 3PL.NSUBJ rice
 ‘They burned (or smoked) the rice with medicine (for medicinal purposes).’
 (AC)

In the BC in (24a), the patient argument *paee* ‘rice’ is the subject. The instrument *uram* ‘medicine’ is expressed with the genitive case marker *nu=*, which also marks instruments. In the AC in (24b), the instrument AppP is the subject and the patient companion phrase is a postverbal core argument. The companion phrase does not receive any marking, which suggests that it is not oblique. In Makasar, it also appears that instrumental ACs are ditransitive (see Jukes 2020: 315–316), as in (25).

(25) Makasar, Instrument AppP (Jukes 2020: 316)

- anjo selek=a na=buno-ang=i bali=a*
 that kris=DEF 3=kill-APPL=3 enemy=DEF
 ‘He killed the enemy with that kris. (AC)’

In languages with instrumental ACs, it is not reported whether the instrument AppP has a special pragmatic status. However, in Sundanese, we find that the instrumental AC is preferred over the BC if the instrument represents salient or unexpected information; this is especially the case in PV, where the instrument AppP is the subject (see further discussion of the realization of AppPs as subject in Section 10 below).

In five of the six languages that have instrumental ACs—Toba Batak, Nasal, West Coast Bajau, Sundanese, and Makasar—the same applicative marker can also license a theme AppP, i.e. an entity which changes location in a directed motion event. No clear examples of theme AppPs are found in Salako, Pendau, and Ampenan Sasak (however, see the discussion below in Section 7, where the product of a bodily function verb may be considered a theme).

Instrument AppPs in these languages share semantic characteristics with themes, because instruments used for chopping, hitting, and similar actions are directed along a path of motion (see also Kroeger 2007). However, we note that this is not true for all bases; in ACs formed with verbs like ‘buy’ the instrument AppP (typically some type of currency) is not necessarily in motion. In these languages, we find multiple types of

constructions in which applicative marking coincides with a theme AppP. These are discussed below according to properties of the base verb. First, theme AppPs are found in ACs with transitive bases that describe an action of directed motion, e.g. ‘to pelt/throw (at)’, ‘to spray (at)’, ‘to shoot (at)’. The companion phrase in these cases is a goal which is expressed as the P argument of the BC. The theme in a BC is an oblique if it is expressed. ACs in which a theme is selected as an AppP are monotransitive and considered remapping, with the companion phrase expressed as an oblique PP. An example from West Coast Bajau is given in (26) with the verb *seput* ‘spray’. In the BC in (26a) the goal *using e* ‘the cat’ is the P argument, and no theme argument is expressed. In the AC in (26b), the theme *dalit* ‘venom’ is the AppP and is realized as core argument, while the goal companion phrase is expressed as an oblique PP with the locative preposition *ta’*.

(26) West Coast Bajau, Theme AppP (Miller 2007: 290)

- a. Using e ai Ø-seput soo dilaw.
 cat DEM PFV PV-spray snake yesterday
 ‘A snake sprayed the cat (with venom) yesterday.’ (BC)
- b. Ai Ø-seput-an soo dalit ta’ using e
 PFV PV-spray-APPL snake venom LOC cat DEM
 ‘A snake sprayed venom at the cat.’ (AC)

Van der Tuuk (1971 [1864–1867]: 104) describes a similar alternation in Toba Batak for verbs *mamodil* ‘to shoot with a gun (AV)’ and *mangultop* ‘to shoot with a blowpipe (AV)’. In both cases, the goal (i.e. the target of the shot) is the P argument. When suffixed with the applicative *-hon*, the AppP of “*mamodilhon* is the bullet or that which acts as such, as, for example, *inal* [‘wooden rod for shooting at birds’]”, and the AppP of “*mangultopon* is the arrow (*nakkat*)” (van der Tuuk 1971 [1864–1867]: 104). Van der Tuuk goes on to state that the AppP with these same verbs may be the instrument, i.e. a blowpipe and gun, respectively. The companion phrase in these ACs is the goal.

Second, theme AppPs are found in ACs with base verbs that describe an act of locomotion. Such ACs are found in Toba Batak and West Coast Bajau. In this type of AC, the theme is semantically similar to a comitative or causand. The base verb in such ACs may be intransitive or transitive, as illustrated below.

If the base verb is an intransitive locomotion verb, the AC is monotransitive, and the theme AppP is licensed as a core argument. For example, in Toba Batak, the verb suffixed with the applicative *makkabakkon* means ‘to fly away with (s.t.)’ and takes as a core argument the entity that is flown with (van der Tuuk 1971 [1864–1867]: 1977). This verb is formed by the addition of the AV prefix *maN-* and the applicative *-hon* to the intransitive verb root *habang* ‘to fly’.

If the base verb is transitive, the AC is monotransitive and considered remapping, with the theme AppP realized as a core argument and the companion phrase (a goal or path) expressed as an oblique PP. Examples are given from West Coast Bajau in (27) and (28).

(27) West Coast Bajau, Theme AppP (Miller 2007: 238)

- a. Aku boi n-(s)embet Azizy engko' surat.
 1SG CMPL AV-chase A. with letter
 'I chased Azizy with the letter.'
- b. Aku boi n-(s)embet-en surat e ta' Azizy.
 1SG CMPL AV-chase-APPL letter DEM loc A.
 'I rushed the letter to Azizy.'

(28) a. West Coast Bajau, Theme App (Miller 2007: 237)

- Ai Ø-keta Pirik suang e.
 PERF PV-cross P. river DEM
 'Pirik crossed the river.'
- b. Ai Ø-keta-an Pirik using e pe dembila' suang.
 PERF PV-CROSS-APPL P. cat DEM to.there across river
 'Pirik carried the cat across the river.'

Note that in (27b) the AppP, *surat e* 'the letter', is semantically similar to a comitative or causand. The meaning of (27b) is similar to 'I chased Azizy *with the letter*' or 'I caused *the letter* to chase Azizy.' Likewise in (28b), the AppP, *using e* 'the cat', is semantically similar to a comitative or causand. In the situation described in (28b), the agent crosses the river together with the cat and in doing so causes the cat to cross the river.

Third, the applicative suffix is also found on bases that normally select a theme as the P argument when the verb is unsuffixed. Thus, there is no change in the participant selected as P in the marked construction, however there is usually a semantic emphasis on the event as an act of directed motion. This type of construction is found with certain verbs of transfer in Sundanese, West Coast Bajau, Toba Batak, and Makasar e.g. 'send/send to', 'to give', 'to push'. For instance, with the Sundanese verb *surung* 'push', both the unaffixed form and the form suffixed with *-keun* take a theme as P. However, the applicative verb is only used if the event described is an act of directed motion. Consider the example in (29).

(29) Sundanese, Directed motion construction with *-keun* (Truong fieldnotes)

- a. Keur abi ulin ka lapang aya Pak Haji keur ny-(s)urung roda.
 while 1SG play to field exist mister Haji while AV-push cart
 'When I was playing at the field, Pak Haji was there pushing his cart.'
 (unmarked)
- b. Udi tos ny-(s)urung-keun mobil ka imah.
 U. already AV-push-APPL car to house
 'Udi is done pushing the car to the house (i.e. it is now at the house).' (marked)

In (29a), the unsuffixed verb *nyurung* is used because the act described does not direct the theme towards some endpoint.¹⁰ In (29b), the verb suffixed with *-keun* is used because the event represents an act of directed motion. The completive marker *tos* can only be used with this verb if the theme has already undergone the intended change in location. A similar example is given by van der Tuuk for the Toba Batak verb *tongos* ‘to send’. This verb may take a theme (e.g. *sorat* ‘letter’) as a core argument whether or not it bears the applicative suffix *-hon*, but the suffixed verb is preferred when directed motion is emphasized and a recipient or goal “is either stated or in the mind of the speaker” (van der Tuuk 1971 [1864–1867]: 104).

6 Goals, locations, and addressees

The applicative affix that licenses goals, locations, and addressees in the majority of languages differs from those that license the semantic roles discussed thus far (i.e. instruments, themes, beneficiaries, recipients). We refer to these as goal ACs. The only exceptions are West Coast Bajau and Ampenan Sasak, both of which have a single applicative suffix *-an*. Goal ACs occur on intransitive and transitive bases in seven of the eight languages. In Makasar, the goal applicative *-i* appears to only attach to intransitive bases, but Jukes (2020) does not explicitly state this restriction. Common intransitive bases to which the goal applicative attaches include some activity verbs (e.g. ‘swim’, ‘jump’), posture verbs (e.g. ‘sit’, ‘stand’), bodily function verbs (e.g. ‘cough’, ‘vomit’), and verbs of speaking among others. For all languages except for Makasar, transitive verbs include ‘put’, ‘pour’, ‘plant’, ‘teach’, and ‘pay’. Consider the examples from West Coast Bajau in (30)–(32).¹¹

(30) West Coast Bajau, Locative AppP (Miller 2007: 283)

- a. Sesok e ai pe-rekot ta' jing.
 house.lizard DEM PFV INTR-stick LOC zinc
 ‘The house lizard has stuck to the zinc.’ (BC)
- b. Ai Ø-rekot-on sesok jing e.
 PFV PV-stick-APPL house.lizard zinc DEM
 ‘The house lizard has stuck to the zinc.’ (AC)

¹⁰ The term *Pak Haji* refers to a distinguished man who has completed a religious pilgrimage.

¹¹ Miller (2007: 283) states that the suffix *-an* applies “vacuously” and is optional in the BC without any change in the argument or oblique (see Section 8 for discussion). Thus, in (31a), it is possible to use the *-an* suffix without any change in argument structure. However, in (31b), the ditransitive construction requires the applicative suffix *-an*.

(31) West Coast Bajau, Goal AppP (Miller 2007: 285, slightly modified)

- a. Ai Ø-enna'(-an)=ni gula' diam kupi'.
 PFV PV-place-APPL=3SG.NSBJ sugar inside coffee
 '(S)he put sugar in the coffee.' (BC)
- b. Ai Ø-enna'-an=ni kupi' e gula'.
 PFV PV-place-APPL=3SG.NSBJ coffee DEM sugar
 '(S)he put sugar in the coffee.' (AC)

(32) West Coast Bajau, Addressee AppP (Miller 2007: 286)

- a. "Buat-in do' aku bue' susu, too' bana kelong=ku
 make-PV.IMP EMPH 1SG water milk dry very throat=1SG.NSUBJ
 tu," Ø-bara'=ni m-aku.
 DEM PV-tell=3SG.NSBJ LOC-1SG
 "Make me some milk, I am very thirsty," she said to me.' (BC)
- b. Bila teko me-ruma' bara-an=ni emma'=ni
 when arrive LOC-house PV-tell-APPL=3SG.NSBJ father=3SG.POSS
 uun jomo mu' lawa' bana.
 exist person there beautiful very
 'When she arrived home, she told her father that there was a very handsome man there.' (AC)

In these examples, the locative in (30), goal in (31), and addressee in (32) are expressed in oblique PPs in the BC, but as the AppP, they are unmarked core arguments in the AC. In West Coast Bajau, the goal AC shows an increase in transitivity in each case compared to the BC. In Nasal, transitivity increases when the applicative attaches to intransitive bases and a limited number of transitive bases. Compare the examples of the transitive base *ajakh* 'teach' in (33) to *takhuk* 'plant' (34).

(33) Nasal, Goal AppP, valence-increasing AC (McDonnell fieldnotes)

- a. yo agi ng-ajakh baso Nasal khan anak=ku.
 3SG PROG AV-teach language Nasal with child=1SG.POSS
 'I am teaching Nasal to my child.' (BC)
- b. yo agi ng-ajakh-i anak=ku baso Nasal.
 3SG PROG AV-teach-APPL child=1SG.POSS language Nasal
 'I am teaching my child Nasal.' (AC)

(34) Nasal, Locative AppP, remapping AC (McDonnell fieldnotes)

- a. be-bibai-an n-(t)akhuk jagung di sawah.
 DISTR-woman-DISTR AV-plant corn LOC rice.paddy
 'The women planted corn in the rice paddy.' (BC)

- b. be-bibai-an n-(t)akhuk-i sawah khan jagung.
 DISTR-woman-DISTR AV-plant-APPL rice.paddy with corn
 'The women planted corn in the rice paddy.' (AC)

In the BC in (33a), P expresses what is being taught, while the goal companion phrase (i.e. the person being taught) is an oblique PP. In the AC, both the goal and the companion phrase are unmarked and the construction is ditransitive.

In the BC in (34a), P is expressed as a core argument and the location companion phrase (if it is expressed) occurs in an oblique PP. In the goal AC in (34b), the locative is expressed as an unmarked core argument while the companion phrase (if it is expressed) occurs in an oblique PP. Sundanese goal ACs are similar to Nasal. Some transitive bases result in a ditransitive AC, while others are considered remapping. However, it is unclear how transitive bases pattern when suffixed with a goal applicative in Salako and Toba Batak.

Pendau behaves similarly to West Coast Bajau in increasing transitivity in all goal ACs with the additional complication that the goal applicative suffix *-i* only increases the transitivity of transitive bases when it co-occurs with a stem-former prefix, which was mentioned in Section 2. The AC in (35) requires both the stem-former and the goal applicative *-i*.

(35) Pendau, Locative AppP with stem-former (Quick 2007: 301)

- a. bau 'uo ni-alap ni=kai ri=payangan.
 fish yonder PV.RLS-take PN=grandfather LOC=boat
 'The grandfather took the fish in the boat.' (BC)
- b. payangan ni-pong-alap-i ni=kai bau 'uo
 boat PV.RLS-SF.TR-take-APPL PN=grandfather fish yonder
 'The grandfather took the fish in the boat.' (AC)

Another exceptional example is found in Pendau where the AppP in goal ACs may also occur in a PP. According to Quick (2007: 300), this PP can even be the subject, evidenced by its preverbal position in (36).

(36) Pendau, Locative AppP in PP (Quick 2007: 300)

- ri=bongkarong='u ni-pong-soput-i='u
 LOC=hut=1SG.POSS PV.RLS-SF.TR-shoot-APPL=1SG.NSBJ
 'I shot (it) at/beside my hut.' (AC)

7 Other applied arguments

When applicative suffixes attach to intransitive bases, they often licence a P argument that takes on various semantic roles. Such transitivizing ACs are common across all eight languages. In many cases, there is no clear monoclausal BC equivalent. To express the same semantic role in a BC, a subordinate clause or parallel clause often must be used.

With bases that describe acts of speaking and cognition, an applicative suffix commonly licenses a content AppP that is realized as the P argument. The referent of the AppP may be a topic, proposition, or reported speech. An example is given from Sundanese with the verb *carios* ‘talk’ in (37) below. Other examples include Toba Batak *mang-hata-hon* ‘to talk about’ from *hata* ‘word, talk’ (see Schachter 1984: 103) and Sasak *pikir-an* ‘to think about’ from *pikir* ‘to think’ (Khairunnisa & McDonnell in prep).

(37) Sundanese, Content AppP (Truong fieldnotes)

- a. Abi ny-(c)arios ka mama, “Ma, abi hoyong miliarian damel.”
1SG AV-talk to mother mom 1SG want AV.look.ITER work
‘I said to my mother, “Ma, I want to look for work.”’ (BC)
- b. Hayang urang kempel ny-(c)arios-keun pa-damel-an.
let 1PL gather AV.talk-APPL NMLZ-work- NMLZ
‘Let’s meet up and talk about the job.’ (AC)

A number of languages also show an applicative alternation with the verb meaning ‘to tell (a story)’. This is found in Salako, where *ba-curitā* means ‘to tell (intr.)’ but *ny-(c)uritā-?àtn* means ‘to tell (s.t.)’, and also in Sundanese, i.e. *ny-(c)arita* ‘to tell a story’ cf. *ny-(c)arita-keun* ‘to tell (s.t.)’, to tell about (s.t.)’. A similar derived verb is found in Makasar, i.e. *pau-ang* ‘to tell (s.t.)’ from *pau* ‘story’.

With verbs describing emotional states or responses, applicative suffixes commonly license a stimulus AppP that is realized as the P argument. This is found in Toba Batak, Nasal, Sundanese, Sasak, Pendau and Salako. In corresponding BCs in these languages, the stimulus may be realized as an oblique PP, as in the Salako example in (38) but in some cases there is no monoclausal equivalent to the AC as in the Sasak example in (39).

(38) Salako, Stimulus AppP (Adelaar 2005: 92)

- a. Berà sidi ià ka Ne? Kulup.
angry very 3 LOC PN K.
‘He was extremely angry at Kulup.’ (BC)
- b. Tarutama bapa?=e karas sidi m-(b)era-i? ià. . .
especially father-3.POSS hard very AV-angry-APPL 3
‘Especially his father got very angry at him. . .’ (AC) (Adelaar 2005: 86)

(39) Sasak, Stimulus AppP (Khairunnisa & McDonnell in prep)

- a. Ie takut.
3.SG afraid
'(S)he is afraid.' (BC)
- b. Ie takut-an berarak.
3.SG afraid-APPL spider
'(S)he is afraid of spiders.' (AC)

In Toba Batak, emotion verbs in this type of AC take the fossilized prefix *ha-* in addition to the applicative suffix *-i* on the verb as in *ma-tahut* 'to be afraid' > *mak-ka-tahut-i* 'to be afraid of (s.t.)' (van der Tuuk 1971 [1864–1867]: 134). In Sundanese, similar constructions require the use of the prefix *CVng-* (partial reduplication) which also indicates greater intensity, as in (40) below.

(40) Sundanese Stimulus AppP (Truong fieldnotes, based on Hanafi 1997: 22)

- a. Mariam ceurik lantaran indung=na maot.
M. cry because mother=3SG.POSS die
'Mariam cried because her mother died.' (BC)
- b. Mariam ny-(c)eung-ceurik-an indung=na.
M. AV-RDP-cry-APPL mother=3S.POSS
'Mariam cried intensely about her mother.' (AC)

In Sundanese, Makasar and Sasak, an applicative suffix licenses a P argument with intransitive base verbs describing bodily processes. Examples include Sasak *batok-an* 'to cough up (s.t.)' from *batok* 'to cough', Sundanese *utah-keun* 'to throw up (s.t.)' from *utah* 'to vomit', and Makassar *nata'-me-áng=i cera'* 'he is pissing blood' cf. *at-ta'-mea=i* 'he is urinating'. In such cases the AppP may be considered a type of theme. An example of an intransitive BC and a transitive AC with a bodily function verb is given below.

(41) Sundanese, AC with bodily function verb (Truong fieldnotes)

- a. Icih utah.
I. vomit
'Icih vomited.' (BC)
- b. Icih ng-utah-keun udang=na
I. AV-vomit-APPL shrimp=DEF
'Icih vomited up the shrimp.' (AC)

Applicative suffixes are also found on intransitive verbs of perception. For example, in Toba Batak, the intransitive verb *marnangi* means 'to have ears, to be able to hear' and the transitive applicative verb *manangikan* means 'to hear (s.t.), to listen to (s.t.)' (Van der Tuuk 1977:101). Van der Tuuk writes that the AppP of *manangihon* "is something to/for which one listens in order to catch it, either a distant sound, or a word

towards which one directs one's hearing" (1977:101). See Section 8 below for discussion of applicative suffixes used with an intensifying effect on transitive verbs of perception.

Van der Tuuk (1971 [1864–1867]: 103) also reports that Toba Batak *-hon* may license a P argument expressing a reason but does not give clear examples showing the clausal syntax of such constructions. However, ACs where the AppP expresses a reason are attested elsewhere in the region, as is the case in *Tukang Besi* (Donohue 1999) and *Bal-atank* (van den Berg & Busenitz 2012).

8 Morphological lookalikes

In western Indonesian languages we also find various cases in which the verb is marked with an applicative suffix, but no syntactic alternation or valency modulation can be identified in comparison to unmarked forms of the verb.

First, a number of verb roots only occur with an applicative suffix in predicative use. For instance, in West Coast Bajau the verb *sepak-an* means 'to kick (s.t.) backwards' but there is no non-suffixed predicate **sepak*, and *leba-an* means 'to set (s.t.) down' but there is no predicate **leba* (Miller 2007: 293). The Sundanese verb *alung-keun* means 'to throw (s.t.)', but there is no non-suffixed predicate **alung* (at least in some varieties). In these cases, which appear to result from lexicalization of root + affix, a theme participant is selected as P, and directed motion is part of the semantic meaning of the suffixed verb. Quick (2007: 288–289) writes that the Pendau verb *bagi* 'to give' does not occur without an applicative suffix. Quick shows that *bagi-i* with the goal applicative *-i* selects the theme as the subject in PV and the recipient as an additional core argument, while *bagi-a'* with the benefactive applicative *-a'* selects the recipient as the subject in PV and theme as an additional core argument.

Second, we find sets of related clauses in which the marked and unmarked clauses show no difference in argument structure or modulation in valency but instead some purely semantic difference in aspect, manner, or characteristics of the P argument.

The suffix that otherwise marks goal and locative ACs can indicate repeated, iterative, habitual or pluractional aspect without any change in argument structure. Aspectual effects of this type are found with Toba Batak *-i*, Salako *-i?*, Nasal *-i* and Sundanese *-an* (van der Tuuk 1971 [1864–1867]: 99–100, Adelaar 2005: 49–50). Aspectual effects are also attested in Makasar with *-i*, though this use is "most likely no longer productive" (Jukes 2020: 306).

Applicative suffixes can also mark intensive or careful action. This is found with transitive verbs of perception as in Salako *nanang-an* 'to watch, to look at (AV)' cf. *nanang* 'to see (AV)' (Adelaar 2005). In Toba Batak, *-hon* may be used without a change of argument structure but only intensive/emphatic meaning. Thus *pasak* means 'beat', and *pasak-kon* may mean 'beat with s.t.' (instrumental applicative function) or 'do beat s.t.' (intensive/emphatic function) (Nababan 1981: 70).

