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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 Tukanan 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. Multiple 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 Hu'lq'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 Hu'lq'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 Kawapantan 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 CREISSELS 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 Kawapantan language Shiwilu, 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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