

William A. Foley

12 Applicatives in Papuan languages

Abstract: The term Papuan languages is a purely negative characterization, covering the languages of more than thirty language families plus over a dozen isolates, spoken on and around the island of New Guinea. In spite of their enormous genetic and structural diversity, Papuan languages can on the whole be categorized as head marking and, commensurate with that classification, as possessing applicative constructions. The number of applicative constructions in Papuan languages ranges from one (in typical Trans New Guinea languages of the central highlands like Fore) to thirteen (in the Macro-Sko language Barupu), but in all cases identified they historically have arisen from reanalysis of verb roots in verb compounds or serial verb constructions. The crosslinguistically most widespread applicative construction marks beneficiary participants, but languages with richer inventories go well beyond that to indicate a very wide range of erstwhile peripheral semantic roles like locations, goals, and comitatives.

1 The nature of Papuan languages

Unlike most other chapters in this volume which treat single languages or language families, this chapter necessarily has a very large purview, essentially a geographical area centered around the island of New Guinea and adjacent smaller islands, within which are spoken some 700–800 languages belonging to between 30 and 60 distinct languages families, excluding the languages of the Austronesian family in this region, which number a few hundred themselves. Papuan languages are defined purely negatively, that is, they are the languages of the New Guinea region which do not belong to the Austronesian language family, a fact made clear in their alternative name, Non-Austronesian languages: the name does not denote a coherent genetic grouping. Hence Papuan language is a cover term to cover all the many distinct language families of this region which are not Austronesian, and the exact number of these is still rather undetermined (see Palmer 2018), but clearly cannot be less than thirty, and in addition to these there are some two dozen linguistic isolates.

Papuan languages are not only highly genetically diverse, they are also very structurally diverse. They range from analytical isolating languages similar to those of Southeast Asia, like Kimaghama (Kolopom sub-family, Trans New Guinea family; Drabbe 1949) to mildly inflecting languages like Watam (Lower Ramu sub-family, Lower Sepik-Ramu family) or Moskona (East Bird's Head family; Gravelle 2011) to the richly inflecting often fusional languages of the many sub-families of the vast Trans New Guinea family like Coastal Marind (Anim sub-family; Olsson 2021) and finally to the agglutinative incorporating polysynthetic languages of the Sepik region like Yimas (Lower

Sepik sub-family, Lower Sepik-Ramu family). Syntactically most Papuan languages are of an OV left branching typology with postpositions, with the morphologically richer languages commonly allowing flexibility in clausal constituent order, but not all are; in particular the languages of the Torricelli and West and East Bird's Head families are VO right branching in structure, with prepositions instead of postpositions. For the latter two families this is probably an innovation due to influence from neighboring Austronesian languages, which share this typology, but this is unlikely in the case of Torricelli family languages. The morphologically richer languages are also head marking languages (Nichols 1986), often extremely so like Coastal Marind, Yimas and Central Asmat (Asmat-Kamoro sub-family, Trans New Guinea family), expressing all grammatical relations simply by bound pronominal affixes with no nominal case marking, as in this Yimas example (Roman numerals indicate noun classes throughout this chapter):

(1) Yimas

ɲaykum makaw wa-mpu-ŋa-r-akn panmal
 woman.II.PL fish.sp.X.SG X.SG.NOM-3PL.ERG-give-PFV-3SG.DAT man.I.SG
 'the women gave *makaw* to the man'

though some of the Trans New Guinea languages are double marking, having both bound pronominal affixes and some case marking for nominal arguments, like Fore (Gorokan sub-family, Trans New Guinea family):

(2) Fore (Scott 1978)

mási wá-má a-ka-i-e
 boy man-NOM 3SG.OBJ-see-3SG.SUBJ-DECL
 'the man sees the boy'

Dependent marking languages are largely restricted to more morphologically depauperate languages such as those of the Lower Ramu, Lakes Plain or East Cenderawasih Bay families. Some Sepik family languages like Abau (Locke 2011) are particularly interesting and typologically rare in combining a polysynthetic incorporating typological profile with dependent marking.

2 Verbal sources of applicative morphemes in Papuan languages

Applicative constructions in which an erstwhile oblique argument has been promoted to a core object grammatical relation and hence indicated as such by an applicative morpheme in the verb are mostly restricted in Papuan languages to the morphologically richer, head marking languages in which grammatical relations are indicated by bound pronom-

inal affixes. Languages which lack these constructions typically perform similar functions through the use of serial verb constructions, and indeed there is clear evidence that applicative constructions in Papuan languages in many cases have evolved from re-analysis of prior serial verb constructions and in some cases synchronically alternate with them. Consider these examples from Teiwa (Alor-Pantar sub-family, Trans New Guinea family), in which various serial verb constructions perform the functions of applicative morphemes of verbal origin in other Papuan languages to be discussed in detail below:

(3) Teiwa (Klamer 2010)

- a. *iman gon quan **pin** te*
3PL gong drum hold walk
'they walk away with the gong and drum'
- b. *ped **mat** ma man taxar*
machete take come grass cut
'cut the grass with a machete'
- c. *Sangubal **ma** bir-an daa*
PN come run-R go_up
'running up from Sangubal'
- d. *in nuk yivar ga-taax **wan** hor*
thing one dog 3SG-throat be_at hang
'something hangs around the dog's throat'
- e. *uy ga'an u sen **ma** n-oma' g-an*
person 3SG DIST money come 1SG-father 3SG-give
'that person gave money to my father'