With certain verbs in Sundanese, the suffix *-keun* is associated with individuation or specificity of P. In the example given below, both *melak* and *melakkeun* mean ‘to plant’ and select the thing planted as the P argument. In (42a) the unsuffixed verb is used when the planting of rice is described in general. On the other hand, in (42b), the suffixed verb is used because the clause refers to planting of a more individuated referent, in this case, rice seeds which have been prepared by the farmer ahead of time.

- (42) Sundanese, Higher individuation of P (Truong fieldnotes, based on Kustian n.d.)
- a. M-(p)elak paré ayeuna mah di sawah, di-sebut=na ny-(s)awah
 AV-plant rice now PRT in rice.field PV-call=3SG AV-rice.field
 ‘Now planting rice in a paddy is called *nyawah* (making paddies).’
 - b. Saméméh m-(p)acul ilaharna patani sok sa-sadia-an binih
 before AV-hoe usually farmer go.ahead RDP-ready-CAUS seed
 paré heula. M-(p)elak-keun binih paré (gabah) di-sebut=na
 rice first AV-plant-APPL seed rice rice.grain PV-call=3SG
 tebar.
 make.rice.seedling
 ‘Before tilling the ground usually the farmer prepares rice seeds first. Planting the rice seeds (grains of rice) is called *tebar* (making rice seedlings).’

In Makasar, the verb *sare* ‘give’ is a ditransitive verb that takes three arguments. When the unsuffixed form of this verb is used, the theme is always indefinite, is not indexed on the verb, and may not be unexpressed; an example is shown in (43a) below. When the applicative suffix *-ang* is added to *sare*, the mapping of participant roles does not change; however there is a semantic difference in that the theme is definite; this is shown in (43b) below. There may also be a difference in syntactic properties of the theme argument, as it may now be unexpressed.

- (43) Makasar, Change in definiteness of the theme (Jukes 2020: 254)
- a. La=ku=sare=ko doe’
 FUT=1SG=give=2SG money
 ‘I’ll give you some money.’
 - b. La=ku=saré-ang=ko doek=ku
 FUT=1SG=give-APPL=2SG money=1SG.POSS
 ‘I’ll give you my money.’

A similar semantic effect is found in West Coast Bajau. The suffix *-an* is found on many bivalent and trivalent verbs in AV without a change in argument structure. Miller (2007: 293) analyses this by noting that “when the *-an*₁ suffix does occur, a specific/referential argument and/or a particular event is involved.”

Finally, lexicalized changes in verbal meaning are also frequently attested. For example, the Sundanese verb *béré* means ‘give’, while *béré-keun* means ‘to hand over’. For further examples and discussion of the semantic functions of applicative suffixes in western Indonesian languages see Truong & McDonnell (2022).

9 Applicatives combining with causatives and other affixes

In western Indonesian languages, causative constructions are typically formed by use of verbal prefixes and/or by use of the same verbal suffixes that mark applicatives. Productive causative prefixes are found in Toba Batak, Makasar and Pendau. In the first two of these three languages, causative prefixes may combine with applicative suffixes. However, in Pendau, it does not appear that causative prefixes freely combine with applicative suffixes.¹²

In Toba Batak, Van der Tuuk (1977:130) gives examples of verbs formed on transitive bases with *pa-* and *-hon* where it appears that *-hon* licenses a theme AppP, while *pa-* introduces a causer argument. Examples include *pa-pahat-ton* ‘to give (s.t.) to animals to eat’ from *pahan* ‘to eat’ and *pa-djudjuk-kon* ‘to give (s.t.) to someone to carry on the head’ from *djudjung* ‘to carry on one’s head’. However, note that *-hon* is also required to appear on certain other causative verbs formed with *pa-* in AV. These appear to be formed on intransitive or stative bases, and in such cases, the use of *-hon* does not have any licensing effect, e.g. *jóngjong* ‘to stand’ → *pa-jóngjong* ‘to make to stand (up), PV’ / *pa-jóngok-kon* ‘to make to stand (up), AV’ (Nababan 1981: 103).

In Makasar, the causative prefix *pa-* combines with both applicative suffixes *-ang* and *-i*. In some cases the applicative suffix licenses an additional definite argument, as shown in (44) below.

(44) Makasar, Causative + applicative (Jukes 2020: 290, 296)

- a. ku=pa-kanre=i bembe
1=CAUS-eat=3 goat
‘I made/let him eat goat (meat).’
- b. ku=pa-kanre-ang=i bembe=a
1=CAUS-eat-APPL=3 goat=DEF
‘I made/let him eat the goat.’

¹² However, see Quick (2007: 284) for one example in which *pa-* is analyzed as both a causative marker and a stem forming prefix when used with the applicative suffix *-a*’.

In other cases, it is difficult to tease apart the functions of the causative prefix and applicative suffix (see Jukes 2020: 295–297). Similar constructions are also found with the prefix *pi-* and the applicative suffixes in Makasar. The prefix *pi-* has a variety of functions; it forms causative constructions and “derives forms with meanings like ‘(examine/inspect/listen) carefully or intently’” (Jukes 2020: 299).

In all eight languages one or both applicative suffixes also forms causative constructions. The only applicative suffixes for which a causative function is not attested in the languages of the sample are Makasar *-ang* and Salako *-AN*. When the same suffix has both causative and applicative functions, the distribution of functions is largely determined by syntactic and semantic properties of the base. The use of such suffixes with stative base verbs and most intransitive dynamic base verbs commonly results in only the licensing of a causer argument. With transitive bases, and intransitive bases of certain semantic subclasses (e.g. speech, perception, emotion as described in the previous section), the use of such suffixes commonly results in the licensing of a non-A AppP. Additionally, with certain bases, a single suffix can apparently license both a causer and an AppP that is not a causand. An example is given from Sundanese in (45).

(45) Sundanese, Portmanteau use of *-an* (Truong fieldnotes)

- a. Cai hujan ng-(k)ucur=na ka solokan.
water rain AV-flow=3SG to gutter
‘Rain water flows to the gutter.’
- b. Icih ng-(k)ucur-keun cai kana gelas.
I. AV-flow-CAUS water into glass.
‘Icih poured water into a glass.’
- c. Gelas di-kucur-an cai ku Icih.
glass PV-flow-CAUS/APPL water by I.
‘The glass had water poured into it by Icih.’

Example (45a) shows that the base verb *kucur* ‘flow’ is intransitive without any suffix and takes a single S argument, *cai hujan* ‘rain water’. In example (45b), *-keun* has a causative function with *kucur*; the verb *ng-(k)ucur-keun* takes an A argument that expresses the causer *Icih*, and a P argument that expresses the causand *cai* ‘water’. On the other hand, in example (45c), the suffix *-an* with *kucur* has both a causative and applicative function. It licenses a goal AppP *gelas* ‘drinking cup’ realized as the subject, while the causand *cai* ‘water’ is realized as a core argument. In some languages, the licensing of a stimulus AppP with a base verb of perception or emotional states requires both an applicative suffix and another prefix. This was noted earlier for Toba Batak *ha-*, a fossilized prefix of unclear function, and Sundanese *CVng-*, an intensifier or simulfactive marker (see also the discussion of Makasar *pi-* in experiencer-oriented constructions above).

10 Applicatives and voice

ACs in the languages in the sample show few syntactic restrictions when combining with AV, PV, and passive voice morphology. In fact, throughout this chapter we have provided examples where the benefactive, instrumental, theme, and goal ACs occur in both AV and PV constructions in various languages. Even in Makasar, which has been described to have an asymmetrical voice system, applicative suffixes combine with the actor focus *aN*- and semi-transitive prefix *aN(N)*- (see Jukes 2020: 306). Furthermore, ACs freely combine with passive morphology in the languages that have a ‘true passive’ construction, as in Ampenan Sasak in (46).

- (46) Ampenan Sasak, Passive with Goal AppP (Khairunnisa & McDonnell in prep)
- a. Dengan tólóq babak bajur leq ramuan.
 people put bark bajur LOC potion
 ‘People put bajur tree bark in the potion.’ (BC)
 - b. Ramuan te-tólóq-an babak bajur siq dengan.
 potion PASS-put-APPL bark bajur by people
 ‘The tree bark was added to the potion (lit. made thing) by people.’ (AC)

In (46a), the BC is an A-oriented construction: A is the subject and the goal is expressed in an oblique PP. In the AC in (46b), the verb is prefixed with the passive marker *te*- and suffixed with the applicative *-an*. In this construction, the goal AppP is promoted to the subject position.

The only syntactic restriction we have noted thus far is in Sundanese where ditransitive constructions may occur in PV but not AV (see Section 4). In Pendau, Quick (2007: 304–305) notes that there are some roots that require the goal applicative *-i* in PV, as in (47a), but the same applicative cannot occur in AV, as in (47b). Quick even shows that it is ungrammatical *without* the applicative suffix *-i* in PV and ungrammatical *with* the applicative suffix in AV.

- (47) Pendau, voice restrictions on AC (Quick 2007: 304)
- a. palan ro-guntung-i=nyo
 lamp PV.IR-light-APPL=3SG.NSBJ
 ‘He/she will light the lamp.’
 - b. a’u mong-guntung palan
 1SG AV.IRR.SF.TR-light lamp.
 ‘I will light the lamp.’

A similar restriction is reported by Miller (2007: 192–193) for West Coast Bajau where the applicative suffix *-an* is required for some roots to occur in PV but are optional in AV. Such restrictions likely arise from the grammaticalization of a more general tendency for PV constructions to be higher in semantic transitivity where P (or the AppP in ACs)

is likely to be more highly individuated and affected in discourse. This is not to imply that applicatives do not occur in AV, but that there appears to be a correlation between PV and applicative affixes in at least some western Indonesian languages (see McDonnell 2016: 214–215). See also Donohue (2001) who shows that there is an overwhelming preference in *Tukang Besi* for AppPs to be subjects in discourse.

Despite a general lack of syntactic restrictions on voice in ACs across the sample, the combination of voice and applicative morphology allows a participant with a peripheral semantic role, such as a beneficiary, instrument, goal, or location among others to be the subject (see Davies 2005 for in-depth discussion of these points in Madurese). Further, it is well-known that subjects in western Indonesian languages are the syntactically privileged argument and thus play an important role in syntactic operations, such as relativization and focus (see e.g. Arka 2003, Riesberg 2014). In many of the languages of western Indonesia, such operations are restricted to the subject or at least core arguments.

In all eight languages, relativization is marked by a ‘gap’ in the relative clause, which is coreferential with the head noun, and in all but Makasar and West Coast Bajau the relative clause is introduced by some sort of linker or relativizer. With the exception of Ampenan Sasak, the ‘gap’ is restricted to the subject or in the case of Makasar a single argument in the clause (see below). In Ampenan Sasak, relativization is restricted only to core arguments (see Khairunnisa 2022: 84–87). Nasal provides a clear example of how voice and applicatives interact to allow peripheral semantic roles to head a relative clause. The examples in (48a) and (49a) demonstrate that when P is the head noun, the predicate in relative clause must be in PV. When the PV construction is marked with an applicative suffix, it is the AppP that is the head of the relative clause. In (48b), the predicate in the relative clause is suffixed with the goal applicative *-i*, and the goal AppP is the head noun. In (48b), the predicate in the relative clause is suffixed with the instrumental applicative *-kun*, and the instrument AppP is the head noun.

(48) Nasal, Instrument AppP in relative clause (McDonnell fieldnotes)

- a. tulis-an [sai di-tulis anak=ku jenu] kak ku=hapus.
 write-NMLZ REL PV-WRITE child=1SG.POSS earlier PFV 1SG.NSBJ=[PV]erase
 ‘I erased the writing that my child wrote (on the wall).’ (BC)
- b. sisai [sai di-tulis-i anak=ku jenu] kak
 wall REL PV-write-LOC.APPL child=1SG.POSS earlier PFV
 ku=bekhesih-kun.
 1SG.NSBJ=[PV]clean-CAUS
 ‘I cleaned the wall that my child wrote on.’ (AC)

(49) Nasal, Goal AppP in relative clause (McDonnell fieldnotes)

- a. manuk [sai ku=panggul jenu] lijung.
 chicken REL 1SG.NSBJ=[PV]hit earlier flee
 ‘the chicken that I hit earlier ran away.’ (BC)

- b. tungkuk [sai ku=panggul-kun khan manuk jenu] patuh.
 staff REL 1SG.NSBJ=[PV]hit-APPL with chicken earlier break
 ‘the staff that I used to hit the chicken broke.’ (AC)

In Makasar, relative clauses simply follow the head noun without a relativizer, but the end of the relative clause is typically marked with a clitic =*a* that marks definiteness. It appears that only the P argument in unmarked transitive clauses may be the head of the relative clause; when A is relativized, the verb is prefixed with the actor focus *aN*- or semi-transitive *aN(N)*- prefix (see Jukes 2020: 228). However, just as in Nasal, a peripheral semantic role may be the head of the relative clause when it is suffixed with an applicative, as in (50) where the locative AppP is the head noun and in (51) where the instrumental AppP is the head noun. These examples are analogous to Nasal examples in (48b) and (49b), respectively.

- (50) Makasar, Goal AppP in relative clause (Jukes 2020: 229)

sikola [na=mange-i=a agang=ku] baji'=i.
 school 3=go-APPL=DEF friend=1.POSS good=3
 ‘the school my friend goes to is good.’ (AC)

- (51) Makasar, Instrument AppP in Relative Clause (Jukes 2020: 229)

sele' [ni-buno-ang=a=i] tarang=i.
 kris PASS-kill-APPL=DEF=3 sharp=3
 ‘the kris he was killed with was sharp.’ (AC)

Aside from relativization, Jukes (2020: 311) points out that applicatives also allow peripheral semantic roles to be focused in Makasar, as in (52). In Makasar, arguments in canonical clauses occur after the verb, but arguments that occur in the preverbal position receive focus.

- (52) Makasar, Focused location AppP (Jukes 2020: 311)

tapper=e' ku=empo-i.
 mat=EC 1=sit-APPL
 ‘I sit on a mat.’ (AC)

West Coast Bajau has a similar focus construction that is restricted to subjects (Miller 2007: 206–207). In this construction, the subject occurs in the preverbal position and is focused, as in (53). In (53a), the P argument is the subject and thus can be focused in the preverbal position, but when the predicate is suffixed with the applicative *-an* the recipient AppP is subject and can now be focused, as in (53b). Miller (2007: 207) also demonstrates how non-subject arguments cannot be fronted in the same way. Again, with the combination of applicative and voice, peripheral semantic roles can be focused in this way because they are the subject.

(53) West Coast Bajau, Focused beneficiary AppP (Miller 2007: 206)

- a. Telumpa' e boi Ø-beli=ni ta' Kuzik.
 shoes DEM CMPL PV-buy=3SG.NSBJ LOC K.
 'She bought the shoes for Kuzik.' (BC)
- b. Kuzik boi Ø-beli-an=ni telumpa' e dilaw.
 K. CMPL PV-buy-APPL=3SG.NSBJ shoes DEM yesterday
 'She bought Kuzik the shoes yesterday.' (AC)

11 Conclusion

In this chapter, we have surveyed ACs in a sample of eight Austronesian languages of western Indonesia. While the affixes that mark ACs are polyfunctional with numerous non-applicative functions, the primary focus of this chapter is on the applicative uses of this morphology. Truong & McDonnell (2022) focus on many of the non-applicative functions.

- Each of the eight languages in the sample has between one and three verbal affixes that marks ACs.
- The majority of languages have two applicative suffixes: one that marks beneficiary, recipient, theme, and/or instrument AppPs and another that marks locative, goal and/or addressee AppPs. Outliers include West Coast Bajau and Ampenan Sasak which have a single suffix that either marks all four of these AppP (West Coast Bajau) or all but instrumental AppPs (Ampenan Sasak).
- ACs with benefactive/recipient AppPs generally only occur with transitive bases and result in an increase in the number of core arguments, such that these ACs are ditransitive.
- Instrumental ACs license an instrument AppP. In Pendau instrumental ACs are ditransitive, but in all other languages of the sample, instrumental ACs are monotransitive and the (patient or goal) companion phrase is remapped to an oblique phrase.
- Most languages with instrumental ACs also have theme ACs marked with the same affix. The two constructions share semantic similarities in that like themes, most instrument AppPs in these languages express an entity that is directed into motion. Theme ACs are generally monotransitive in the languages of the sample.
- Goals, locatives, and addressees are typically marked with the same applicative affix. The syntax of these goal ACs is more diverse than both benefactive and instrumental ACs. With some exceptions, goal ACs may occur on intransitive and transitive bases, and with transitive bases, may either increase the transitivity or remap the AppP and the companion phrase.
- When the applicative affixes that mark instruments, recipients, goals, and locations attach to intransitive bases, they also license AppPs expressing various other semantic roles, including content, stimulus, and product of bodily process. These construc-

tions result in monotransitive ACs. For many ACs of this type there is no monocalusal BC equivalent.

- The affixes that function as applicatives may also be morphological lookalikes. Constructions marked with these affixes may not license an AppP but instead have a purely semantic effect such as indicating repeated or pluractional aspect, greater intensity or properties such as individuation, definiteness, or specificity.
- In the languages of the sample, three of the eight languages have a separate productive causative prefix. In two of these languages the applicative markers and causative prefix can freely combine. In all languages of the sample, one or both suffixes that mark ACs can also mark causative constructions. In a number of ACs, both the applicative suffix and another prefix must appear on the verb. In some cases, these appear to no longer have semantic content.
- In western Indonesian languages, the subject plays an important role in syntactic operations, and the combination of voice and applicative morphology allows peripheral semantic roles, such as beneficiaries, instruments, goals, and locations to be the subject.

Abbreviations

1	first person
2	second person
3	third person
A	most agent-like argument of transitive clause
AGT	agent marker
AC	applicative construction
APPL	applicative
AppP	applied phrase
AV	voice in which A is the privileged syntactic argument
BC	base construction
BEN	benefactive
CAUS	causative
CMPL	completive
DEF	definite
DEM	demonstrative
DISTR	distributive
EC	echo VC (epenthetic syllable)
FA	factive (stem-former)
FAM	familiar
IMP	imperative
INTR	intransitive
IRR	irrealis
ITER	iterative
LOC	locative
NEG	negative

NMLZ	nominalizer
NSBJ	non-subject core argument
P	patient-like argument of transitive clause
PFV	perfective
PL	plural
PN	personal name marker
POSS	possessive
PROG	progressive aspect
PRT	particle
PV	voice in which P is the privileged syntactic argument
RDP	reduplication
REL	relativizer
S	Single argument of intransitive clause
SF	stem-former
SG	singular
STR	semi-transitive

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Part III: **Theoretical/Comparative outlook**

29 Understanding applicatives

Abstract: This chapter presents and analyzes the main criterial properties of applicative constructions as proposed by Zúñiga and Creissels in their introductory chapter. These properties are as follows: (i) applicativization, as a subtype of nucleativization, alters the status of non-agentive non-subject arguments; (ii) the predicate in the applicative construction has overt morphological marking that sets it apart from the base-construction predicate; (iii) the applied phrase has a role other than S or A and refers to a participant that either requires a non-core coding different from its coding in the base construction or cannot be expressed at all in the latter. While generally in agreement with these criteria, the chapter proposes some adjustments to and expansions of all three of these properties. Concerning property (i), the chapter discusses the connection between causativization and applicativization, which is manifested through common causative-applicative syncretism. With regard to (ii), it argues for loosening the restriction on overt morphological marking of the applied verb, which would allow us to capture language-internal inconsistency in applicative marking and include agreement exponents as signals of the applicative as well. With respect to property (iii), the chapter advocates the inclusion of constructions with an external object possessor (object possessor-raising constructions) in the range of applicatives.

1 Introduction

In their introductory chapter, which informs this volume, Fernando Zúñiga and Denis Creissels (henceforth Z and C) define the relation between the applicative construction and the base construction using three criteria. The order in which I present them is different from the order used in their chapter.

First, the participant that is agentive or subject-like (referred to as A or S,¹ depending on transitivity) in the base construction retains these properties in the applicative construction. This requirement is needed to capture the generalization that applicativization alters the status of non-agentive/non-subject arguments, in contrast, for instance,

¹ A stands for Agent or most agent-like argument of a transitive/ditransitive clause, and S stands for the sole argument of an intransitive clause.

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to passivization. This criterion is also needed to separate applicativization from causativization, which, as Z and C indicate, “target[s] an instigating agent that appears in A role”.

The second operational criterion has to do with overt marking of the predicate; the predicates in the base construction (BC) and in the applicative construction (AC) need to be marked differently. Finally, the applicative construction naturally includes an applied phrase: “a noun phrase in a role other than S or A, . . . which refers to a participant that either requires a non-core coding different from its coding in the AC or cannot be expressed at all in the BC”.

It is commendable that the applicative construction is well defined operationally, as this allows us to follow strict criteria for establishing and comparing ACs across languages and also allows us to separate true ACs from what Z and C aptly call “lookalikes”. At the same time, there is a worry that the proposed operational criteria are too restrictive and may force us to miss some generalizations. In what follows, I will discuss each criterion in turn (§§ 2–4), and it is my hope that this discussion will stimulate further debate about the nature of applicative constructions both empirically and theoretically.

2 Generalized applicative: Applicatives and causatives as two subtypes of nucleatives

All definitions of applicatives, no matter how narrow or wide, are constructed in such a way that the subject, the agent, or the most agent-like argument is not affected by applicativization. Informally, that means that applicativization involves operations on structurally lower arguments: non-subjects. In addition to this constraint, one that refers to grammatical relations, the applied argument does not associate with agent-like interpretation. In keeping with this reasoning, Z and C further distinguish causativization and applicativization as two distinct ways of introducing a core argument:

[A]pplicativization is a subtype of verb-coded valency alternation: it is a special case of NUCLEATIVIZATION, an operation that allows participants not encoded as core terms in the base construction to be encoded as such in the derived construction. More precisely, applicativization is an instance of NON-S/A NUCLEATIVIZATION: applicatives target participants that have a non-S/A role in the derived construction, unlike operations where nucleativized participants have an S/A role, like causativization (which target an instigating Agent that appears in A role) and several other cases of non-causativizing alternations (which target other participants, like obliques or possessors).

