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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 (Bowern 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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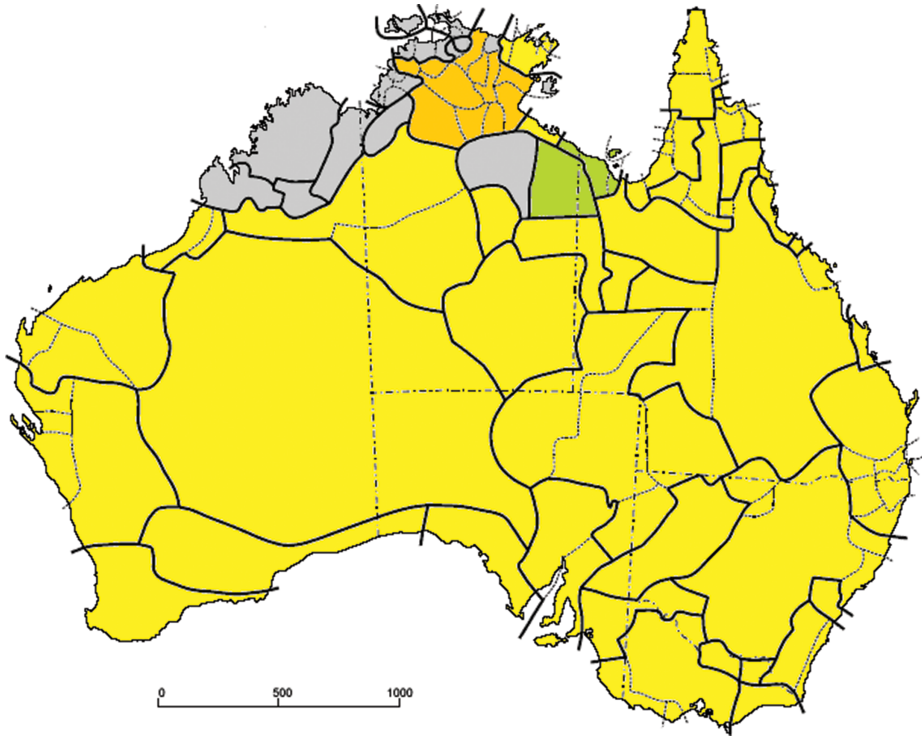
ATSI languages belong to four distinct groupings:

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, Bowerman, 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).

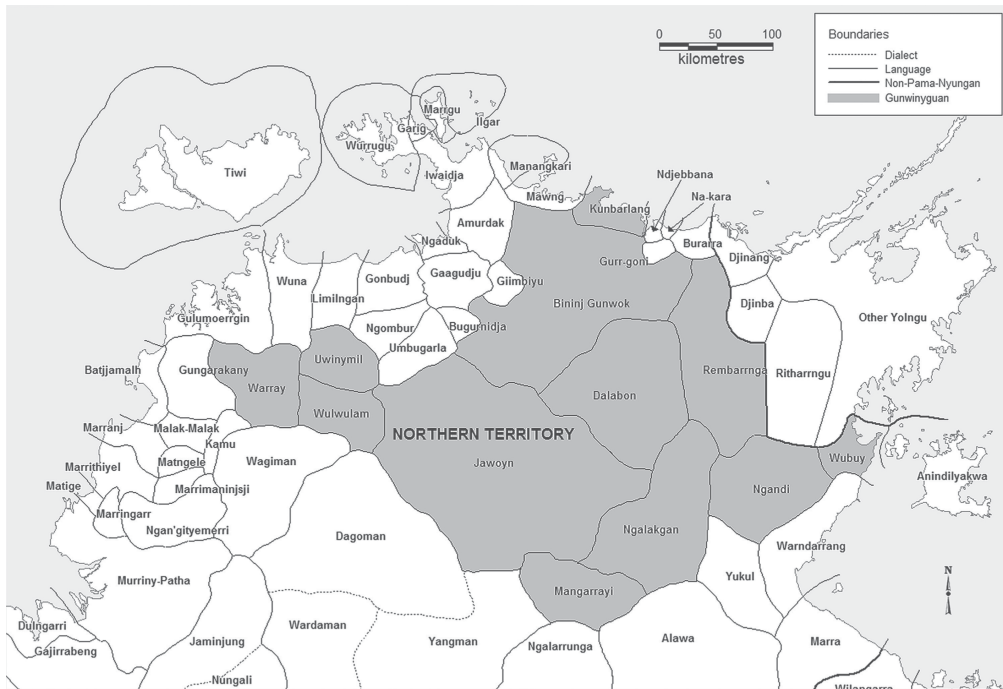
4 Non-Pama-Nyungan applicatives

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-iyau*
 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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