I agree with Z and C in assuming that nucleativization (their term) amounts to adding a new argument, one that is not going to be external in the resulting applicative construction. Thus, there is an operation that increases valency by adding a non-subject argument to a particular verb. However, in contrast to Z and C’s approach, I would like to treat this valency-increasing operation as a more general mechanism, one that does

not distinguish between causativization and applicativization. I see several arguments in favor of this more general approach.

The first two arguments are empirical; they have to do with the cross-linguistically common SYNCRETISM of applicative and causative and with the INTERPRETATIVE VAGUENESS of the newly added argument in a number of cases. I discuss these two arguments in Sections 2.1 and 2.3. The other two arguments, discussed in Sections 2.2 and 2.4, have to do with the conceptual premises of grammatical theory and with the interpretation of the causee role.

2.1 Generalized applicative: Applicativization as addition of a syntactic object

Quite a few languages use the same affix to form causatives and applicatives (Dixon 2012: 332, 336). This phenomenon has been described as “causative/applicative syncretism” (Shibatani and Pardeshi 2002: 116): a single morpheme has two different functions, typically distinguished based on the semantics of the verb it combines with; see also Zúñiga and Kittilä (2019: Ch. 2). Alternatively, this phenomenon can be referred to as GENERALIZED APPLICATIVE or, to follow Z and C’s terminology, as UNSPECIFIED NUCLEATIVE. It appears that such unspecified nucleativization is as common as the more specified applicativization, and the two can actually co-occur within a single language, as I show below. Early studies of applicatives were very much inspired by Bantu applicatives, and those are typically distinct from causatives, so there may also be an element of tradition in separating the two processes.

Just a cursory look across the globe shows that causative-applicative syncretism is not limited to a genetic or areal grouping. Austin (2005) and Austin (this volume) discuss a range of Australian Aboriginal languages where the same affix can have different syntactic effects depending on the verb root that it attaches to. In Pitta-Pitta, for example, the affix *-la-* forms causatives when added to non-volitional intransitives (such as ‘fall’) but forms applicatives when added to volitional intransitives (such as ‘play’) (Austin 2005: 12). In Arawakan languages, the applicative reading is only one of the functions of a particular exponent, “and probably a secondary one, as its main function is causative” (Van Gijn, this volume). The causative-applicative syncretism is observed in several Austronesian languages: Javanese (Hemmings 2013), Old Malay, colloquial Indonesian (Arka et al. 2009), several languages of Western Indonesia (McDonnell and Truong, this volume), Mori Belait (Himmelman 2005: 170), Kambera (Klamer 1998), Kapampangan (Zúñiga and Kittilä 2019: Ch. 2), Boumaa Fijian (Dixon 1988; Creissels, to appear: Ch. 14), Niuean (Massam 1998, 2020), and Tongan (Ball 2008). It is also reported in Hakha Lai, spoken in Myanmar (Peterson 2003; 2007). In the Papua New Guinean language Tauya, the same marker introduces causees and applied objects (Creissels, to appear: Ch. 14). Foley (this volume) also notes the syncretism of applicative and causative marking in Papuan languages. Mithun (this volume) mentions that the addition of the general

applicative marker *-ute-* to the verb in Yupik can signal a variety of roles, including causee.² In Chukchi, the same prefix *r-/n-*, which combines with intransitive verbs, can have either the causative or the comitative/instrumental applicative meaning (Dunn 1999: 198–201, 210–212); a similar syncretism is observed in the closely related language Alutor (Koptjevskaja-Tamm and Muravyova 1993). Kartvelian languages use a number of prefixes (also known as character vowels, pre-radical vowels, thematic prefixes, or versionizers, the term I use below; see Tuite, this volume, for an extensive discussion and examples) that typically indicate an increase in valency (Boeder 1969; Lomashvili 2011; Nash 2020; Tuite, this volume). Among them, the versionizer *a-* is ambiguous between causative and locative applicative; see also Tuite (this volume); Creissels (to appear: Ch. 14), and consider example (2) below. The causative-applicative syncretism is found in some Uto-Aztecan languages (see Álvarez González and Estrada Fernández, this volume; Thornes on Numic, this volume; Harley 2017; Langacker 1977; Tuggy 1983) and in the isolate spoken in the Pacific Northwest, Ktunaxa (also known as Kutenai), as discussed by Gatchalian (submitted) and illustrated in examples (5) and (6) below. In the Yuman language Hualapai, the syncretic verbal marker encodes applicativization on transitive verbs and causativization on intransitive verbs (Peterson 2007: 64–66). This list is far from exhaustive, but it is genetically and areally quite diverse.

On the lumping approach, one that treats causativization and applicativization as different manifestations of the operation that adds a (non-subject) argument, causative-applicative syncretism is expected, as the two phenomena are different facets of adding an object and thus increasing valency; the interpretation of the applied object (its semantic role) is a separate process. If, however, the two processes are considered different, the causative-applicative syncretism is accidental and needs to be explained using some other tools.

An argument against the lumping approach comes from the observation that both syncretic and non-syncretic applicatives are robustly present worldwide and can even co-occur in the same language. Given this co-occurrence of patterns, one can propose the splitting approach to causatives and applicatives. Under this approach, we should distinguish between two kinds of phenomena: (i) those in which causatives and applicatives constitute two competing readings of one and the same structure (syncretism), and (ii) those in which the causatives and applicatives are alternative structures with their own conventionalized readings.³ The splitting approach is based on the tacit assumption that the addition of an object argument and its semantic-role assignment are parts of the same grammatical operation. I turn to this issue in the next section, 2.2, and also offer further considerations in Section 2.3.

² However, the markers for causative and applicative are different in Inuktitut and Kalaallisut (Michelle Yuan, p.c.).

³ I am grateful to Fernando Zúñiga for suggesting this alternative to me.

As we try to distinguish between these analytical alternatives, it is worth bearing in mind that the splitting approach is less economical and specifically requires that we make predictions as to where phenomenon (i) or phenomenon (ii) is expected. Overall, the choice between lumping and splitting leads to further questions, including the interpretation of the applied argument, which I will address in Sections 2.3 and 2.4.

2.2 Syntactic objects versus bearers of semantic roles

In addition to the empirical arguments, which have to do with causative-applicative syncretism and the vagueness of the interpretation when it comes to the applied object, we should also consider a conceptual argument, one that relies on the separation of form and meaning. Adding an argument to a clause/verb is a purely morphosyntactic operation, one that increases the transitivity of a predicate or leads to the rearrangement of its arguments. What all the instances of this operation share is that the added argument in the applicative construction is not the subject (highest external argument). If we separate this operation from the operation of interpreting the applied object as the bearer of a particular semantic role, the syncretism between causativization and applicativization again becomes quite expected.

Next, we can account for cross-linguistic differences between languages whose applicative or causative markers are distinct and languages with syncretic markers in a straightforward manner. A morphological exponent can be specified only for its function as adding an argument without any reference to the semantic role of that argument; in other words, its only function is to signal that a new non-subject argument is added. This is the characterization of a GENERALIZED APPLICATIVE. In Section 2.3, I will introduce data from Wixárika whose verbal exponent *-ri(e)*, which can introduce either causees or beneficiaries/maleficiaries, occurs only with two-place verbs. This is an indication that its distribution is sensitive to the number of arguments in the base construction and not to their semantic interpretation. Numerous examples of such sensitivity to the number of arguments are found throughout this book, lending further support to the purely structural nature of generalized applicatives.

In contrast to a generalized applicative, a morphological exponent can be specified both morphosyntactically and semantically; in such a case, not only does it mark the addition of a new argument, it also signals the role of that argument: causee, beneficiary, source, instrument, location, or the like. Such a situation is also common across languages. For instance, in Hiaki (Uto-Aztecan), there are separate exponents that introduce the causee and the benefactive applicative, and these can co-occur:

- (1) Hiaki (Harley 2017: 12)

Maria uusi-ta aa ham-ta-ria-k.
 Maria child-ACC 3SG.ACC break-TR.CAUS-APPL-PRF
 ‘Maria broke it (made it break) for the child.’

Finally, we can also expect to find an applicative marker that specifies a semantic role of a clausal constituent without adding such a constituent as an object argument. In their chapter on applicatives in European languages, Zúñiga, Arkadiev, and Hegedűs (this volume) specifically note that in “some instances in English, German, and Hungarian, [applicatives] can be valency-neutral (or even valency-reducing, like with some *be*-verbs in German)”. Similarly, Toba (Qom) adds the applicative affix to the transitive base without increasing verbal valency (Censabella, this volume). More generally, the separation of semantic-role indexing from the valency-increasing function may be characteristic of X- or D-applicatives (per Z and C’s classification); an adpositional phrase (PP) becomes obligatory without turning into a syntactic object; hence, it is something like an obligatory adjunct. Distinguishing arguments from adjuncts is a difficult problem, and to determine whether a particular expression that does not look like a direct object is an argument or an adjunct, one needs to examine language-specific characteristics such as binding, scope, subextraction, and control.⁴

In sum, separating two functions of applicative exponents, namely, marking a particular semantic role and marking the general addition of an argument, allows for a more adequate typology of applicative encoding.⁵

2.3 The interpretation of the argument role under causative-applicative syncretism

Related to the syncretism of verbal marking that adds an object to the structure is the observation that there is often vagueness in the interpretation of the applied argument’s role. It can be interpreted as a causee, location, possession, comitative, experiencer, recipient, or source. Consider some examples. In Georgian, the applied object in the *α*-version can be interpreted either as a causee/location (Nash 2022) or as a causee/comitative-sociative (Nash 2020):⁶

⁴ We can also expect to see lexicalized applicatives where the use of an applicative marker on the verb is no longer associated with argument addition.

⁵ In formal accounts of applicatives, the co-occurrence of applicative markers is explained in terms of the structural dominance of individual functional heads and arguments introduced by these heads (among others, Pylkkänen 2000, 2008; Jung 2014; Harley 2017). This ordering is only partially related to the issue discussed in this section; it also bears on another issue: the hierarchical relation between the applied object and the base object.

⁶ See also Tuite (this volume), who characterizes locative applicative as superessive, and Creissels (to appear).

(2) Georgian (Nash 2022)

mzia-m txilamureb-i ertmanets mi-a-magr-a.
 Mzia-ERG skis-NOM each.other.DAT PRV-VERS-strong-AOR.3SG
 ‘Mzia made the skis stick together.’
 ‘Mzia fixed the skis to each other.’

In Korean, the dative object added by the generalized applicative *-I-*, which surfaces variously as *-i*, *-hi*, *-li*, or *-ki*, can be interpreted as adding either a causee or a location:⁷

(3) Korean (Kim 2009: 25)

emma-ka ai-eykey os-ul ppaliip-hi-ess-ta.
 mother-NOM child-DAT clothes-ACC wear-APPL-PST-DEC
 ‘Mother dressed the child (made the child wear clothes).’
 ‘Mother had the clothes put on the child.’

This generalized applicative cannot co-occur with the specialized benefactive applicative *-ecwu-*, which indicates that they compete for the same position in the verb structure:

(4) Korean (Jung 2014: 50)

**Yenghi-ka Chelswu-eykey ai-eykey chak-ul ilk-hi-ecwu-ess-ta.*
 Yenghi-NOM Chelswu-DAT child-DAT book-ACC read-APPL-APPL-PST-DEC
 (Intended: ‘Yenghi made Chelswu read the book for the child.’)

In Ktunaxa, an applied animate argument can be interpreted as a causee or a beneficiary/maleficiary, as shown in (5).⁸ Note that morphologically, there are two exponents: the suffix glossed as causative and the suffix *-t-*, which specifically marks the addition of an argument.⁹

(5) Ktunaxa (Gatchalian, submitted: Ex. [51a])

?ik-?i-t-ap-ni kanuhusnana.
 eat-CAUS-VAL-1SG.OBJ-IND apple
 ‘Someone made me eat the apple.’
 ‘Someone ate the apple on me.’

⁷ Glosses modified from the original.

⁸ Bella Coola (Salishan, western Canada) has similar generalized structures (Davis and Sanders 1997). The two languages are not related but areal similarities may also be behind the common use of generalized structures.

⁹ Ktunaxa also has an unambiguously applicative marker that adds a beneficiary (Gatchalian, submitted). Thus, there is a rich inventory of argument-increasing exponents in this language, which makes the observed causative-applicative syncretism even more remarkable.

- (6) Ktunaxa (Gatchalian, submitted: Ex. [51b])
mu=hun=hukup-ɕi-t-is-ni *kikil̥*
 PST=1SG.SBJ=be.cooked-CAUS-VAL-2SG.OBJ-IND food
 ‘I made you cook food.’
 ‘I cooked food for you.’

If nucleativization involves different operations, the ambiguity or vagueness of the interpretation associated with the applied object seems unexpected; in contrast, on the assumption that the applicative exponent simply adds an object, rather than an argument with a particular semantic role, such ambiguity is unsurprising.

Potential support for the interpretive vagueness of the applied object may also come from diachrony. For example, as observed by Petersen (2007: 135), parallel grammaticalization of the same verb ‘give’ in a causative periphrasis and in an applicative periphrasis may be a possible source of the applicative-causative syncretism.

If the causative and applicative marking are linked, as I propose here, we should expect the following diachronic developments:

- i. narrowing: generalized applicative marker turning into a more specialized marker of causative or of applicative
- ii. expansion: dedicated causative marker assuming the functions of a generalized applicative marker, or dedicated applicative marker assuming the functions of a generalized applicative marker

I am not aware of either diachronic development, which could be equally a sign of my ignorance or, in a more promising way, of an area in comparative linguistics that warrants further investigation.

Assuming the syncretism of causative and applicative marking, one wonders if it is possible to make predictions concerning the semantic role of the argument introduced by a generalized-applicative marker. As an illustration, let us consider the suffix *-ri(e)* in the Uto-Aztecan language Wixárika, also known as Huichol (Bierge 2017: 257 ff.). The main function of this suffix is to introduce a beneficiary, recipient, or maleficiary; based on the discussion and examples in Bierge (2017), these participants are always added to a two-place verb. In the following example, the applied beneficiary object is cross-referenced in verbal agreement, and this cross-referencing involves the non-subject exponent *mats*:

- (7) Wixárika (Bierge 2017: 258)
pini ne-mats-u-ti-wewi-rie.
 dress 1SG.SBJ-2SG.NSBJ-VIS-PL-make-APPL.INCOMPL
 ‘I made you a dress.’

On the other hand, the same affix *-ri(e)* is also used to introduce a causee; consider (8), where the causee is cross-referenced in the verb by the same type of non-subject

marker as in (7) (the persons are different) and the verb is again transitive, with the inanimate base object:

(8) Wixárika (Bierge 2017: 261)

haa me-nets-u-xi-ri-ri-xi.

water 3PL.SBJ-1SG.NSBJ-VIS-heat-RES.COMPL-APPL.COMPL-PFV

‘They made me boil water.’

It is worth noting that the two variants of the applicative affix differ in their aspectual value, with the true applicative being associated with incomplete aspect or possibly lack of telicity, and the causative *-ri(e)* being associated with completive aspect/telicity. At this juncture, it is unclear how strong these correlations are for Wixárika, but they do not seem to be limited to that single language.

In the analysis couched in terms of Cognitive Grammar, Tuggy (1983) makes a connection between the choice of the causative or applicative meaning and aspect.¹⁰ To paraphrase his analysis, if the semantics of the affixal predicate represents and emphasizes the end result of an event, the polysemous suffix is interpreted as causative, and the argument introduced by the generalized applicative is interpreted as causee. This causee is viewed as the Ground (topic), and the eventuality is its Figure, and this emphasis on the outcome of the event is tied to the telic interpretation.¹¹ Conversely, if the representation of the affixal predicate emphasizes the process, the polysemous suffix is likely to be interpreted as applicative; the argument added by the generalized applicative is interpreted as Figure, and the eventuality corresponds to Ground. The outcome is less likely, which explains the atelic nature of the event or at least the lack of specification in terms of telicity.

Based on these preliminary observations, causativization is partially correlated with telicity, and applicativization is either free of such correlation or is partially correlated with a lack of telicity. If this is on the right track, the two interpretations are in a privative opposition, where the values for the causatives are more specified. On this interpretation of the data (which need to be probed further), causative-applicative syncretism is more predictable; the choice of the causative interpretation is specified, and the applicative interpretation is a sort of elsewhere condition.

¹⁰ Z and C also note possible correlations between applicativization and aspect or manner (see § 1.2.2 of their chapter) but tend to consider them only under the rubric of lexicalized applicatives.

¹¹ See Talmy (1978; 2000: Ch. 5), Langacker (1993) on the notions of Figure and Ground.

2.4 How agentive is the causee?

Z and C's rationale for separating causativization from applicativization may stem from the need to maintain the non-agentive interpretation of the applied object; a causee on the other hand is agentive, interpreted as S or A. But is this distinction so strong that it forces us to consider the process of causativization to be completely separate from applicativization? Causatives constitute a broad set of constructions, of course — consider the distinction between *faire*-infinitif and *faire-par* causatives in Romance (Folli and Harley 2007; Ippolito 2000; Kayne 1975, among others);¹² the discussion below only relates to the former type.

First, there is a subset of causees that have fewer agentive properties than the prototypical external argument. This lack or deficiency of agentive properties has been noted, in particular, with respect to causatives of verbs of cognition and perception (whose subject is not agentive to begin with and is likely to be interpreted as experiencer). If a generalized applicative adds such an argument as causee, it is hard to tell it apart from other types of recipients, and assigning it the agentive interpretation is problematic.

Going beyond the experiencer subtype, many discussions of causative constructions suggest that a causee is inherently less agentive than a prototypical agent/causer; after all, the event in which the causee appears as S or A is instigated by another participant, and causee may share properties with a comitative or patient (e.g., Bisang 2006; Dowty 1991; Gerdts 2003; Nash 2020; Shibatani and Pardeshi 2002; Wali 1981, to name a few).

In particular, causees in causatives of transitives are often interpreted as being similar to the instrument, comitative, or associate argument; consider the discussion of “sociative causatives” by Shibatani and Pardeshi (2002). This is not surprising, and there are at least two considerations related to this ambiguity of the causee role. First, causer-related causation already includes the external argument, whose semantic role is identified as the external initiator of the caused event. The causee is not acting fully on its own volition; rather, the initial motivation for the event comes from the causer, and the causee is more of an “associate”. This is related to the second consideration, one that has to do with the decomposition of semantic roles into proto-properties (Dowty 1991). Among other properties, a prototypical agent causes an event or change of state in another participant, whereas a prototypical patient is causally affected by another participant (Dowty 1991:572). In causative constructions, the causee is construed as affected by the causer, which can lead to de-agentivization of the former.

¹² The two types of causatives differ in a number of ways, including the encoding of causee (the causee of a transitive embedded verb is marked with dative case in *faire*-infinitif and by a preposition in *faire-par* causative) and the omission of causee (it can only be omitted from *faire-par* causatives); see Folli and Harley (2007), Kayne (1975) for a detailed list of differences.

As noted by Kittilä (2013: 126; see also Kittilä 2009),

the result of causation is a division of agentive features, but the degree of ‘overall agency’ is maintained. Because the original agent—the causee in the caused event—is made to act by an external causer, causation deprives it of certain agentive features and makes it more patient-like. . . . The participant in question is somehow affected by the event it partakes in, which is also manifested in case marking.

If we accept that causees are less agentive than prototypical agents, that removes the original consideration for treating causativization as a separate process of nucleativization by Z and C. And in fact, considering causatives in the context of applicatives may allow us to better understand the properties of a subset of causees.

3 Overt marking of the predicate in the applicative construction

3.1 Types of applicative markers

Another criterial feature of applicativization has to do with overt marking of the applicative on the predicate of the applicative construction. In their chapter, Z and C distinguish four ways in which the predicate of the base construction can differ from the predicate of the applicative construction (see Table 1 in Z and C’s chapter); I have slightly modified their wording:

Table 1: Morphological valency alternation types (after Z and C).

	Overt voice marking on the predicate	No overt voice marking on the predicate
Asymmetrical	Applicative overtly marked compared to the base predicate	—
Symmetrical	Both base and applicative predicate overtly marked	Labile verbs

For Z and C, it is crucial that the applicative predicate show greater morphological complexity than the base predicate (asymmetrical overt marking). This is an important observation, one that implicitly reflects the diachronic sources of applicativization, which often arises either (i) when an adposition or case marker is incorporated into a verb¹³

¹³ The synchronic presence of adpositions in a given language is irrelevant for this process, as an adposition may have been reanalyzed into an applicative marker on the verb at prior stages of the history of

or (ii) when a verb in a serial verb construction gets reanalyzed as an applicative morpheme (see Censabella, this volume, for the latter grammaticalization route). As evidence of these routes to applicativization, the same or similar exponents can coexist in a single language as applicative morphemes and adpositions. As an example, consider Amberer (this volume) on what he analyzes as the prepositions *la-* and *ba-* and applicative markers *ll* and *bb* observed in Amharic. This transparent correspondence between prepositions and applicative markers may be an instantiation of diachronic path (i) in that language. Likewise, applicatives in Northwest Caucasian languages, which make wide use of the D-type (meaning dative-like), are typically analyzed as predicates that incorporate an adposition and an agreement marker attached to it (see Letuchiy 2007; O’Herin 2001).¹⁴ (Note, however, Arkadiev, Lander, and Bagirokova, this volume, who discuss non-adpositional sources of applicatives.)

In principle, the distinction between applicative markers that trace their parentage from adpositions and those that derive from grammaticalized verbs in serial verb constructions should be relatively straightforward — as long as we are not dealing with morphologically impoverished languages where distinguishing between lexical categories takes more work. Polynesian languages are a good case in point. In a number of these languages, the instrumental/applicative marker *Caki* coexists with the preposition (*ʻaki*). Researchers are divided on the analysis of this marker, some analyzing it as a preposition incorporated into the predicate (e.g., Massam 1998, 2009, 2020), others considering it a verb (Ball 2008). The case of Tongan applicatives considered in detail by Ball (2008) is particularly instructive. An ergative language, Tongan has three types of constructions with the instrumental expression: the base construction with a prepositional instrumental phrase, as in (9a); the applicative construction whose predicate is overtly marked by *ʻaki*, exemplified by (9b); and the so-called double construction, where *ʻaki* appears twice, shown in (9c).¹⁵

(9) Tongan (Sisilia Lutui, p.c.)

- a. *Naʻe tofi ʻe he fafine ʻa e mā ʻaki*
 PST cut ERG DET woman ABS DET bread INS
 ʻa e *hele*.
 ABS DET knife
 ‘The woman cut (the) bread with the knife.’

that language. The development of applicative markers from adpositions has been extensively discussed in analyses of Bantu (see, among others, Creissels, this volume; Pacchiarotti, this volume; Baker 1988; Nakamura 1997; Buell 2003, 2004; den Dikken 2023).

14 For other sources of applicative marking, see Peterson (2007), Creissels (to appear).

15 The examples here are similar to those used in Ball (2008: 315–319) but instead of proper names, I use two common nouns.

- b. *Na'e tofi 'aki 'e he fafine 'a e hele*
 PST cut INS.APPL ERG DET woman ABS DET knife
'a e mā.
 ABS DET bread
 'The woman cut (the) bread with the knife.'
- c. *Na'e tofi 'aki 'e he fafine 'a e mā 'aki*
 PST cut INS.APPL ERG DET woman ABS DET bread INS
'a e hele.
 ABS DET knife
 'The woman cut (the) bread with the knife.'

With respect to examples such as (9b), Ball (2008: 319) writes:

The term applicative '*aki* construction for [(9b)] is due to the fact that it resembles applicatives in other languages. This construction has an applicative marker close to the verb. . . , and there is an added core argument, the instrument.

As Ball shows, '*aki* does not pattern with other Tongan prepositions, though. First of all, its complement appears in the absolutive (see [9a] and [9c]), which is unusual of prepositions in general and of Tongan prepositions in particular. In addition to its argument realization, '*aki* patterns with verbs based on its co-occurrence with conjunctions, various kinds of morphological alternations, and its co-occurrence with negation (Ball 2008: 321–327). On the other hand, unlike regular Tongan verbs, '*aki* cannot be transitivized or causativized (Ball 2008: 327–330). It appears closer to a grammaticized serial verb than a preposition, thus instantiating diachronic route (ii) toward applicativization mentioned above. At the same time, this discussion is intended to demonstrate that careful distributional analysis is needed to reach one conclusion or the other in each particular case. Assuming that '*aki* is synchronically an applicative marker, one can hypothesize that the applicative argument in (9b) corresponds to P-applicatives in Z and C's classification, while the double construction (9c) creates an interesting challenge for their classification: the verb is marked as applicative but the instrumental marker does not change. Based on the discussion in Ball's work (2008), the prepositional instrument in the double '*aki* construction in (9c) has properties of an oblique object, while the applied instrument in (9b) has direct object properties. So we are left with the open question of what criteria of applicativization to use in accounting for the double construction.

To wrap up the discussion of pathways to applicative marking (including the diachrony of such marking), it is worth noting that the incorporation of adpositions/case markers and reanalysis of serial/secondary verbs may both be available within a single language, as these two routes are not mutually exclusive. If so, a question may arise, one for future research, as to which semantic roles associated with applied arguments are more likely to be introduced by adpositions, and which by serial/secondary verbs.

3.2 Dedicated applicative marker on the verb?

So far, I have been discussing the privative opposition that Z and C posit for true applicatives: the verb in the base construction is not marked, but the one in the applicative construction is. (The equipollent marking, where the base verb and the applicative verb are marked in different ways, is something that Z and C set aside. I will not pursue it further, especially since there are no attested cases of the equipollent marking in transitives and applicatives.)

Two other issues that I would like to address have to do with inconsistent applicative marking and the role of agreement as applicative marking. With respect to the former, one can imagine that applicative marking may occur on a subset of verbs but not on others, thus leading to what may be called “masked applicativization”. As Dixon (2012: 301) states, some applicative derivations are found only with a subset of verbs, and it may well be that the overt applicative marker simply alternates with a silent one. I will return to this issue in Section 4, as I discuss some Tswana examples.

The other question raised by Z and C’s classification that is worth addressing has to do with the role of agreement as applicative marking. On the current classification, Z and C consider only those predicates that are overtly marked to be true applicatives. But the Tongan example shows that it is not always clear what the nature of the applicative marker is synchronically. In principle, valency alternations, of which applicativization is one type of instantiation, can be marked in a number of ways: via a dedicated verbal exponent, as in Z and C’s definition, via the indexing of verbal arguments (agreement, cliticization), via the incorporation of the internal argument (I will not discuss this last strategy here).

Finally, one may expect that the verbs in the base construction and the applicative construction are equally unmarked, that is, lacking an overt affix that sets them apart. The difference between the base and the applicative construction in such a case is solely determined by three-way comparisons: (i) between the base object and the applied object, (ii) between the object-like argument and a PP, and (iii) between the presence and absence of object (primarily in case of applicatives of intransitives). On such an approach, any construction that includes a dative/accusative argument could count as applicative (see Marantz 1993 for such a view). The downside is that we then lose the contrast between true ditransitives and applicative ditransitives, whose respective dative/accusative arguments do not always have the same properties (see, for example, Landau 1999). Further still, languages with the so-called symmetrical ditransitives (where the two objects behave alike in tests like passivization, pronominalization, scope, or sub-extraction) can vary in symmetry depending on the combination of semantic roles or subtypes of applicatives (see van der Wal 2017 for an insightful discussion and further references).

I will set aside the case where there is no marking whatsoever distinguishing applicative verbs from base verbs; doing so brings the position discussed here closer to that of Z and C and also allows me to flag the issues of “masked applicativization” and

“flexible symmetry”, in van der Wal’s terms. But I would like to offer some considerations on the requirement that the applicative-construction predicate have a dedicated applicative marking, as I find this requirement unnecessarily stringent.

Imagine a situation where the verb is not marked for applicativization but the added applied argument triggers agreement on the predicate; thus, the agreement patterns could look like this (Table 2):

Table 2: Agreement in base and applicative constructions.

	Base construction	Applicative construction
Agreement with only one object	Agreement with base object	Agreement with applied object
Multiple agreement	Agreement with base object(s)	Agreement with base and applied object

All it takes to separate the privative marking of applicativization from marking applicativization by agreement alone is the applicative marker being null. Amharic, which I already mentioned above, may illustrate the case in point, if we assume the analysis by Baker and Kramer (Kramer and Baker 2013; Baker and Kramer 2014), who argue that Amharic applicatives are marked on the verb by a unitary morpheme, which consists of a case marker plus a non-subject agreement marker of gender, number, and person. The evidence in support of this analysis comes from morphosyntactic properties of the applicative marker, which it shares with the regular object-agreement marker; namely, in clauses that contain both a main verb and an auxiliary verb, such an agreement marker attaches to the main verb; there can only be one non-subject agreement marker, and the object agreement marker and the applicative marker cannot co-occur, indicating that they compete for the same position. Applicative agreement, like regular object agreement, is possible only with semantically specific noun phrases and induces a semantic interpretation of emphasis. All these empirical observations suggest that Amharic may actually instantiate applicativization with agreement and no special marking; depending on how strictly one would like to apply Z and C’s marking criteria, the Amharic applicative may either be banished to the land of lookalikes or be used to expand the proposed typological classification. Verbal applicatives in Cushitic, discussed by Vanhove (this volume), also seem to be indexed by verbal agreement.

Cliticization may be another sign of an applicative construction, and it may again occur in the absence of dedicated applicative marking on the verb. For example, in Romanian, the beneficiary of a transitive can appear in the dative form either when it is cross-referenced by the clitic on the verb, or not, as shown in (10a) and (10b), respectively. Only when the recipient/beneficiary is cross-referenced by the clitic on the verb, as in (10a), does it have the properties of an argument, and it is structurally higher than the direct object, which is manifested in a number of morphosyntactic properties such as binding or scope (Diaconescu and Rivero 2007).

(10) Romanian (Cornilescu 2020: 123)

- a. *Mama le=a copt prăjituri copiilor.*
 mother.DEF 3PL.DAT=has baked cakes children.DEF.DAT
 ‘Mother has baked the children cakes.’
- b. *Mama a copt prăjituri copiilor.*
 mother.DEF has baked cakes children.DEF.DAT
 ‘Mother has baked cakes for the children.’

These empirical data suggest that in addition to dedicated applicative marking, the difference between base and applicative constructions can also be diagnosed by systematic differences in agreement and cliticization.

I will return to the relevance of dedicated applicative marking in the next section, where I address possible sources of the applied object.

4 Applied objects: Their source and structural size

In setting up the distinction between high and low applicatives, Pylkkänen (2000, 2008) argues that in high applicatives, the applied object stands in a relation to the entire event denoted by the predicate, whereas in the low type, the relationship between the applied and base objects is that of possession or inclusion. Setting aside the implementation of such an idea (theoretical models can differ widely), we still have a valid empirical observation: the referents of the two objects form a tight relation, which can be described as possession or a part–whole relation. Assuming that the referent of the base object denotes a possessed entity, the referent of the applied object can receive that entity (hence it can be goal, recipient, or beneficiary), be affected by the loss of that entity (malefactive, source), or stand in static possession of that entity (location, possessor).¹⁶ Given the tight relation between the referent of the base object and the referent of the applied object, it is not surprising to find an alternation between a possessor, which is a subconstituent inside a noun phrase denoting the base object, and a free-standing applied object. The former is present in the base construction, while the latter is found in the applicative construction.

Alternations of this kind (as well as the alternation between a possessor of S/A and a free-standing argument) are known in the linguistic literature under different terms. EXTERNAL POSSESSION is a common, and also theory-neutral term: a nominal is syntactically expressed as a dependent of a verb but is semantically understood as the posses-

¹⁶ The instrument and comitative can also be interpreted as being part of the possession/inclusion relation as long as this relation is construed as spatial, involving proximity between the two entities (see Landau 1999; 2007).

sor of one of its co-arguments in a clause (Deal 2017).¹⁷ POSSESSOR RAISING (or possessor ascension, a term that goes back to Relational Grammar) is one of the most common analyses of external possession. The idea is that the applied argument originates as a genuine possessor in one of the verbal arguments and then gets “promoted” (raised, advanced) to an independent argument position. The argument position may be that of subject (subject possessor raising) or that of object (object possessor raising). Such promotion may or may not be accompanied by special marking on the verb, and the case of the raised possessor can vary accordingly.

In their definition of applicativization, Z and C include the criterion according to which the applicative expression “either requires a non-core coding different from its coding in the [applicative construction] or cannot be expressed at all in the [base construction]”. The way I understand this definition, it allows for object possessor raising as a type of applicativization, because the possessor in the base construction appears in “non-core coding”. If one were to exclude external possession from the range of applicative constructions, the definition proposed by Z and C would have to be modified to exclude expressions that do not originate as verbal co-arguments.

The connection between external possession and applicativization is reinforced by the observation that quite a few languages use the same verbal exponent (if any) to mark genuine applicatives and external possessors. For instance, in Chickasaw, the addition of a dative argument is indexed by what seems to be the generalized applicative prefix on the verb (glossed as III in the literature on Muskogean), and this marker accompanies regular possessor raising and beneficiary applied objects. Thus, example (11) is ambiguous:

- (11) Chickasaw (Munro 1984: 640)
hattak-at iho-a chipota i-sho'ka-tok.
 man-SBJ woman-NSBJ child APPL-kiss-PST
 ‘The man kissed the woman’s child.’
 ‘The man kissed the child for the woman’s benefit.’

Thus, it may be desirable to include subcases of external possession under the rubric of applicativization. Adopting the classification of applied objects proposed by Z and C, and following their desideratum that the verb be marked, we can expect exter-

17 Creissels (to appear: Ch. 13), following Van de Velde (2020), proposes replacing the notion of an external possession construction with that of a concernee–concern construction, one that is broader in scope:

Two NPs in the construction of the same verb form a concernee–concern construction if the involvement of the referent of one of them (the concern) in the event denoted by the verb is determined by its syntactic role in the construction of the verb, whereas the involvement of the referent of the other one (the concernee) is simply a consequence of a relationship it has with the concern independently of the particular event referred to.

nal possessors qua applied objects to be encoded as D-applicatives (i.e., dative-like) or P-applicatives (i.e., preposition-like), and this applicativization is likely to be optional.

The Chickasaw example has an overt applicative marker, but what happens when such a marker is present only on some occasions? This issue goes back to the discussion that I started in Section 3.2. How does the on-off applicative marking interact with the requirement proposed by Z and C that having an applicative marker on the verb is a necessary condition on applicativization? Consider the Bantu language Tswana, which is featured prominently in this collection (see the chapter by Creissels, and also the chapters by Pacchiarotti and by Z and C). In Tswana, the construction with an external object possessor appears without verbal marking if the relationship between the base and applied object is part-whole or inalienable possession, but includes applicative marking in all other cases of external possession (Creissels, this volume; Creissels to appear: Ch. 14). Compare the following pair:

(12) Tswana (Creissels to appear: Ch. 14)

- a. *kì-rém-i-lé* *sí-t^hàrì* *dì-kà:là*.
 1SG.S/A-chop-PRF-FV SG-tree.CL17 PL-branch.CL10
 ‘I chopped (the) branches off the tree.’ (part-whole possession, no applicative marking on the verb)
- b. *Mp^hó* *’ó-dǝ-éts-í* *’kítsó* *dí-nà:wá*.
 Mpho(CL1) 1s/A.CL1-eat-APPL-PRF-FV Kitso(CL1) PL-beans(CL10)
 ‘Mpho ate Kiso’s beans.’ (alienable possession, applicative marking on the verb necessary)

It appears that when such verb-marking alternations are present in a language, it makes sense to group the entire construction under a single category — but that in turn makes one revisit the requirement of a dedicated applicative marker on the verb as a necessary condition on applicativization (see also the discussion in § 3.2).

So far, the examples I have discussed in this section showcased what applicatives are supposed to do: add an applied argument. However, the connection with possessors opens up another dimension of typological variation: a decrease in valency where the argument that could appear as an applied object is coded as the possessor of an internal argument. This anti-applicativization is found in Mayan languages where the beneficiary, recipient, and sometimes locative and source are expressed as possessors.

Details vary, but in broad strokes, the generalization for several Mayan languages is that prepositions introducing indirect arguments cannot combine with pronouns (nor can they combine with some nominals with determiners), which suggests that they take nominals of reduced structure (Pleshak 2022). As a consequence of the restriction against preposition-pronoun combinations, there are two ways of introducing pronouns into clausal structure: (i) as direct arguments (P-applicatives in Z and C’s terminology) or (ii) as possessors, which means that they are treated as a subconstituent of another argument. The former strategy is found, for example, in Tsotsil, where first- or second-per-

5 Conclusions

This chapter builds on the overview of applicative constructions presented by Z and C and proposes some refinements to their definition of the construction. Their operational definition includes three criterial properties: (i) applicativization alters the status of non-agentive/non-subject arguments; (ii) the predicate in the applicative construction has overt morphological marking that sets it apart from the base-construction predicate; and (iii) the applied phrase is “a noun phrase in a role other than S or A, . . . which refers to a participant that either requires a non-core coding different from its coding in the AC or cannot be expressed at all in the BC”.

While generally in agreement with these criteria, I have proposed some adjustments to these criterial properties. In particular, with respect to the non-A/S status of the applied argument, I have suggested combining applicativization and causativization, the two processes of nucleativization that Z and C treat as separate. While distinct applicativization and causativization are found in a number of languages, quite a few unrelated languages have generalized applicatives, ones that allow for causative-applicative syncretism.

The typological options we can anticipate depend on the way lines are drawn between two functions: the introduction of an object argument and the identification of the semantic role associated with that argument. The former function is carried by generalized applicatives (which can also be called unspecified nucleatives, following Z and C’s terminology). The identification of a particular semantic role associated with the applied object leads to the separation of applicativization and causativization.

Generalized and specialized applicatives can co-exist within a single language. Thus, the morphology of applicativization can range from syncretism (generalized applicatives) to what can be called extreme anti-syncretism whereby semantically different types of applicatives (benefactive, instrumental, locative, etc.) are marked distinctly. The question remains whether or not we should follow morphological marking, in which case the syncretic and non-syncretic options are to be held separate? On this approach, which can be thought of as “splitting”, the crucial assumption is that the two functions, that of adding an argument and that of interpreting it, are inexorably linked.

An alternative approach, which can be called “lumping”, relies on the assumption that grammar allows us to add an argument; the interpretation of that argument can vary widely, and we should not expect a one-to-one match between form and meaning.¹⁸ This is the approach I have advocated in this chapter. On this approach, the starting point is whether the operation in question adds an object to the syntactic structure. If the answer to this question is affirmative, the next question is whether or not the

¹⁸ See also Arkadiev and Letuchiy (2021: 507 ff.) for this option and the discussion of its cross-linguistic distribution.

semantic role of the added object is (fully) specified. If yes, we get a distinction between causatives and applicatives, with possible further distinctions within applicatives. If the role of the applied object is not specified, then we can speak of a generalized applicative. If no syntactic applied object is added, the construction is not applicative whatsoever but may allow for what Z and C refer to as X-applicatives. The chart in Table 3 illustrates the criteria for the lumping approach and the results this approach predicts.

Table 3: Separating the functions of argument addition and semantic-role marking.

	Object argument added	No new argument added
Role of applied argument specified	Applicative, causative	X-applicatives, D-applicatives
Role of applied argument not specified	Generalized applicative	

The recognition of the causative-applicative syncretism raises at least two questions that I would like to flag here. The first has to do with agentivity of the causee role. Z and C's rationale for separating causativization from applicativization may stem from the need to maintain the non-agentive interpretation of the applied object; causee on the other hand is agentive, interpreted as S or A. At the same time, many discussions of causative constructions suggest that the causee role is inherently less agentive than that of a prototypical agent/causer; after all, the event in which causee appears as S or A is instigated by another participant, and causee may share properties with a comitative or patient. Considering causatives in the context of applicatives may allow us to better understand the properties of causees.

The second question has to do with the predictability of a particular interpretation when a generalized applicative is used. In some languages, the choice of the causative vs. applicative interpretation is lexically determined, being associated with a particular verb or subclass of verbs. Cataloguing lexical restrictions is an important empirical task. In some other languages, one and the same verb can receive the causative or applicative interpretation, and factors that determine the choice of a particular interpretation are yet to be understood.

Turning to the overt morphological marking of applicatives, we observe that the applicative exponent on predicates may not always show up even within a single language; it can be present only on some predicates but not on others. Furthermore, we find that it is sometimes difficult to separate verbal exponents with a non-applicative function from those that are specifically intended to mark applicatives. Finally, giving equal weight to property (ii) on par with the other properties runs the risk of missing some data from morphologically impoverished languages. Thus, the question of the overt marking that signals applicativization on predicates may need more scrutiny.

With respect to the status of the applied argument in the base construction —criterial property (iii) mentioned above—, my proposal is to include constructions with an external object possessor (object possessor raising constructions) in the range of applicatives. Such constructions often have the same verb marking as applicative constructions proper. Including external possessors among applied objects also captures the observation that the referents of the original (base) and applied object are understood to be in a semantic relationship that resembles possession or inclusion.

Abbreviations

ABS	absolute
AOR	aorist
APPL	applicative
CAUS	causative
CL	noun class
CLF	classifier
COMPL	completive
DAT	dative
DEC	declarative
DET	determiner
ERG	ergative
FV	final vowel
INCOMPL	incompletive
IND	indicative
INS	instrument(al)
NOM	nominative
NSBJ	non-subject
OBJ	object
PFV	perfective
PL	plural
POSS	possessive
POT	potential
PRV	preverb
PST	past
RES	resultative
SBJ	subject
SG	singular
VAL	valency morpheme
VERS	versionizer
VIS	visible / speaker's area

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George Moroz and Maria Polinsky

30 Applicatives cross-linguistically: Features and distribution

Abstract: This chapter constitutes an update on the overview chapter on applicative constructions that appeared in the World Atlas of Language Structures (Polinsky 2003, 2013). The update has been possible thanks to the novel empirical material represented in the current handbook and to new descriptive and theoretical work on applicatives that has appeared since the compilation of the original atlas. The chapter includes a static map showing the distribution of main values in applicatives and a link to the corresponding dynamic map. The values reflected in the map include the main semantic roles of the applied object (we distinguish between the beneficiary, as the most common role, and everything else) and transitivity of the base (transitive, intransitive, or both). The most common type of attested applicative constructions is the one where applicatives of different roles are formed from both verbal bases, transitive and intransitive. We also show several values that are unattested. The chapter concludes with a brief discussion of current approaches to applicative constructions.

1 Introduction

This chapter constitutes an update on the chapter originally submitted to the World Atlas of Language Structures, WALS (Polinsky 2003, 2013), building both on the rich material represented in this handbook and on new descriptive and theoretical work on applicatives that has appeared since the compilation of the original atlas. In light of the growing work on applicatives, some of the data points presented in the WALS chapter could be revised, to reflect the improved and expanded empirical base of applicatives. For instance, Mapudungun (Mapuche) was represented in WALS as lacking applicatives; however, as Zúñiga (this volume) convincingly shows, it does have an applicative construction. In general, the data presented in this chapter supersede the WALS maps.

On the research side, several overviews and analytical treatments appeared after the publication of the WALS chapter, in particular, Georgala (2012), McGinnis (2008, 2017), Peterson (2007, 2019), Pykkänen (2008). Some of the current approaches to applicatives are sketched in Section 4 of this chapter.

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Following the definition by Zúñiga and Creissels (this volume), applicativization relates two constructions, the base construction (BC) and the applicative construction (AC) in the following way: (i) the predicates in both constructions are built upon the same root, but the one in the AC bears additional overt marking that distinguishes it from the one in the BC; (ii) the participant encoded as S or A in the BC appears as S or A in the AC; and (iii) the AC includes an applied phrase (AppP), which refers to a participant that either requires a non-core coding in the BC different from its coding in the AC or cannot be expressed at all in the BC.

For example, in *Tukang Besi* (Austronesian; Sulawesi, Indonesia), the verb ‘fetch’ takes one theme object in the basic construction (as shown in [1a]), but with the applicative marker it takes two objects, theme and beneficiary (as shown in [1b]).

- (1) *Tukang Besi* (Donohue 1999: 256)
- a. Basic construction, two-place predicate
no-ala te kau
 3.REALIS-fetch the wood
 ‘She fetched the wood.’
 - b. Applicative construction, three-place predicate
no-ala-ako te ina-su te kau
 3.REALIS-fetch-APPL the mother-my the wood
 ‘She fetched the wood (as a favor) for my mother.’

The term *APPLICATIVE* is used to denote either the applicative construction or the verb in that construction. The term was first used by early Spanish missionary grammarians in the description of Native American languages, in particular Uto-Aztecan; it was later adopted by Bantuists and is now used for similar constructions all over the world, although a popular perception of applicatives is primarily tied to these language families.

It is customary to restrict the designation *APPLICATIVE* to those cases where the addition of an object is overtly marked on the predicate (see Zúñiga and Creissels, this volume), which why English pairs such as *she baked a cake* vs. *she baked Oscar a cake* typically do not count as basic-applicative alternation (but see Zúñiga, Arkadiev and Hegedűs, this volume, and Polinsky, this volume, for further discussion). And in fact, there are clear instances where the derived applied object is different in its grammatical properties from the underived one, as in dative-object or double object constructions.

In contrast to other valency-changing alternations, applicativization is typically marked by an affix on the predicate, and does not involve reduplication, deletion of verbal morphology, ablaut, or stress shifts (see Dixon 2012: 301). However, the stem alternations observed in Otomanguean languages (Hernández-Green and López Nicolás, this volume) may present a counterexample to this observation.

Difficulties in identifying applicatives on the basis of verbal marking may arise as in a number of languages, some verbs can be overtly marked as applicative and others, are not, thus creating what can be called “masked applicatives”, lexicalized applicatives, or deponents (see Zúñiga and Creissels, this volume). All told, we face the situation with applicative which may be described as “now you see it, now you don’t”. Some chapters in this volume address this issue by introducing the distinction between obligatory and optional applicatives. In mapping out the applicatives, we have adopted a more conservative approach, relying on reports that identify at least some verbal marking; we have also chosen to exclude clearly lexicalized occurrences and some constructions that are still under debate (for example, locative-object verbs or relational verb constructions of Algonquian — see Lockwood and Macaulay, this volume).

In terms of typical semantic roles associated with more specialized applicatives, the most common role is that of beneficiary. This role of the applied argument is often close to or get collapsed with goal, recipient, maleficiary (some researchers group all four under the rubric of goal or recipient, consider Dixon 2012: Ch. 25). The other common roles include instrument; comitative/sociative; location, broadly understood, and substitutive (a participant on whose behalf the action is performed). A number of terms have been proposed for the latter, including “deputative beneficiary” (Van Valin and LaPolla 1997) and “surrogate” (Zúñiga 2014).

Comitative/sociative applicatives formed from intransitives seem to be particularly common in languages of Australia (see Austin, this volume). Comitatives and substitutives are quite common in applicatives of intransitives, consider a comitative applicative in Mapudungun and a substitutive/surrogate applicative in Kinyarwanda (3):

- (2) Mapudungun (Zúñiga, this volume)

Amu-ye-fi-n *ñi* *wenüy*.
 go-APPL-3.OBJ-1SG.SBJ.IND 1SG.PSR friend
 ‘I went with my friend.’ (comitative)

- (3) Kinyarwanda (Maria Polinsky, field notes)

Umugabo *a-ra-geend-er-a* *umugóre*.
 man 3SG-PRES-travel-APPL-ASP woman
 ‘The man is travelling instead/on behalf of the woman.’ (substitute)

The applicative derivation can also add causee and possessor as separate arguments, but there is less consensus among researchers as to whether or not these arguments should count as applied or not (see Polinsky, this volume, for more discussion).

Some languages have dedicated markers for different roles (consider the discussion of “applicative arrays” in Dixon 2012: 312–315, and see Beck, this volume, on

Totonac, which has a rich array of dedicated applicative markers),¹ whereas others group many roles under the GENERALIZED APPLICATIVE, which is a syncretic exponent used to add an argument with a variety of interpretations. If different exponents are used to index different semantic roles, we commonly find a contrast between beneficiary (often with the associated meanings of goal and recipient), location, and instrument/comitative.

Generalized applicative and dedicated applicative markers can co-occur in a single language, as for example, in Ktunaxa (Gatchalian, submitted), or Uto-Aztecan languages (Álvarez González and Estrada Fernández, this volume; Thornes, this volume). Variation is observed even in such “classic” applicative languages as Bantu languages; for instance, Pacchiarotti (this volume) writes:

Languages where the applicative is obligatory on a root-by-root basis to introduce any given set of semantic roles except Agent (and occasionally Instrument) have a very restricted set of prepositions or no prepositions at all, e.g., the Chaga E60 language group. . . . Languages with optional applicative constructions usually have a fairly developed system of prepositions, but the applicative might still be obligatory with certain verb roots to introduce certain semantic roles, e.g. Mon-go-Nkundo C61.

Languages also vary depending on whether or not more than one applicative marker can be used within a single verb. Applicative stacking is not uncommon (see § 4.3 below); it is found in Bantu (Creissels, this volume; Pacchiarotti, this volume), Kartvelian (Tuite, this volume),² Northwest Caucasian (Arkadiev, Lander, and Bagirokova, this volume), Mapudungun (this volume), Totonac (Beck, this volume), just to give a few examples.

2 Definition of map values

At the time the original WALS maps were created, the editors of the Atlas asked the authors of individual chapters to survey a list of about two hundred languages, mapping the relevant feature in that sample. As a result, the WALS applicative atlas divided languages into those that have applicative constructions and those that do not. In this chapter, we adopt a different approach, mapping only those languages which have been claimed to have applicative constructions. Languages that are not on the map may therefore be excluded for two different reasons: either they genuinely lack applicatives or no definitive data to this point are available. We believe that this approach is more appropriate at the present stage of our knowledge; as new languages with applicatives are found, they could be added to the current map.

¹ In mapping languages with multiple dedicated applicatives, we used the option “Benefactive and other roles”. The semantics of individual roles indexed by applicative markers tends to be quite fluid, so grouping them all together appears to be a descriptively safe option.

² Tuite refers to applicative stacking as “double applicatives”.

Two main parameters in which applicatives vary cross-linguistically include the transitivity of the base and the semantic role of the applied object. The map presented in this chapter reflects the values of these parameters.

With respect to the TRANSITIVITY OF THE BASE, the main distinctions are between applicatives formed (i) from a TRANSITIVE BASE ONLY, (ii) from an INTRANSITIVE BASE ONLY, and (iii) from BOTH BASES (these distinctions are shown by different shapes of the symbols on the map). There are also constraints on the number of arguments of the base verb; they are not shown in the map because they are harder to determine on the basis of grammars.

With respect to the SEMANTIC ROLES OF THE APPLIED OBJECT, the most common role of the applied object is that of beneficiary (sometimes also associated with recipient/goal). Accordingly, the map differentiates applicatives whose applied object (i) is LIMITED TO BENEFICIARY; (ii) corresponds to the BENEFICIARY AND SOME OTHER ROLES; (iii) corresponds to OTHER ROLES TO THE EXCLUSION OF THE BENEFICIARY. These distinctions are shown by the different colors of the symbols on the map.

Of nine logically possible values, six are actually attested. We summarize all the options in Table 1 (we also include the unattested values), with each cell showing the number of languages instantiating that particular option:

Table 1: Main values in the distribution of applicatives.

	Verb base		
	Intransitive	Transitive	Both intransitive and transitive
Benefactive object only	Unattested	Attested (24)	Attested (32)
Benefactive and other objects	Unattested	Attested (5)	Attested (68)
Non-benefactive object only	Attested (2)	Unattested	Attested (13)

With respect to the unattested values, it remains to be seen if they are not found for principled reasons or for lack of data. We return to some of the reasons behind lack of attestation in Section 4.2.

The static map below (Figure 1) presents all the attested values in their geographical distribution; the attested numbers shown in Table 1 are also included. The map was created with R (R Core Team 2022) package *lingtypology* (Moroz 2017). The dynamic version and raw data are available at: https://lingconlab.github.io/supplementary_applicative_constructions/; the language data on the dynamic map also include their genetic affiliations. While the static map has to remain as is, the dynamic map can be updated with new or corrected data (directly on github https://github.com/LingConLab/supplementary_applicative_constructions/issues/new or by emailing the authors of this chapter).

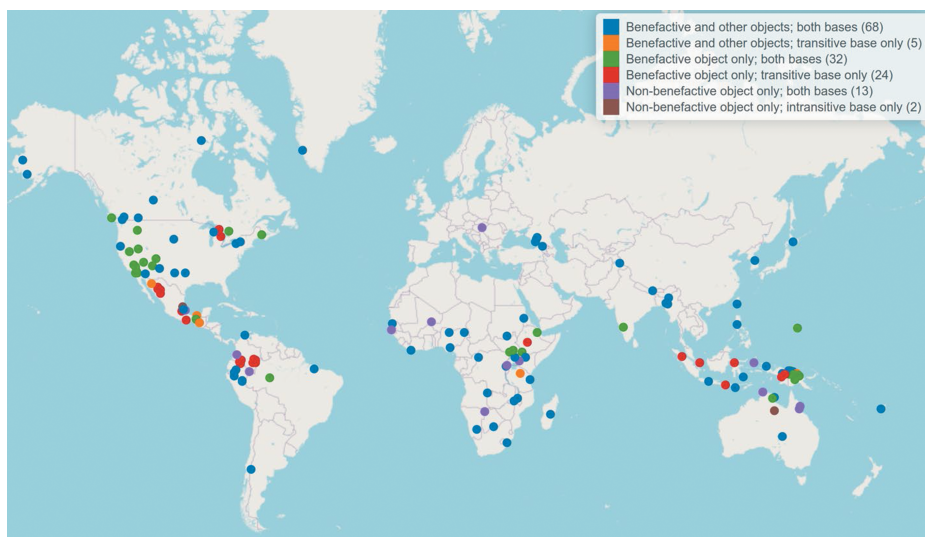


Figure 1: The crosslinguistic distribution of applicative constructions.

3 Areal and genetic distribution of applicatives

Applicatives are common in three geographical areas: Africa (mostly in Bantu), the western Pacific region (Austronesian), and North and Meso-America (Salish, Mayan, Uto-Aztecan). The main generalization seems to be that applicatives are commonly found in those languages that have little or no case-marking of noun phrases in a clause and that have sufficiently rich verbal morphology to mark applicative formation on the predicate. There may be a weak correlation between the use of the applicatives and impoverished nominal marking; this would account for what can be called typical applicative languages, such as Bantu, but it is still worth noting that not all languages with applicatives lack nominal morphology — consider Kartvelian, where rich verb morphology coexists with rich nominal marking (see Tuite, this volume).

4 Linguistic puzzles related to applicatives

Applicative verbs and constructions have generated a significant amount of research dealing with the morphosyntax of applicatives, transitivity, VP structure, distinct object relations, argument structure, and mapping from argument to syntactic structure. For an overview of theoretical issues, see Alsina (1996), Alsina and Mchombo (1993), Peterson (1999, 2007, 2019), and McGinnis (2008, 2017).

4.1 Transitivity of the base

The intransitive base of applicatives is less common than the transitive base. This is quite clear from the map; few languages in the sample that form applicatives exclusively from the intransitive base (see Table 1 and Figure 1). The overall tendency is that if a language has applicatives formed from the intransitive base, it also has applicatives formed from the transitive base.

The following explanation may be offered as to why the applicative is uncommon with intransitives. Adding an object to an intransitive base amounts to creating a transitive verb. In order to transitivize an intransitive, languages typically use causativization, thus increasing the complexity of the event structure ($V > \text{CAUSE } V$); with the applicative, the event structure is not modified, just another participant is added. Under causativization, the argument added to the argument structure of the verb is agent; under simple transitivization, the added argument is theme (or patient). Note that applicative formation results in adding arguments other than agent and theme, and may thus be constrained by the general hierarchy of semantic roles (see, among others, Dowty 1991; Baker 1998; Primus 1999; Levin and Rappaport Hovav 2005):

- (4) agent > theme (patient) > goal (recipient, beneficiary) > location > other roles

Although the constraint on applicative formation from intransitives seems not to be absolute, a particular subset of intransitives, namely unaccusative predicates (those whose subject originates as an object in the underlying structure), resist applicativization (see Baker 1998). However, even this generalization does not hold in some languages, for instance, in Halkomelem (Gerds 1988 and this volume), Lai (Peterson 2007) and Sesotho (Machobane 1989), which suggests that it is just a strong tendency.

4.2 Morphosyntax

In applicatives derived from the transitive base, the question arises which object, basic or applied, has more object-like properties, which can point to its being structurally superior. Three possibilities can be anticipated:

- (5) a. the base object and the applied object have same/similar grammatical properties
 b. the applied object has more object properties than the base object
 c. the base object has more object properties than the applied object

In some languages both objects, basic and applied, are accessible for passivization and relativization, can bind a reflexive, can trigger agreement on the verb, or can license coreferential deletion across clauses. Such languages are called “symmetrical”, instantiating scenario (5a). In other languages, only one object, either applied or basic, can

show the relevant grammatical behaviors. Such languages are called “asymmetrical”, instantiating options (5b) and (5c).

Thanks to the influential work by Bresnan and co-authors (Bresnan and Mchombo 1987; Bresnan and Moshi 1990), the symmetrical-asymmetrical distinction has been tested primarily in Bantu languages. A number of chapters in this handbook explore it with respect to other languages, demonstrating a common tendency for object asymmetry. Furthermore, more recent work on Bantu suggests that treating individual languages as symmetrical or asymmetrical leads to missed generalizations because symmetry and asymmetry may co-occur within the same language, with respect to different verb classes or object types (van der Waal 2017).

The morphosyntax of applicatives and object asymmetries can be captured under Baker’s (1988) approach to incorporation. According to Baker, applicative formation is the result of the incorporation of a preposition into a verb — thus, what appears to be an applicative affix starts out as an adposition introducing an oblique object. The oblique becomes an object following adposition incorporation. This account fits well with the observation that many (but not all) applicative markers originate as adpositions, and may also explain the empirical generalization that applicatives are not marked via reduplication, stress shift or stem reduction (but see § 1 for possible exceptions).

In exploring the syntax of applicatives, Pykkänen (2008) proposes a dedicated functional head, ‘Appl’, which can be merged in different places in the structure, namely, high and low, hence the distinction between high and low applicatives. When the applicative head is added to the structure low, inside the verb phrase, it serves a particular function of relating the two objects, the base object (patient) and the applied one; very often this is the relationship which can be captured in terms of possession/inclusion, transfer, or affectedness of the applied object. This explains the common association between applicativization and transitive base, and the common albeit not obligatory benefactive interpretation of the applied object (the subscripts on the object denotations in (6) indicate the semantic roles):

- (6) [_{VP} V [_{ApplP} APPLIED OBJECT_{BEN} [_{Appl} Appl [BASE OBJECT_{PATIENT/THEME}]]]]

In high applicatives, the Appl functional head is added outside (above) the verb phrase, and the applied object is causally connected to the entire eventuality denoted by that verb phrase, not to the object inside that verb phrase. Accordingly, high applicatives can occur with intransitive predicates which do not introduce an object or with transitive verbs where no clear semantic relation between the two objects is presumed. The structure is as follows (by putting the base object in parentheses we indicate that it is not always present in this structure).

- (7) [_{ApplP} APPLIED OBJECT [_{Appl} Appl [_{VP} V (BASE OBJECT)]]]

The structure in (7) allows for a variety of semantic roles associated with the applied object, as long as this object can be construed as associated with the entire event (as a location, associate, etc.).

Pylkkänen's analysis has been criticized on semantic grounds, primarily because it does not establish a stronger connection between the event expressed by the low applicative and the possession (Larson 2010). On the structural side, however, this account has been influential and predictive with respect to argument properties of the applied object. It is worth noting that Pylkkänen's account predicts that low applicatives would occur with transitive bases, and that benefactive would be particularly common among such applicatives. This is confirmed by the attested cross-linguistic distribution (see the map in Figure 1 and also Table 1).

4.3 Multiple applicatives: Applicative-marker stacking

The view of applicative formation as preposition incorporation has played an important role in approaches to *applicative morphology*. The basic idea is that morphological derivations must directly reflect syntactic derivations (and vice versa) (Baker 1985; Alsina 1999), and this isomorphism should be reflected in affix ordering (so-called Mirror Principle). Crucial evidence for the Mirror Principle has been drawn from the interaction between applicative morphology and morphology of other morphosyntactic operations (passive, reciprocal) in Bantu.

Instances of multiple applicative marking and multiple applied objects are found in Bantu languages, *Tukang Besi* (and possibly other Austronesian languages), and North-west Caucasian languages (Arkadiev, Lander and Bagirokova, this volume; O'Herin 2001).³ In *Cahuilla*, applicative formation is achieved either via prefixation (for adding a locative object) or via suffixation (for adding a beneficiary/recipient), which suggests that the diachronic origin of these markers may be different. In those cases where identical applicative morphemes allow iteration, as in Bantu, it is unclear whether their number is constrained by grammar or by processing limitations.

4.4 Semantics of the applied object

It is sometimes hard to tell from grammatical descriptions whether the beneficiary is differentiated from the recipient/goal, or other common roles associated with the applied object. It is also unclear how many languages merge the beneficiary and the malefi-

³ *Koyraboro Senni* is another language with multiple-applicative marking mentioned in Polinsky (2013), whose data were based on Heath (1999: 168–169). However, a closer examination of this language suggests that it may actually lack applicatives (Denis Creissels, p.c.), so we do not include it in the list presented here.

ciary (i.e., the adversely affected object), and whether their separation or their merger is more typical. In addition, the applied object can be mapped onto a possessor, whose place in the hierarchy of semantic roles is not quite clear (see Polinsky, this volume, for more discussion of the possessor role in applied objects). The beneficiary, the goal, and the possessor are typically animate participants, which may create an impression that the applied object has to be an animate participant. Indeed, in some languages (e.g., Halkomelem) the referent of the applied object must be animate regardless of its semantic role (Gerdtz 1988, 1993, and this volume). In some languages, e.g. Kinyarwanda, the linear order of the base and applied object varies depending on animacy (Kimenyi 1988; Polinsky 1995); animacy plays a big role in the structure and interpretation of Algonquian applicatives (see Lockwood and Macaulay, this volume; Rhodes 2010). For a more detailed discussion of semantic roles of the applied object, see Zúñiga and Creissels (this volume) and Dixon (2012: Ch. 25).

Abbreviations

APPL	applicative
ASP	aspect
IND	indicative
OBJ	object
PRES	present
PSR	possessor
SBJ	subject
SG	singular

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31 Applicative and related constructions: Results and perspectives

What distinguishes this chapter from the other survey chapters (the introductory chapter, Chapter 29 by POLINSKY and Chapter 30 by MOROZ & POLINSKY) is that it summarizes the important points of the case studies that constitute this book in the perspective of the typology of applicative and related constructions. Its structure reflects that of the questionnaire, and it is basically conceived as a guide for readers looking for precise information on particular aspects of applicative constructions, with the help of which they will be able to select the case studies particularly relevant for the questions in which they are interested. However, we cannot possibly summarize here in an appropriate way all noteworthy features unearthed, systematized, or called into question by the authors of the individual chapters. Instead, we concentrate on some of the most interesting findings related to the non-canonical features of applicatives, as well as to the lookalikes.

1 Morphology

As regards possible interactions between applicative marking and the structure of verb inflection, the general rule is that applicative marking does not affect the inflectional possibilities of verbs. However, HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS mention that, in Old Otomi, the goal applicative seems to have involved a reduced TAM paradigm, and an extreme case of reduction of the inflectional possibilities of applicativized verbs is signaled by VAN GIJN for Kakua. In this Amazonian language, verbs have a benefactive imperative whose syntactic properties meet the definition of applicativization, but the benefactive counterpart of the imperative has no equivalent of the other forms that constitute the TAM paradigm of Kakua verbs.

Two of the chapters that constitute this book analyze languages characterized by a complex morphophonological interaction between applicative marking and verb inflection: GERDTS on Hul'q'umi'num' and JACQUES AND LAHAUSOIS on Kiranti languages. In Kiranti languages, it is common that morphophonological processes result in neutralization of the distinction between applicative and non-applicative verb forms.

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Systems of applicative marking involving complex stem alternations are found in Otomi (HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS), in some Bantu languages (PACCHIAROTTI), and in Western Nilotic languages (PAYNE).

Regarding morphological issues, readers are invited to bear in mind that the present book is clearly biased, in the sense that non-affixal applicative markers are under-represented here. Only a few chapters address applicativization via verb compounding (FOLEY for Papuan), verb compounding and auxiliaries (JACQUES AND LAHAUSOIS for Kiranti), applicativizing particles (ZÚÑIGA, ARKADIEV, AND HEGEDŰS for Germanic, Baltic, Slavic, and Hungarian), or applicativizing particles and auxiliaries (VANHOVE for Cushitic).

Serial verb constructions functionally equivalent to applicative constructions are mentioned by FOLEY for some Papuan languages, by MONTGOMERY-ANDERSON for the Mayan language Tojolabal, and by PACCHIAROTTI for Grassfields Bantu languages. Possible vestiges of an applicative periphrasis are also signaled by ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ in the Uto-Aztecan language Yaqui.

Among the cases of non-affixal applicative marking discussed in this book, the grammaticalization of a verb ‘say’ in periphrastic applicatives, discussed by VANHOVE for Cushitic languages and also noted in Amharic by AMBERBER, is worthy of mention, since this use of ‘say’ is uncommon (if attested at all) outside of the Ethiopian area.

We address the cross-linguistically common fact that applicative markers may encode other types of morphologically-oriented valency alternations in Section 5 below.

2 Syntax

2.1 Constraints on the transitivity properties of the base construction

The languages whose applicative constructions are investigated in this book illustrate all possible configurations as regards the conditioning of applicativization by the transitivity properties of the BC: some applicative markers only operate on intransitive BCs, some others only on transitive BCs, and still others operate indiscriminately on intransitive and transitive BCs. For example, Hul’q’umi’num’ has two applicative markers attaching exclusively to intransitive verbs and two other attaching exclusively to transitive verbs (GERDTS). By contrast, the transitivity properties of the BC play no role in the conditioning of applicativization in the Bantu language Tswana (CREISSELS).

2.2 Optional vs. obligatory applicatives

Optional applicatives are generally acknowledged to be widespread, and we do not dispute that; in some language groups they are either the only or the predominant type,

as mentioned by AUSTIN for Australian and by McDONNELL AND TRUONG for Western Indonesian.

Several chapters show, however, that obligatory applicatives are by no means marginal from a cross-linguistic perspective. PACCHIAROTTI and CREISSELS confirm this for Bantu, VOISIN AND CREISSELS for Atlantic languages, PAYNE for Nilotic, FOLEY for Papuan, GERDTS for Salishan, THORNES and ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ for Uto-Aztecan, HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS for Otomi and Zapotec, VAN GIJN for Tukanian languages and ZÚÑIGA for Mapudungun, as well as MONTGOMERY-ANDERSON—albeit with some reserves due to the scarcity of data in several cases—for Mayan.

The data analyzed in some chapters show that applicatives apparently analyzable as optional are in fact obligatory applicatives. For example, the mechanism found in Tswana (CREISSELS) according to which some motion verbs assign the role of Source of motion to locative expressions in their base form, and the role of Destination in their applicative form, could be analyzed superficially as optional applicative marking in the presence of a locative expression. However, since the verbs in question in their base form simply cannot combine with a locative expression expressing the role of Destination, and cannot combine with a locative expression expressing the role of Source in their applicative form, the only possible analysis is that this is a case of obligatory applicativization of the redirecting type.

Several other chapters discuss situations in which applicative constructions carry semantic nuances that may make it difficult to classify them as optional or obligatory, since it is not always obvious whether the nuances in question should be analyzed as involving a difference in the semantic roles expressed by the BC and the AC. However, at least in some cases, a thorough analysis of the semantic roles assigned by the base form and the applicative form of a verb leads to the conclusion that applicatives that at first sight look like optional applicatives are in fact obligatory applicatives.

A consequence of this situation for a general typology of valency operations is that it may make sense to treat optional applicatives and obligatory applicatives as two distinct types of valency operations, but the still widespread view according to which optional applicatives are the canonical variety of a type of valency operation that includes obligatory applicatives as a non-canonical variety must definitely be abandoned, since the cross-linguistic distribution of these two varieties of applicatives provides no justification for regarding optional applicatives as canonical, and obligatory applicatives as non-canonical, rather than the other way round.

Tswana (CREISSELS) illustrates the extreme case of a language having only obligatory applicatives, i.e. a language in which all applicative constructions are straightforwardly conditioned by the impossibility of expressing the semantic role expressed by the applied phrase in an alternative construction with the same verb in its non-applicative form. An even more extreme case is that of the languages whose situation can be characterized in terms of across-the-board applicativization (see § 2.3 below).

In the languages analyzed in this book, it is not uncommon that the same applicative marker appears in constructions that differ in their status as obligatory or optional

applicatives. For example, in Jóola Fóoñi (VOISIN AND CREISSELS), applicative constructions involving the same applicative marker *-úm* are obligatory if the applied phrase expresses the roles of Path (perlative) or Means (mediative), but optional with applied phrases expressing the roles of Instrument or Cause. Similar facts are mentioned by PAYNE in Nilotic languages, and by FOLEY in the Papuan language Yimas, where the ACs involving the applicative marker *tan-* are obligatory if the applied phrase expresses the role of Beneficiary, but optional if the applied phrase expresses the role of Companion.

The data analyzed in this book also show that applicative constructions may have an ambiguous status with respect to the distinction between obligatory and optional applicatives, in the sense that, for example, an applicative construction that is optional in pragmatically neutral, affirmative, clauses may become obligatory in some other types of clauses.

Such a situation is described by HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS in Northern Zapotec, where ACs that are optional in pragmatically neuter clauses are obligatory in most adjunct extraction constructions (interrogation, relativization, focalization) in which the phrase optionally coded as an applied phrase in the corresponding pragmatically neutral clause moves to a preverbal position.

Similarly, PAYNE signals that, in the Western Nilotic language Shilluk, the instrumental applicative is required if a non-core argument is focused in preverbal position.

In Wolof (VOISIN AND CREISSELS), the applicative construction in which the applied phrase expresses the role of Companion (comitative applicative) differs from the other applicative constructions found in the language in that it is impossible in pragmatically neuter clauses, but obligatory if the participant fulfilling the role of Companion is focalized, questioned, or relativized.

2.3 Across-the-board applicativization

In languages that have obligatory applicatives, the participants that cannot feature as core syntactic terms in clauses projected by non-applicative verb forms divide into those that can be coded as obliques without any special verbal marking and those that can only be coded as applied phrases in an applicative construction. For example, in Tswana (CREISSELS), Beneficiaries are coded as applied objects, whereas Instruments are coded as prepositional phrases whose presence has no effect on verb morphology.

The question that arises is whether there are languages making a particularly systematic use of the obligatory applicativization strategy, in which the coding of non-core participants as obliques able to combine with the base form of the verb would be marginal, or even completely inexistent. Interestingly, this book includes a language (Toba/Qom) providing a perfect illustration of this possibility, and another (Upper Necaxa Totonac), whose situation is less extreme, but nevertheless quite close to across-the-board applicativization.

As described in detail by CENSABELLA, Toba/Qom has a wide array of semantically specific verbal affixes occurring in obligatory applicative constructions, and applicativization is the only available strategy to encode semantic roles other than those licensed as subjects or objects of non-applicative verb forms.

Contrary to Toba/Qom, Upper Necaxa Totonac (BECK) does not have locative applicatives and expresses static location by means of a locative proclitic, but the other semantic types of participants that cannot be coded as subjects or objects of non-applicative verb forms can only be introduced via applicativization

Among the other languages surveyed in this book, the Papuan language Barupu shares with Toba/Qom the total lack of NP flagging by means of either case affixes or adpositions, and makes extensive use of applicativization (FOLEY). However, in Barupu, the serialization strategy is also productive, and the distinction between serialization and applicativization is not clear-cut, since some of the applicative markers have an obvious verbal origin and still “very much look like verbs due to their inflections”.

2.4 Maintenance vs. demotion of base Ps in P-applicative constructions (transitivizing vs. redirecting applicatives)

Another syntactic issue of interest is the variation with respect to the status of the non-S/A arguments in the applicative construction. The earlier literature has already noted the existence of different kinds of P-applicatives in that some are TRANSITIVIZING (or “valency-increasing”) while others are REDIRECTING (sometimes termed “remapping”, “redirective”, or “valency-neutral”); while the former are simply promotional, the latter necessarily combine the introduction of an applied P with the demotion of any base P (see Zúñiga and Creissels, this volume). Both possibilities are well attested in this book.

2.4.1 P-applicatives from transitives in languages that have double-P constructions

In the languages in which double-P constructions are attested with underived verbs, the general rule is that P-applicatives are transitivizing, and it may even happen that applicatives from ditransitives are constructions of a type not found with underived verbs, with three terms coded like monotransitive Ps, as reported by ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ for the Uto-Aztecan languages from Northwestern Mexico, by PAYNE for the Nilotic language Maasai and by CREISSELS for Tswana.¹

¹ What is at issue in this and the following sections is in fact not a relation to (mono)transitive typology, but to ditransitive typology, namely dependency of applicative constructions on the indirective vs. neutral vs. secundative alignment, a topic addressed by Malchukov (2017).

In the languages in which base Ps can be maintained in P role in P-applicative constructions, it must be taken into consideration that double-P constructions are rarely if ever perfectly symmetrical. Several chapters dealing with languages in which base Ps are maintained in P role in applicative constructions discuss the extent to which, in applicatives from transitives, base Ps and applied Ps manifest the properties typical for monotransitive Ps (such as accessibility to the role of A/S in passive constructions); see, among others, ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ, VAN GIJN, and CREISSELS.

The situation is not uniform across the languages for which the question of asymmetries in double-P constructions resulting from applicativization is discussed. However, situations in which base Ps are treated as less-privileged Ps in the applicative construction seem to be particularly frequent, the applied P taking the role of syntactically privileged P (see in particular the discussion in THORNES's chapter on Northern Uto-Aztecan languages). This is probably related to the general preference for animate applied Ps, since, more generally, animacy seems to play a crucial role in the distinction between syntactically privileged and less-privileged Ps in the languages that have double-P constructions. See, among others, Woolford's (1993) observation that, in asymmetric double-P constructions of 'give' verbs, the syntactically privileged P in passivization is always the Recipient, and Malchukov, Haspelmath, and Comrie's (2010) observation that 'give' verbs "normally have an animate R and inanimate T".

Among the languages in which base Ps in applicatives from transitives are maintained in P role, the possibility of triple-P constructions resulting from applicativization of double-P BCs is mentioned among others for the Uto-Aztecan languages from Northwestern Mexico (ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ), for Tswana (CREISSELS) and other Bantu languages (PACCHIAROTTI), and for Nilotic languages (PAYNE). In Upper Necaxa Totonac, the stacking of applicative and causative markers may yield constructions with up to five phrases coded like monotransitive Ps (BECK).

2.4.2 P-applicatives from transitives in languages that do not have double-P constructions *stricto sensu* but have a grammatical relation "secondary object"

Algonquian languages (LOCKWOOD AND MACAULAY) have a class of bivalent verbs with which the non-subject argument fulfills a syntactic role O2 distinct from both the syntactic role O1 that characterizes the non-subject argument of typical transitive verbs and from oblique roles. Interestingly, in the coding frame of trivalent verbs such as 'give', the Recipient is coded as O1, and the Theme as O2, and in P-applicatives from transitives, the O1 role is taken over by the applied phrase, whereas the base O1 is demoted to O2, which constitutes a particular type of redirecting applicative.

A situation similar to that of Algonquian languages is described by ZÚÑIGA for Mapudungun.

2.4.3 P-applicatives from transitives in languages that have neither double-P constructions nor a grammatical relation “secondary object”

In the languages which have neither double-P construction *stricto sensu* (i.e., constructions in which two terms show the coding properties that characterize monotransitive Ps) nor a grammatical relation “secondary object”, it can be expected that P-applicatives from transitives are exclusively of the redirecting type with demotion of the P term of the BC to oblique, and this is confirmed by several of the chapters that constitute this book; see, among others, MITHUN on Inuit-Yupik-Unangan languages and GERDTS on Hul’q’umi’num’.

A remarkable type of redirecting P-applicative is mentioned by AUSTIN in the Australian language Yidiny and in some dialects of Dyirbal, where transitive verbs must be overtly intransitivized via antipassivization before being applicativized.

2.4.4 P-Applicatives in languages that do not have oblique NPs and do not have double-P constructions or a grammatical relation “secondary object” either

Toba/Qom (CENSABELLA) illustrates the case of languages that don’t have oblique NPs at all (see § 3.3), and in which double-P constructions are extremely marginal, since apart from ‘give’, no Toba/Qom verb (either derived or underived) can be found in a double-P construction. Contrary to Algonquian languages or Mapudungun (see § 3.4.3), Toba/Qom doesn’t have a grammatical relation “secondary object” either. Consequently, in applicatives from transitives, the participant coded as the P of the BC cannot be expressed at all in the AC, and can only be expressed alongside with the applied P by means of a clause chain in which the verb is repeated in its base form and in its applicative form. For example, the allative applicative form of ‘throw’ cannot combine directly with a noun phrase referring to the thing being thrown, and ‘A throws B to C’ is expressed literally as *A throws B throws.APPL C*.

2.5 D-applicatives

Several chapters of this book identify a number of D-applicatives (i.e., applicative constructions in which the applied phrase is a dative/indirect object), either prominent ones (like those discussed by ARKADIEV, LANDER, AND BAGIROKOVA for Northwest Caucasian and TUTE for Kartvelian) or more sporadic ones (like those mentioned by AUSTIN for Australian, FOLEY for Papuan, VANHOVE for Cushitic, and ZÚÑIGA, ARKADIEV, AND HEGEDŰS for European languages).

The data analyzed by VAN GIJN also suggest that the notion of D-applicative might be relevant for Hup (Nadahup) and for Tukanoan languages, since in these languages,

“applied objects are generally not subject to differential case marking, unlike direct objects (but like indirect objects)”.

2.6 X-applicatives

The instances of X-applicatives (i.e., applicative constructions in which the applied phrase is an oblique) identified in this book confirm the interest of this notion in a general typology of voice, for example the X-applicatives found in Algonquian (LOCKWOOD AND MACAULAY), Totonac (BECK), Bantu (PACCHIAROTTI and CREISSELS), Nilotic (PAYNE) and Atlantic (VOISIN AND CREISSELS). Such constructions are also spotted in Cushitic languages (VANHOVE), Papuan languages (FOLEY) and Australian languages (AUSTIN).

In Algonquian, the markers occurring in X-applicative constructions and those involved in P-applicative constructions are distinct and occupy a distinct slot in the structure of verb forms: the former (traditionally known as “relative roots”) are prefixed to verb stems, whereas the latter are suffixed.

A different situation is found for example in Bantu and Atlantic, where the same markers can be found in P-applicative and X-applicative constructions, depending on the lexical meaning of verb and the semantic role of the applied phrase.

Interestingly, CREISSELS shows that the X-applicatives of Tswana are involved in a mechanism showing some similarity with redirecting P-applicatives. This mechanism concerns motion verbs whose non-applicative form assigns the role of Source of motion to locatives. As already mentioned above, the applicative form of the same motion verbs assigns the role of Destination to locatives, and at the same time cannot combine with a locative expressing the Source, so that expressing the Source and Destination of the same motion event requires a clause chain in which the same verb shows up successively in its non-applicative and applicative forms.

2.7 Multiple applicatives

The data analyzed in this book show that there is cross-linguistic variation in the possibility of stacking applicative markers in the same verb form, each of them licensing a corresponding applied phrase. Multiples applicatives are found among others in Tswana (CREISSELS), where for example ‘write’ in ‘write a letter’ can take two occurrences of the applicative marker *-el*, one licensing an applied object in Recipient role, the other licensing an applied object in Beneficiary role.

However, on the whole, the prevailing tendency is that multiple applicatives are either impossible or at least dispreferred. A possible explanation is that constructions with several non-essential participants encoded as unflagged NPs whose semantic role must be retrieved from verbal marking may be more difficult to process than sequences of adpositional phrases (or case-marked NPs) in which a marker adjacent to each

nominal term (or the form of the nominal term itself) provides indications about the semantic role of nominal expressions.

Interestingly, the languages among those represented in this volume whose situation can be characterized in terms of across-the-board applicativization (Toba/Qom and Upper Necaxa Totonac) behave quite differently in this respect. Toba/Qom has a strict ban on multiple applicatives (CENSABELLA), whereas Upper Necaxa Totonac has no restriction on the stacking of applicatives (BECK).

2.8 Combinability of applicative markers with markers of other valency operations

As regards the combinability of applicative markers with markers of other valency operations within the same verb forms, the default situation is the absence of arbitrary ban on semantically plausible combinations, apart from the avoidance of accumulations of voice markers that could make the construction difficult to process by speakers or hearers. Cross-linguistically uncommon combinations of applicative markers and markers of other valency operations are even mentioned in some chapters.

This is in particular the case in Upper Necaxa Totonac (BECK), where the combination of reciprocalization and comitative applicativization has the effect of transitivity reciprocal constructions, converting for example the intransitive construction *A and B love each other* into a transitive construction that can be glossed as *A is.in.mutual.love. with B*.

The combination of applicativization and causativization in Northwestern Caucasian languages is another example. Cross-linguistically, applicativization of causative constructions is common with the function of introducing a Beneficiary, but an additional function of the applicativization of causative constructions is found in Northwestern Caucasian languages, where Causees can only be coded as the applied phrase in a D-applicative construction corresponding to a causative BC (ARKADIEV, LANDER, AND BAGIROKOVA).

However, some chapters mention the existence of arbitrary limitations on the combination of applicative markers with markers of other valency operations.

The possibility of combining applicativization and antipassivization is illustrated, among others, by Classical Nahuatl in the introductory chapter. By contrast, GERDTS notes that, in Hul'q'umi'num', applicative verbs do not form antipassives.

Several of the chapters that constitute this book explicitly mention the possibility of combining applicativization with reflexivization and/or reciprocalization, but HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS indicate that Northern Zapotec ACs can combine with the causative construction but not with the reciprocal-reflexive construction. In Hul'q'umi'num', transitivity applicatives lend themselves to reflexivization and reciprocalization, whereas redirecting applicatives can be reciprocalized but do not lend themselves to reflexivization (GERDTS).

In the Kiranti language Yakkha, applicative verbs can undergo reciprocal derivation, but are incompatible with reflexive derivation (JACQUES AND LAHAUSOIS). Interestingly, in another Kiranti language (Khaling), derived verbs expressing reflexivization of an applicative construction seem at first sight to consist only of a root followed by the reflexive suffix, but a closer look at their morphological particularities leads to the conclusion that, historically, an applicative marker was present.

In this connection, it is also interesting to note that the combination of benefactive applicativization and reflexivization, in addition to its compositional meaning of auto-benefaction, may develop non-compositional meanings, as observed by PACCHIAROTTI for Bantu languages.

Three of the chapters that constitute this book provide data about applicativization in languages with symmetrical voice systems: ZÚÑIGA on Mapudungun, McDONNELL AND TRUONG on languages of Western Indonesia, and MUSGRAVE, ARKA, AND RAJEG on Standard Indonesian.

3 Semantics

3.1 Specialized applicatives vs. catch-all applicatives

Regarding semantic issues, and rather unsurprisingly, the languages covered here confirm the findings of previous studies with respect to the existence of specialized applicatives vis-à-vis broad markers/constructions. Both are widely attested across the languages analyzed in this book, as well as situations involving moderately polysemous applicative markers.

3.2 The semantic roles expressed as applied phrases

3.2.1 Semantic roles commonly expressed as applied phrases

The languages covered here also confirm the findings of previous studies with respect to the cross-linguistic recurrence of applied phrases expressing the semantic roles of Beneficiary/Maleficiary, Instrument, Companion (alias Concomitant), and the semantic roles relate to space (Location, Source, Path, and Goal).

Applied phrases expressing the semantic roles of Cause and Stimulus are also relatively common among the languages analyzed in this book.

Benefactive applicatives are particularly common, but not universal. Jóola Fóoñi (VOISIN AND CREISSELS) has applicative constructions for Instruments and other semantic roles, but not for Beneficiaries. Interestingly, in Jóola Fóoñi, Beneficiaries are not encoded as adpositional phrases either, but as objects whose coding properties are

identical to those of the P argument of typical transitive verbs, resulting in ambiguity between, for example, ‘I’ll do the washing for you’ and ‘I’ll wash you’. A similar situation is mentioned by FOLEY for the Papuan language Coastal Marind.

Some of the Australian languages dealt with in AUSTIN’s chapter are also counterexamples to the generalization according to which, if a language has applicative constructions at all, Beneficiary is always among the possible roles for applied phrases.

In this respect, the European languages analyzed by ZÚÑIGA, ARKADIEV, AND HEGEDŰS are particularly exotic, since they virtually lack three of the four cross-linguistically common functions of applicatives: benefactive, comitative and instrumental, and at the same time attest quite a few uncommon functions (see § 4.2.2).

As a rule, in the languages surveyed in this book, benefactive applicatives lend themselves to a malefactive interpretation, depending on the lexical semantics of the verb. However, benefactive applicatives that cannot have a malefactive interpretation are signaled in Tukanooan languages (VAN GIJN). Conversely, the Arawakan language Yukuna has an applicative that can only be interpreted as malefactive or “relinquitive” (‘leaving behind’) (VAN GIJN), and the Australian language Murrinhpatha has an applicative whose only possible interpretations are malefactive and ablative (AUSTIN).

3.2.2 Semantic roles less commonly expressed as applied phrases

Applied phrases expressing some remarkable, albeit possibly uncommon, semantic roles are mentioned in several chapters.

The Kawapanan language Shiwilu has a relinquitive applicative (‘leaving behind’) and an applicative expressing ‘in the vicinity of someone’ (VAN GIJN). As mentioned above, the relinquitive meaning is also expressed via applicativization in the Arawakan language Yukuna, connected to malefactive.

In the Papuan language Barupu, the applicative marker licensing applied phrases referring to negatively affected participants (malefactive) can also license applied phrases referring to participants excluded from action (‘without’).

Algonquian languages have X-applicatives expressing ‘in the appearance of an X’ (LOCKWOOD AND MACAULAY).

Algonquian languages also have X-applicatives with time adjuncts as applied phrases (LOCKWOOD AND MACAULAY).

The Inuit language Kalaallisut has a simulative applicative (MITHUN).

ACs with the applied phrase expressing the role of Object of Empathy or Object of Emotion are mentioned in the Uto-Aztecan language Yaqui (ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ), in the Papuan language Yimas (FOLEY), and in some Australian languages (AUSTIN).

The Bantu language Tswana has an obligatory applicative construction in which the applied phrase is an adverb that can be glossed as ‘for a long time’, ‘for ever’, ‘for real’, ‘irrevocably’ (CREISSELS).

The role of Containing Instrument (as in ‘grind in a mortar’ or ‘drink from a cup’) is relevant for the description of the ACs of Upper Necaxa Totonac (BECK) and Tswana (CREISSELS). Upper Necaxa Totonac has a dedicated applicative marker for Containing Instruments, distinct from that used for ordinary Instruments. Tswana codes Containing Instruments via applicativization, whereas ordinary Instruments are coded as prepositional phrases, without any verbal marking.

Toba/Qom has four distinct locative applicatives and five distinct directional applicatives, some of them expressing very specific nuances rarely expressed by dedicated markers cross-linguistically (CENSABELLA). A similar situation is found in the Papuan language Barupu (FOLEY).

With motion verbs, German and other European languages have ACs with applied phrases expressing the space or distance covered by motion (ZÚÑIGA, ARKADIEV, AND HEGEDŰS).

Applied phrases expressing the role of Viewpoint Holder (alias Judicans) are signaled in some Northwestern Caucasian and European ACs (ARKADIEV, LANDER, AND BAGIROKOVA; ZÚÑIGA, ARKADIEV, AND HEGEDŰS).

Applied phrases expressing the role of Causee are found in the causative constructions of Northwestern Caucasian languages (ARKADIEV, LANDER, AND BAGIROKOVA), in an analytical causative construction of Otomi (HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS), and in the causative-autobenefactive construction of the Atlantic language Laalaa (VOISIN AND CREISSELS).

English *out*-applicatives express the role of exceeded threshold / surpassed competitor (ZÚÑIGA, ARKADIEV, AND HEGEDŰS).

Baltic and Slavic languages have ACs with applied phrases expressing the roles of Created Object, Eliminated Object or Exhausted Object (ZÚÑIGA, ARKADIEV, AND HEGEDŰS).

With bodily function verbs, the languages of Western Indonesia have ACs in which the applied phrase specifies the thing or substance expelled (as in ‘urinate blood’).

ACs with applied phrases expressing the role of Speech Topic are signaled in the Uto-Aztecan language Yaqui (ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ), in the Mayan language Kaqchikel (MONTGOMERY-ANDERSON), in Yup’ik (MITHUN), and in the languages of Western Indonesia (MCDONNELL AND TRUONG).

The Papuan language Yimas has an AC whose meaning can be glossed as ‘chasing someone into a place’ (FOLEY).

In Circassian, applicativization of a ‘be’ verb yields a predicative possession construction with the Possessor encoded as an applied indirect object (ARKADIEV, LANDER, AND BAGIROKOVA).

The expression of Manner may also involve verbal markers otherwise found in bona fide applicative constructions, but in general, as discussed by VOISIN AND CREISSELS for Atlantic languages, the use of the markers in question in relationship with phrases expressing Manner seems to be an instance of oblique registration (see § 6.1.3) rather than applicativization proper.

3.2.3 Possible correlations between the semantic roles expressed by applied phrases and other properties of applicative constructions

The possibility of correlations between the semantic roles expressed by applied phrases and other properties of applicative markers (syntactic properties of the applicative construction, polysemy patterns involving other types of valency operations, possibility of uses not related to valency operations) is systematically explored by VOISIN AND CREISELS for Atlantic languages. They show that, in this language family, the markers found in benefactive applicative constructions and those found in instrumental applicative constructions not only are consistently distinct, but also show recurrent contrasts in several respects.

PAYNE also organizes her discussion of Nilotic applicatives according to a similar distinction between the roles expressed by applied phrases.

However, the languages of Western Indonesia analyzed by McDONNELL AND TRUONG do not confirm the tendencies observed in Atlantic and Nilotic, since those that have two distinct applicative markers use the same marker for benefactive and instrumental applicative constructions, whereas they consistently have two distinct markers for the applicative constructions in which the applied phrase expresses the roles of Beneficiary and Goal, respectively.

In this connection, it is also interesting to observe that a marker involved in benefactive applicatives but not in instrumental applicatives in some Mayan languages is found in instrumental applicatives but not in benefactive applicatives in some others (MONTGOMERY-ANDERSON).

Consequently, a larger-scale investigation of the regularities suggested by the chapters on Atlantic and Nilotic would be necessary to test their cross-linguistic validity.

3.3 Essential participants coded as applied phrases in applicative constructions

Interestingly, several of the languages analyzed in this book attest the possibility that applicativization is involved in the coding of semantic roles characterizing essential participants, usually considered less canonical for applied phrases.

Applied phrases expressing the roles of Patient and Theme are not uncommon with Eskimo-Aleutian applicatives (MITHUN).

The role of Recipient, which also occurs time and again with applicatives (for example in the Nilotic language Ateso and in Northwestern Caucasian languages), can hardly be considered peripheral. In the Mayan language Chontal, the Recipient of the verb 'give' can only be expressed as an applied phrase (MONTGOMERY-ANDERSON), and the non-applicative form of 'give' is interpreted as 'produce' (as in English *cows give milk*). In Toba/Qom, the Recipient of 'give' can only be expressed as the applied P of an applicativized verb whose underived form can be glossed as 'give away' (CENSABELLA).

In Tswana (CREISSELS), the expression of the Recipient does not require applicative marking with verbs whose inherent argument structure includes a Recipient, but the expression of the Recipient of ‘write a letter’ (whose presence in argument structure is due to the lexical meaning of the noun in P role) necessitates applicative marking on ‘write’. In Hul’q’umi’num’ (GERDTS), ‘give’, ‘show’ and ‘tell’ are frozen applicativized verbs whose roots are not attested as monotransitive verb stems and only exist in combination with a suffix still acting as an applicative suffix in *sem̩at* ‘sell it’ > *sam̩ast* ‘sell him/her it’.

Applied phrases expressing various semantic types of essential participants are also indicated in the Uto-Aztecan languages from Northwestern Mexico (ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ) and in CREISSELS’ chapter on Tswana.

However, none of the languages or language groups analyzed in this book have across-the-board transitivity as attested in some Oceanic languages where all transitive verbs are formed by means of a transitivity suffix acting as a causative operator with unaccusative intransitives, and as an applicative marker with unergative intransitives. This suggests that systems of this type, although well-attested among Oceanic languages, are rare (if attested at all) in the remainder of the world.

3.4 Applicativization and external possession

Several of the languages analyzed in this book confirm the possible involvement of applicative marking in so-called external possession constructions. For example, in Tswana (CREISSELS) applicative marking is not found in external possession constructions referring to a whole-part relationship (such as ‘he broke my leg’, expressed literally as *he broke me the leg*), but is obligatory in external possession constructions referring to other semantic types of relationships between the “external possessor” and the “possessee” (such as ‘he ate my food’, expressed literally as “he ate.APPL me the food”).

In fact, as developed by Creissels (forthcoming: Chapters 2, 13, and 14), a simple way of dealing with the relationship between external possession and applicativization is to follow Van de Velde’s (2020) proposal to replace the notion of external possession construction (which misleadingly suggests syntactic derivation from some kind of “underlying structure” involving adnominal possession) by the notion of CONCERNEE-CONCERN CONSTRUCTION, whose roots can in fact be found in the old Indo-Europeanist notion of “*dativus sympatheticus*” (see among others Behaghel 1923: 633–638, and more recently the “*sympatheticus*” role as defined by Lehmann 2006). The crux of this alternative approach to external possession is that so-called external possessors are characterized in terms of a participant role labeled “Concernee” that can be viewed as a subtype of the semantic role of Beneficiary conceived as a macro-role. What distinguishes Concernees from other subtypes of Beneficiaries is that their possible advantage or disadvantage in the event denoted by the verb does not follow from the will of the Agent and/or the nature of the particular event referred to, but from some relationship they have

inherently with another participant (the Concern), regardless of the particular events in which they may be involved.

Since Beneficiary is unquestionably the semantic role whose coding most commonly involves applicativization, in this alternative approach to external possession, the frequent involvement of applicative marking in so-called external possession constructions does not necessitate any particular explanation.

Moreover, the notion of Concernee explains very simply why in some languages (e.g., Tswana), Concernee-Concern constructions without verbal marking are exclusively found with reference to whole-part relationships. Crucially, in contrast to possession (which admittedly conflates three semantic prototypes: whole-part, kinship and exclusive use of an object), whole-part relationships seem to constitute the semantic core of Concernee-Concern constructions. This explains in particular why the notion of inalienable possession one might be tempted to invoke is clearly not relevant in the analysis of Concernee-Concern constructions. The point is that the notion of inalienable possession encompasses whole-part relationships and kin relationships, which cross-linguistically tend to behave differently in Concernee-Concern constructions.

3.5 Applicativization and animacy

Several chapters in this book mention a tendency for applied phrases to refer to animate entities, even if they express semantic roles that do not imply animacy.

For example, ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ observe that, in the Uto-Aztecan languages they analyze, applied phrases usually refer to animate participants. It is particularly suggestive that Yaqui has applicative marking in the equivalent of ‘I spread mud on your face’, but not in ‘Goyo spread butter on the bread’.

BECK mentions a contrast in Totonac between animate Goals, which require the applicative form of verbs of motion, and inanimate Goals, which do not require verbal marking.

FOLEY describes an applicative construction of Yimas in which “the actor performs an action while carefully visually monitoring the applied, necessarily animate, participant”.

AUSTIN mentions an applicative marker of Murrinhpatha that licenses applied phrases referring specifically to animate Sources.

GERDTS also notes in Hul’q’umi’num’ “a strong tendency for noun phrases high on the person/animacy hierarchy to occur as applied objects rather than as obliques [whereas] noun phrases low on the person/animacy hierarchy dis-prefer applicative constructions”, as illustrated by the pair of examples ‘the child was frightened of the car’ (where ‘car’ is encoded as a prepositional oblique) vs. ‘the child was frightened of the dog’ (where ‘dog’ is encoded as an applied object). However, after a closer look at textual data, she concludes that “it is not the person or animacy of the noun phrase that

determines whether it appears as an applied object or an oblique”, and that “the person/animacy effects are a by-product of the salience of the noun phrases to the discourse”.

Interestingly, PAYNE describes the opposite situation with the role of Concomitant in Datooga, where inanimate concomitants may be expressed as applied objects, whereas animate concomitants must be expressed as prepositional obliques.

3.6 The holism effect

A particularly significant finding concerns the so-called “holism effect”, namely the fact that a particular verbal marking often encodes some sort of heightened semantic transitivity (whether correlated with valency increase or not), typically related to pluractionality and/or increased or “extended” affectedness of the Patient. This effect is known from studies on German *be*-applicatives and comparatively recent studies on Bantu lookalike constructions, but several chapters of this book mention them appearing in languages related neither areally nor genealogically to either Germanic or Bantu. Further comparative research on this topic is likely to yield very interesting results.

3.7 Applicativization and topicality

With optional applicatives, the question arises of a possible discursive conditioning of the use of the applicative construction.

MITHUN argues that, in Eskimo-Aleut languages, the referents of applied phrases are in general topical within the discourse, and other authors in this book suggest a similar relationship between applicativization and topicality.

THORNES explores the hypothesis that, in Northern Uto-Aztecan languages, “Transitivization is a side-effect of the basic function of ACs, namely, to assign discourse prominence to otherwise peripheral (or, at least, affected) arguments”.

ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ state that, in the Uto-Aztecan languages they analyze in their chapter, optional applicativization “can be used as a topicalization device for referential discourse continuity”.

Topicality of the referent encoded as the applied phrase is also analyzed as a crucial factor for the use of optional applicative constructions by GERDTS.

PACCHIAROTTI also mentions information structure as relevant for the use of optional ACs in Bantu languages.

VANHOVE mentions four Cushitic languages for which “the comments of the authors show that there is a pragmatic difference between the applied phrase and its counterpart in the base construction, but the exact link with focus or topic is often unclear”.

4 Lookalikes

4.1 Syntactic lookalikes

4.1.1 Uncoded valency alternations functionally comparable to applicativization

Two phenomena familiar from the descriptive and theoretical literature make an appearance in this book (see, among others, PAYNE for Nilotic, AMBERBER for Amharic, and ZÚÑIGA, ARKADIEV, AND HEGEDŰS for European languages), namely (i) the uncoded dative alternation and (ii) external possession constructions without verbal marking (or uncoded concernativization, if one accepts the alternative approach to external possession constructions noted in § 4.4 above).

It is also worth mentioning here the treatment of Beneficiaries in Joola languages (VOISIN AND CREISSELS) and in the Bantu language Eton (PACCHIAROTTI). In Joola languages and in Eton, NPs representing Beneficiaries, in spite of their semantic status of adjuncts, have exactly the same coding properties as NPs representing the Patient of typical transitive verbs. Syntactically, this mechanism evokes typical benefactive applicative constructions; however, in Joola languages and in Eton, as in English *I build him a house*, no particular verbal marking is required in constructions including a benefactive object. Interestingly, Joola languages and Eton belong to families in which it is common that Beneficiaries can only be expressed via applicativization. This suggests that, historically, in Joola languages and in Eton, the loss of applicative marking in the presence of a benefactive object is probably responsible for this situation.

A similar mechanism is evoked by FOLEY for some Papuan languages under the name of “promiscuous promotion to core from oblique without applicative marking”.

4.1.2 Equipollent marking of valency alternations functionally comparable to applicativization

Apart from systems of inflectional voices of the type attested in Ancient Greek and Latin, not very common cross-linguistically, equipollent verbal marking of valency alternations has been mainly signaled in the literature and investigated with respect to the noncausal-causal alternation.

“Noncausal-causal alternation” is the term that came into common use in the recent literature for verb pairs in which one of the two verbs (the causal member of the pair) projects transitive clauses whose P term corresponds semantically to the A or S term in the construction of the other verb (the noncausal verb), whereas A in the construction of the causal verb represents the instigator of the event described by the noncausal verb, as in Northern Akhvakh *istaka biqʷari* ‘the glass broke’ (non-causal) vs. *mikʷide istaka biqʷāri* ‘the child broke the glass’ (causal). From the relatively numerous studies that have been devoted to this topic (see in particular Haspelmath 2016), it can be concluded

that, among the possible semantic subtypes of noncausal-causal verb pairs, unaccusative-transitive pairs are special in that, cross-linguistically, they show maximum variation among the five possible strategies (suppletivism, ambitransitivity, causativization, decausativization and equipollence). Several languages with a relatively strong preference for the equipollence strategy in unaccusative-transitive pairs have been signalled in the literature (cf. Creissels, forthcoming: Chapter 16), although they are less common than languages with a strong preference for causativization, decausativization or ambitransitivity.

Things are different for the functional type of valency alternation for which Creissels (forthcoming) proposes the term “undirected-directed alternation”, i.e. verb pairs in which one of the two verbs (viz. the directed member of the pair) projects transitive clauses whose A term corresponds semantically to the A or S term in the construction of the other verb (viz. the undirected verb), whereas P in the construction of the directed verb represents an additional participant towards which the activity of the referent of A is directed.

As far as we are aware, no large-scale typological study of the undirected-directed alternation has been published so far. A priori, symmetrically with the noncausal-causal alternation, five strategies can be expected to be available for the undirected-directed alternation, at least in the particular case of unergative-transitive pairs:

- applicativization: the undirected verb is morphologically less complex than its directed counterpart, as in Boumaa Fijian *-la'o* ‘go’ / *-la'o-va* ‘go to get (something)’;
- antipassivization: the undirected verb is morphologically more complex than its directed counterpart, as in Mandinka *dómó-ri* ‘eat (INTR)’ / *dómò* ‘eat (TR)’;
- suppletivism: the undirected verb and its directed counterpart are completely different, or differ in such a way that their formal relationship cannot be analyzed as a particular instance of some more or less regular pattern, as in Akhvakh *ũk-* ‘eat (INTR)’ / *q'am-* ‘eat (TR)’;
- equipollence: the two members of the undirected-directed pair are formally related, but the relationship is not morphologically oriented from undirected to directed or from directed to undirected;
- flexivalency (including ambitransitivity): the undirected verb stem and its directed counterpart are identical, as in Mandinka *jélè* ‘laugh (INTR)’ / ‘make fun of (someone) (TR)’.

An obvious asymmetry between the noncausal-causal alternation and the undirected-directed alternation is that the equipollence strategy, relatively common in the coding of the noncausal-causal alternation, is cross-linguistically rare for the undirected-directed alternation. However, the data examined in this book include languages (Tarahumara and Guarijío, two of the Uto-Aztecan languages from Northwestern Mexico analyzed in ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ’S chapter) in which equipollent marking is common for pairs of verbs involved in a valency alternation functionally comparable to optional P-applicativization, as for example in Guarijío *naósa-* ‘talk’ / *naóse-* ‘talk to’.

What is particularly interesting in the situation described by ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ is the fact that, in Tarahumara and Guarijío, the same alternation $a/i \sim e$ or $a \sim e$ encodes the undirected-directed alternation if the member of the pair ending with $a(i)$ is a transitive verb or an unergative intransitive, and the non-causal alternation if the member of the pair ending with $a(i)$ is an unaccusative intransitive. In other words, this instance of equipollent marking of valency alternations follows the same distributional pattern as that observed in many languages in which the same morphologically oriented derivation expresses applicativization with some verbs and causativization with others.

Other instances of equipollent marking of alternations functionally comparable to applicativization are also signaled in the following languages:

- In German (ZÚÑIGA, ARKADIEV, AND HEGEDŰS), the alternation $X_{\text{ACC}} \text{ von } Y_{\text{DAT}} \text{ weg-ziehen} \sim Y_{\text{DAT}} X_{\text{ACC}} \text{ ent-ziehen}$ ‘withdraw X from Y’ illustrates this possibility.
- In the Algonquian language Blackfoot (LOCKWOOD AND MACAULAY), a former applicative marker has been reanalyzed as a TA final (i.e., as an obligatory component of the verb forms that include it), so that the presence vs. absence of a benefactive O1 is not conditioned by the addition/deletion of morphological material, but merely by the alternation between two possible finals, either TA \sim TI or TA \sim AI.²
- In Circassian languages (ARKADIEV, LANDER, AND BAGIROKOVA), a vowel alternation designated as “transitivizing ablaut” distinguishes the intransitive use of motion verbs like ‘go’ from a transitive use of the same verbs with an object denoting the path or distance covered by motion.
- JACQUES AND LAHAUSOIS mention the Kiranti language Yakkha as having a handful of verbs with equipollent marking of an alternation functionally similar to applicativization (e.g., between ‘be forgetful’ and ‘forget someone’).

One may also wonder whether the complex system of stem alternations that characterizes the formation of applicative verb stems in Otomi and constitutes a reflex of a valency-increasing suffix *-H (HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS) should not be analyzed synchronically as an instance of equipollent marking of an alternation functionally similar to applicativization, rather than applicativization proper. The same question arises for the Western Nilotic languages in which the distinction between applicative verbs and their non-applicative counterpart relies entirely on stem alternations (PAYNE).

² In Algonquian languages, verbs are morphologically marked as transitive with animate object (TA), transitive with inanimate object (TI), intransitive with animate subject (AI), or intransitive with inanimate subject (II).

4.2 Morphological lookalikes

4.2.1 Lexicalized applicatives

First, familiar morphological lookalikes like the lexicalized applicatives of Germanic are also found in languages and groups as disparate as Bantu (PACCHIAROTTI and CREISSELS), Atlantic (VOISIN AND CREISSELS), Kartvelian (TUTE), Western Indonesian (MCDONNELL AND TRUONG), Uto-Aztecan (ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ), Algonquian (LOCKWOOD AND MACAULAY), Hul'q'umi'num' (GERDTS), Mapudungun (ZÚÑIGA), etc.

An interesting case of lexicalized applicative is the conventionalization of the applicative form of 'sit' (literally 'sit with') as a transitive verb of possession in the Australian language Diyari (AUSTIN).

Lexicalized applicatives do not appear to exist in Totonac, however (BECK).

4.2.2 Applicativization marking and conjugation class marking

FOLEY discusses evidence that, in some groups of Papuan languages, applicative markers tend to lose their applicative function and to transgrammatize into markers whose sole function is to distinguish conjugation classes of verbs.

4.2.3 Applicative markers also used to express syntax-neutral intensification

Possibly as something related to the holism effect mentioned above, morphological lookalikes that do not add an applied phrase but express some kind of heightened semantics ("syntax-neutral intensification") are clearly not an exclusive hallmark of Bantu; they are also found in Western Austronesian (MCDONNELL AND TRUONG), in the Nilotic language Maa (PAYNE), in Papuan languages (FOLEY), in Standard Indonesian (MUSGRAVE, ARKA, AND RAJEG), Toba/Qom (CENSABELLA), Mapudungun (ZÚÑIGA), etc.

4.2.4 Applicative markers and valency-neutral V>V derivation

The syntax-neutral intensifying use of verbal formatives that also have the ability to act as applicative markers mentioned in § 6.1.3 can be viewed as a particular case of what FOLEY describes for Papuan languages as the "adverbial" function of verbal formatives also used as applicative markers. In their "adverbial" function, the verbal formatives in question express meanings similar to those they express as applicative markers, but do not add arguments.

The possibility of being used to express $V > V$ derivations that imply no modification of the syntactic properties of verbs is not uncommon for the European preverbs

that have applicative marking as one of their possible functions (ZÚÑIGA, ARKADIEV, AND HEGEDŰS).

Similarly, Upper Necaxa Totonac has an applicative marker licensing applied objects expressing the role of Containing Instrument which is homonymous (and cognate) with a “limitative” suffix that does not modify the valency properties of verbs but implies that the action affects specifically a subpart of one of the participants (BECK).

One may also mention here a phenomenon observed in the Algonquian Relational Construction analyzed by LOCKWOOD AND MACAULAY, where a verbal suffix registers the presence of an additional “ghost participant” concerned by the event, without, however, licensing a phrase representing the additional participant, which distinguishes this construction from bona fide applicative constructions.

4.2.5 Applicative marking and oblique registration

Morphological lookalikes that mark an oblique term as pragmatically salient without modifying its coding characteristics (“oblique registration”) are common in Meso-America (see MONTGOMERY-ANDERSON for Mayan, HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS for Otomanguean), but are also found in Bantu (PACCHIAROTTI and CREISSELS), Atlantic (VOISIN AND CREISSELS), Amharic (AMBERBER), in Papuan languages (FOLEY), and in European languages (ZÚÑIGA, ARKADIEV, AND HEGEDŰS).

Moreover, several chapters mention constructions that cannot be unambiguously analyzed as oblique registration constructions or applicative constructions, since the oblique whose pragmatic saliency is marked by the addition of a verbal formative can optionally maintain its oblique coding or acquire P-like coding.

According to HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS, both in Zapotec and Otomi, non-applicative constructions marked with applicative morphology can be arranged along a promotion-registration continuum, based on how many core morphosyntactic properties (if any) non-core arguments acquire in such constructions. The Mayan language Ixil illustrates a construction in which an instrumental phrase whose focalization is marked by a verbal suffix acting as a bona fide applicative marker in other Mayan languages loses the prepositional marking it has in the BC but does not acquire the possibility of being indexed in the verb form that characterizes core arguments in Ixil (MONTGOMERY-ANDERSON).

There is cross-linguistic variation in the semantic roles lending themselves to oblique registration constructions or to constructions halfway between bona fide applicative and oblique registration constructions. Oblique registration targets instrumental adjuncts in Mayan languages, but locative adjuncts in Bantu and in the European languages surveyed by ZÚÑIGA, ARKADIEV, AND HEGEDŰS, and the only example of oblique registration mentioned in the Uto-Aztecan languages analyzed by ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ concerns a comitative adjunct.

A similar use of applicative morphology is mentioned by THORNES in Northern Paiute, with the difference that the highlighted participant is not an adjunct, but a Recipient.

4.2.6 Applicative marking and the scope of locative phrases

Some Bantu (PACCHIAROTTI) and Atlantic (VOISIN AND CREISSELS) data suggest that markers otherwise involved in applicative marking may have a syntax-neutral use with the function of widening or shifting the scope of locative phrases, as for example marking the distinction between two possible readings of *the man heard the snake in the bush* ('the snake is in the bush, the man could be or not in the bush' vs. 'the man is in the bush, the snake could be or not in the bush').

4.2.7 Applicative markers also used to derive joint activity verbs

The derivation of joint activity verbs ('do something together') implies no valency operation, but commonly involves the same markers as reciprocal derivation. In the Inuit language Kalaallisut, joint activity verbs can be derived by means of a suffix also acting as an applicative marker (in particular in comitative applicative constructions) and as a reciprocal marker (MITHUN).

The cross-linguistic variation in the Algonquian comitative constructions also provides interesting data about the possible relationships between comitative applicativization and the derivation of joint action verbs.

4.2.8 Syntax-neutral use of applicative markers related to definiteness

MCDONNELL AND TRUONG mention that, in the languages of Western Indonesia, a verbal suffix otherwise used as an applicative marker may have with some verbs a syntax-neutral use in which its presence highlights that the P argument is definite, or that the clause refers to a specific event.

4.2.9 Directionals, applicative marking, and aspect

Applicative markers also found in constructions in which they have a valency-neutral use as aspectual markers are indicated in Bantu (PACCHIAROTTI and CREISSELS), in Atlantic (VOISIN AND CREISSELS), in the languages of Western Indonesia (MCDONNELL AND TRUONG), in Standard Indonesian (MUSGRAVE, ARKA, AND RAJEG), and in European

languages (ZÚÑIGA, ARKADIEV, AND HEGEDŰS). This possibility is also evoked in PAYNE's chapter on Nilotic and in ZÚÑIGA's chapter on Mapudungun.

Since the (trans)grammaticalization of directionals into aspectual markers is cross-linguistically common, it is tempting to speculate that this type of polysemy characterizes applicative markers resulting from the (trans)grammaticalization of directionals.

In this respect, as discussed by PAYNE, Nilotic languages show particularly interesting data about the possible extension of directionals into the domains of aspect, applicative marking and person indexation.

Data on the possibility that directionals develop an applicative function can also be found in VANHOVE's chapter on Cushitic.

4.2.10 Applicative markers also used to express modal notions

An applicative marker also appearing in a modal construction that does not meet the definition of an applicative construction is mentioned by ARKADIEV, LANDER, AND BAGIROKOVA. The Circassian languages have a potential construction involving a verbal affix identical to the benefactive applicative marker. However, the potential construction does not qualify as an applicative construction, since it is an intransitive construction whose subject corresponds to the object of the base construction, whereas the transitive subject of the base construction corresponds to a dative oblique in the potential construction.

In languages having both a middle voice lending itself to a facilitative use and a benefactive applicative, a compositional expression of potentiality is possible by taking a facilitative middle as the input for benefactive applicativization (something like literally 'the letter is easy to write for me' > 'I can write the letter'). However, such an analysis cannot be considered for the Circassian potential construction, directly derived from the transitive base construction via the addition of a marker otherwise used as an applicative marker.

4.2.11 Applicative markers also used for N>V or V>N derivation

In Standard Indonesian (MUSGRAVE, ARKA, AND RAJEG), the suffixes acting as applicative and causative markers are also used as derivational suffixes whose addition to nominal or adjectival stems yields transitive verbs. A verbalizing use of applicative morphology is also mentioned by ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ for some Uto-Aztecan languages, by ZÚÑIGA, ARKADIEV, AND HEGEDŰS for Germanic languages, and by ZÚÑIGA for Mapudungun.

In some Atlantic languages, the applicative constructions with the applied phrase in the role of Instrument involve markers also used for instrument nominalization (VOISIN AND CREISSELS).

5 Applicativization and other morphologically-oriented valency operations

It has already been observed in the literature that the use of the same verbal marking to encode applicativization and other types of morphologically-oriented valency alternations is cross-linguistically common.

5.1 The applicative-causative polysemy

Unsurprisingly, the data analyzed in this book confirm that the applicative-causative polysemy is particularly common cross-linguistically.

As rightly observed by MITHUN and JACQUES AND LAHAUSSOIS, some situations are inherently ambiguous between the conceptualization underlying an applicative formulation and a causative formulation. For example, in the kind of situation described in English as *A went with B* or *A took B along*, there are equally good reasons to encode B as the applied phrase in an applicative construction or as the causee in a causative construction. Similar examples are also discussed by CREISSELS for Tswana and by VAN GIJN for the languages of northwestern Amazonia. HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS quote a Zapotec example of a comitative applicative lending itself to a causative-like interpretation (*A went to work with B* > *A took B to work*).

That said, true instances of applicative-causative polysemy (i.e., the use of identical markers in applicative and causative constructions referring to situations that do not show the conceptual ambiguity mentioned above) are mentioned in the chapters by THORNES, ÁLVAREZ GONZÁLEZ AND ESTRADA FERNÁNDEZ, HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS, PACCHIAROTTI, PAYNE, McDONNELL AND TRUONG, MUSGRAVE, ARKA, AND RAJEG, AUSTIN, and ZÚÑIGA, ARKADIEV, AND HEGEDŰS.

ZÚÑIGA describes for Mapudungun a situation he analyzes as “an erstwhile instance of the causative-applicative isomorphism that has given rise to two different templatic slots”. A situation that might also be analyzed as historically linked to applicative-causative polysemy is described by TUIE for Kartvelian languages.

The data analyzed in this book also confirm the existence of a widespread tendency to use polysemous applicative-causative markers in causative function with monovalent verbs assigning a patientive role to their single argument (unaccusative intransitives), and in applicative function with monovalent verbs assigning an agentive role to their single argument (unergative intransitives) and with bivalent/transitive verbs.

There are, however, counterexamples to this generalization. For example, in Bantu languages, the possibility of applicative constructions in which a marker predominantly used in causative function licenses applied phrases expressing the role of Instrument does not affect the possibility of using the same marker in causative function with the same verbs. In Wolof (VOISIN AND CREISSELS) the same derived form of ‘sit’ can be used with a causative meaning (‘make sit’) or with a surrogative meaning (‘sit in behalf of s.o.’ > ‘represent’), in Standard Indonesian (MUSGRAVE, ARKA, AND RAJEG) the same derived form of ‘sew’ can be interpreted as ‘make s.o. sew’ (causative) or ‘sew for s.o.’ (applicative), etc.

An intriguing pattern signaled by VOISIN AND CREISSELS in two groups of Atlantic languages (Joola and Nyun) concerns markers productively used with a causative function that also fulfill an applicative function, but exclusively with a small set of verbs denoting bodily secretions.

Another interesting phenomenon found in the Atlantic language Laalaa concerns a verbal suffix mainly used in instrumental applicative constructions. Laalaa has a verbal suffix that can be characterized as causative-autobenefactive, found in construction in which the referent of the subject is both the Instigator and the Beneficiary of an action carried out by an unspecified Causee. In this causative-autobenefactive construction, the Causee can only be specified if the instrumental applicative marker is added to the causative-autobenefactive marker.

5.2 The applicative-reciprocal polysemy

Among the languages represented in this book, the applicative-reciprocal polysemy is attested in some of the Atlantic languages analyzed in VOISIN AND CREISSELS’s chapter, in some Bantu languages (PACCHIAROTTI), in Yup’ik (MITHUN) and in Southern Zapotec (HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS). In Southern Zapotec, the addition of a suffix otherwise marking comitative applicative constructions to the transitive verb ‘stain’ does not seem to modify the transitivity of the construction but yields meanings that can be glossed as *A got.stained.together.with B* (passive-sociative) and *A is.involved.in.mutual.staining.with B* (reciprocal).

5.3 The applicative-antipassive polysemy

The applicative-antipassive polysemy is attested in some of the Atlantic languages analyzed in VOISIN AND CREISSELS’s chapter and in Yup’ik (MITHUN).

In Mapudungun (ZÚÑIGA), a verbal suffix mainly used as an applicative marker also has an antipassive function with a limited number of verbs.

VAN GIJN also mentions that the Kawapanan languages Shiwilu and Shawi have cognate verbal suffixes acting as applicative markers with some verbs, and as antipassive markers with some others.

In Standard Indonesian (MUSGRAVE, ARKA, AND RAJEG), a suffix typically used as an applicative marker has an antipassive function with the ditransitive verb ‘give’, converting it into a monotransitive verb projecting clauses in which the Recipient can only feature as a prepositional phrase.

5.4 Applicative markers also used to mark non-causative A/S-nucleativization

The data analyzed in this book attest polysemy patterns involving applicativization and less common types of valency alternations that can be subsumed under the general notion of non-causative A/S-nucleativization. As commented in more detail in the Introductory Overview § 6.2.1, “non-causative A/S nucleativization” is the term we use for derived constructions in which the A/S role is taken over by a non-agentive participant that cannot be encoded as a core term (A, S or P) in the base construction.

The use of the same marker in applicative constructions and in constructions in which an oblique referring to a non-agentive participant is promoted to A/S role is described in CREISSELS’s chapter on Tswana. It concerns a suffix most commonly used as an applicative marker but also found in a construction in which an instrumental oblique is promoted to A role, whereas the A of the base construction (the Agent) is obligatorily left unexpressed.

HERNÁNDEZ-GREEN AND LÓPEZ NICOLÁS describe a Northern Zapotec verbal derivation yielding a construction misleadingly referred to in the literature as “applied experiencer construction”. As they themselves acknowledge, this construction is not an instance of applicativization, but of non-causative subject-nucleativization, since for example an intransitive verb such as ‘be necessary’ is converted into a derived transitive verb glossable as ‘need’, whose subject is an experiencer that cannot be expressed in the BC, whereas the subject of the BC becomes the object of the derived construction. VOISIN AND CREISSELS mention a similar example from Wolof, where the combination of a verb ‘remain’ with a suffix otherwise acting as an applicative marker yields a derived verb meaning ‘still have’. VOISIN AND CREISSELS analyze it as a lexicalized applicative, because no other Wolof verb lends itself to a similar alternation, but as a valency operation, ‘remain’ > ‘still have’ is comparable to ‘be necessary’ > ‘need’, since ‘A still has B’ can be paraphrased as ‘A is a person for whom B remains’.

The use of the same marker in applicative constructions and in constructions in which the A/S role is taken over by a Concernee (or “external possessor”) is mentioned by MITHUN in Yup’ik. A similar use of applicative morphology is also mentioned by THORNES for Northern Paiute: in his examples (61–63), applicative morphology licenses

a Concernee in subject role, whereas the subject of the BC is converted into an object (i.e., something like literally *I died.APPL her* for ‘I was affected by her death’).

The use of the same marker in applicative constructions but also in constructions in which it licenses an additional non-agentive participant in subject role, functionally similar to Japanese or Tungusic “adversative passives” (Malchukov 1993), is also found in Mapudungun (ZÚÑIGA), where this mechanism concerns avalent meteorological verbs and a subclass of non-agentive monovalent verbs. Similarly, VAN GIJN mentions that in the Kawapangan language Shiwi, a suffix that also has causative, antipassive and applicative uses converts the avalent/impersonal meteorological verb ‘get cold’ (as in *it gets cold*) into an intransitive verb whose subject expresses the role of Experiencer (as in *he/she gets cold*).

In the languages that have both P-applicativization and passivization, it is common that non-causative A/S-nucleativization is realized compositionally, by combining P-applicativization and passivization: a phrase representing a non-agentive participant is introduced in P role via P-applicativization, and the applicative construction serves as the input for passivization, the non-agentive participant expressed as the applied P in the applicative construction taking thus the role of A/S. Consequently, depending on the theoretical framework, the use of an applicative marker to also mark non-causative A/S nucleativization can be analyzed as a case of covert passivization of an applicative construction.

Interestingly, among the languages surveyed in this book, the Atlantic language Laalaa has an instrumental applicative construction, but also a dedicated marker found exclusively in a construction in which it licences the expression of Instruments in A role (VOISIN AND CREISSELS).

Concerning the possible relationships between non-causative A/S-nucleativization and applicativization, the English example *Atlanta outrained Seattle* quoted by ZÚÑIGA, ARKADIEV, AND HEGEDŰS is remarkable in that it attests the possibility that a single marker licenses these two valency operations at the same time—something even more potent, as it were, than the applicative-cum-passive known from Philippine languages (which, roughly, introduces a new core argument as a subject). The base construction can only be *it rained more in Atlanta than in Seattle*, which means that, in this particular case, *out-* (otherwise widely attested in applicative function) actually promotes both participants to the clausal core and grants one of them subject status; *outrain* licenses both the promotion of *Atlanta* (Location) to subject (non-causative A/S-nucleativization) and the promotion of *Seattle* (Standard of Comparison) to object (applicativization).

5.5 Other possible polysemy patterns

Bahrt (2021: 110–120) also mentions the possibility of applicative-passive, applicative-reflexive and applicative-anticausative polysemy, but the examples he quotes are

not really convincing.³ Interesting data in this perspective might be provided by a group of Papuan languages (the languages of the Tonda sub-family of the Yam family) in which FOLEY signals the existence of a verbal affix acting not only as an applicative marker, but also as a decausative, reflexive or reciprocal marker.

5.6 Applicative and autobenefactive

Autobenefactive constructions are the result of a valency operation that does not affect the formal valency of the verb, but modifies the assignment of semantic roles by implying that the referent of A/S, in addition to its semantic role in the base construction (typically Agent), is the Beneficiary of his/her own action.

Unsurprisingly, in the languages that have applicative constructions in which the applied phrase expresses the role of Beneficiary, autobenefaction is commonly expressed compositionally, i.e. by taking the benefactive applicative construction as the input of reflexivization.

However, autobenefaction may also be one of the possible meanings of middle voices, as mentioned by VANHOVE for Cushitic languages.

Another possibility, illustrated by the Jivaroan/Chicham language Wampis (VAN GIJN), is the “semi-reflexive” interpretation of a benefactive applicative, analyzable in terms of covert reflexivization of an applicative construction.

There are also languages, such as Kartvelian languages, which have a dedicated autobenefactive marker that cannot be decomposed into an applicative marker and a reflexive marker (TUIITE). The Kiranti language Belhare is also mentioned by JACQUES AND LAHAUSOIS as having a dedicated autobenefactive marker that cannot be decomposed as “applicative + reflexive”.

6 Conclusion: Areas for future research

To conclude this chapter, primarily conceived as a summary of the aspects of applicative constructions to the typology of which the case studies collected in this book contribute significantly, we would like first to briefly highlight some of the findings that can be viewed as particularly relevant for the typology of applicatives and related constructions:

³ According to the definitions adopted in this book, the illustrations of applicative-passive polysemy proposed by Bahrt (2021: 110–112) do not involve applicativization, but rather non-causative A/S-nucleativization (see § 5.4). In the few languages quoted by Bahrt (2021: 114–115) as having applicative-reflexive polysemy, applicative markers and reflexive markers show only partial resemblance. Finally, concerning the applicative-anticausative polysemy, Bahrt himself (2021: 119–120) acknowledges that the two potential illustrations he came across are dubious.

- Obligatory applicatives are cross-linguistically common, and the analysis of the semantic roles expressed by applicative constructions that at first sight seem to be analyzable as optional applicatives leads sometimes to the conclusion that they are in fact best analyzed as obligatory applicatives.
- As illustrated in this book by Toba/Qom, and to a lesser extent by Upper Necaxa Totonac, in the languages that make a particularly systematic use of the obligatory applicative strategy, the coding of non-core participants as obliques compatible with the base form of the verb may be marginal, or even completely inexistent.
- In addition to the cross-linguistically common roles of Beneficiary/Maleficiary, Instrument, Companion (alias Concomitant), and the semantic roles related to space (Location, Source, Path, and Goal), several chapters mention remarkable, albeit uncommon, semantic roles among those that may be expressed by applied phrases in applicative constructions.
- European applicatives are particular in that they virtually lack three of the four cross-linguistically common functions of applicatives: benefactive, comitative, and instrumental, and at the same time attest quite a few uncommon functions.
- In *Concernee-Concern* constructions, non-prototypical *Concernees* are more prone to be encoded as applied phrases than prototypical ones.
- Several chapters confirm the generalization that polysemouns applicative-causative markers tend to be used in causative function with monovalent verbs assigning a patientive role to their single argument (unaccusative intransitives), and in applicative function with monovalent verbs assigning an agentive role to their single argument (unergative intransitives) and with bivalent/transitive verbs. However, exceptions to this generalization also appear in some other chapters.
- Several chapters illustrate the possibility of equipollent marking of valency alternations functionally similar to the alternation between optional applicative constructions and the corresponding base constructions.

That said, we would also like to point out some issues that are not tackled systematically in this book, and should constitute areas for future research.

First, as already mentioned in § 2, the present book is biased in the sense that non-affixal applicative markers are under-represented. Hopefully, a later volume devoted predominantly to non-affixal applicatives will systematize the diversity found among those constructions, including the famous cases found in West Africa, East Asia, and Southeast Asia. Further comparative research should also bring affixal and non-affixal applicatives together.

By a related token, even though individual chapters say something about the known or plausible etymologies of the applicative markers,⁴ this book does not investigate

⁴ For example, the Amharic data analyzed by AMBERBER point to a scenario according to which an applicative construction may result from the evolution of a construction in which, initially, an NP flagged

possible correlations between particular sources and specific synchronic features. For instance, whether applicatives originating in verbs systematically differ syntactically and/or semantically from those originating in adpositions is a stimulating question that future research will have to address. The possibility that purely aspectual uses of markers also acting as applicative markers might be indicative of a directional origin has been mentioned above, but would necessitate further investigation.

A systematic investigation of the diachrony of applicative marking would also be crucial to shed some light on what constitutes cross-linguistically the most striking aspect of applicative constructions, namely the remarkable recurrence of several non-applicative uses of applicative morphology. A recently published volume (Pacchiarotti and Zúñiga 2022) has already been devoted to this topic, but this is domain in which much remains to be done, in particular in the perspective of diachronic typology. There is no doubt that a systematic investigation of the non-applicative functions of applicative morphology and their diachrony could greatly contribute to a better understanding of the relationships, not only between applicativization and other types of valency operation, but also between valency operations and other aspects of grammatical structure.⁵

The issue of areality, directly addressed in only one of the case studies collected in this book (VAN GIJN), and somewhat indirectly in several others, would also certainly deserve being investigated more systematically.

Abbreviations

AC	applicative construction
AI	animate intransitive
BC	base construction
II	inanimate intransitive
INTR	intransitive
O1	primary object
O2	secondary object
TA	transitive animate
TI	transitive inanimate
TR	transitive

by an adposition is cross-referenced by an index attached to the same adposition in a position immediately adjacent to the verb. In such a construction, the deletion of the adposition flagging the NP automatically leads to the reanalysis of this NP as an applied phrase, and of what was initially the repetition of an adposition in combination with a resumptive pronoun as an applicative marker.

⁵ Note that, among the chapters that constitute this book, MUSGRAVE, ARKA, AND RAJEG's chapter on Standard Indonesian explores the possibility of a prototype theory analysis of the polyfunctionality of the verbal markers that have applicative marking as one of their possible functions.

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