Note the roles of the arguments of the bolded verbs in series in the above examples: comitative in (a) with *pin* 'hold', instrument in (b) with *mat* 'take', source in (c) with *ma* 'come', location in (d) with *wan* 'be at, exist', and exchanged theme in (e) again with *ma* 'come'. In a morphologically rich Papuan language like Barupu (Piore River sub-family, Macro-Sko family) some of these semantic roles would be expressed by applicative affixes on verbs, albeit ones quite transparently derived from verbs grammaticalized as affixes from prior serial verb constructions:

(4) Barupu (Corris 2005)

- a. -ĕ FROM
k-en-úte-n-ĕ-mú
R-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{FROM}-2SG.F.OBJ
'I walked away from you (SG)'
- b. -ô CAUSE
k-en-ké<n>í-n-ô-wa
R-1SG.F.SUBJ-sit<1SG.SUBJ>-1SG.SUBJ-APPL_{CAUSE}-3SG.M.OBJ
'I'm staying behind because of him'

- c. -o FOR
k-en-úte-n-o-mu
 R-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{FOR}-2SG.F.OBJ
 'I walked for you (SG)'
- d. -î WITH
n-en-úte-n-î-mu
 IRR-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{WITH}-2SG.F.OBJ
 'I will walk to be with you (SG)'

Barupu verbs are always inflected for the person, number and gender of their subjects by prefixes (and occasionally by infixes), and, if transitive, also for the person, number and gender of their objects by suffixes. Both verb roots in the examples of (4), *úte*- and *kéi*- 'sit' are intransitive, and as such occur with subject marking *en*- 1SG.F.SUBJ, but they also take direct object suffixes here, *-mu* 2SG.F.OBJ or *-wa* 3SG.M.OBJ, because they have been transitivized by applicative suffixes. But note that each of the applicative suffixes also takes subject marking *n*- 1SG.SUBJ, agreeing with the subject marking of the verb root. This is because each of these originally goes back to a separate verb with its own verbal inflection in a serial verb construction which has now been reanalyzed as a bound affix functioning as an applicative morpheme, but one which still bears its older inflectional patterns. Only *-o* 'to, for' is synchronically a verb root in Barupu, specifically the verb root for 'give'; the others now only function as bound applicative affixes with no link to current verb roots. As we shall see in what follows, re-analysis of verb roots in verb compounds or serial verb constructions is a very common diachronic source for applicative morphemes in Papuan languages, often transparently so in that the form still functions as a verb root elsewhere in the language.

But it is not universally the case in Papuan languages that applicative morphemes arise from re-analyzed serial verb constructions; it seems restricted to those with an OV left branching typological profile. The minority of Papuan languages which have a VO right branching profile sometimes grammaticalize applicative morphemes by incorporating a preposition. Consider the case of Mountain Arapesh (Arapeshan sub-family, Torricelli family) which has a preposition *umu*:

- (5) Mountain Arapesh (Conrad and Wogiga 1991)
- a. *u-a-salik* *stoakipa* *umu* *mabeguh*
 1SG.SUBJ-R-ask clerk PREP marbles
 'I asked the store clerk for marbles'
- b. *h-a-dúk-ech* *umu* *katres*
 3PL.M.SUBJ-R-kill-3PL.OBJ PREP bullet
 'they (PL) killed them with bullets'

There is a general applicative suffix in Mountain Arapesh which is clearly an incorporated and phonologically reduced form of this preposition):

(6) Mountain Arapesh (Conrad and Wogiga 1991)

- a. *m-u-bani-m-ech* *bi-ech* *yawihās*
 1PL.SUBJ-IRR-plant-APPL-3PL.OBJ two-3PL garden.PL
 ‘we will plant two gardens for them (PL)’
- b. *i-tal-um-ona-li* *yeguh*
 1SG.SUBJ-IRR-buy-APPL-3.SG.M.OBJ-TOWARD fish
 ‘I will buy the fish for him and bring it’
- c. *ch-a-na-mu* *bulguh*
 3PL.SUBJ-R-go-APPL pigs.PL
 ‘they (PL) went for pigs’
- d. *yék* *i-na-m-enyú*
 1SG 1SG.SUBJ-IRR-go-APPL-2SG.OBJ
 ‘I will go with you (SG)’ or ‘I will go for you (SG)’
- e. *élgei-no-mu* *nobat*
 fear-3SG.M.OBJ-APPL dog
 ‘he is afraid of the dog’
- f. *i-chu-sah-um-ona-li*
 1SG.SUBJ-IRR-VIII.PL.OBJ-carry-APPL-3SG.M.OBJ-TOWARD
 ‘I will carry the things on my shoulder for him and come’
- g. *ch-a-núk-as-um-ech-i*
 3PL.SUBJ-R-pull-IX.PL.OBJ-APPL-3PL.OBJ-TOWARD
 ‘they (PL) pulled them (slit drums) for them (PL) toward (speaker)’

Note that the initial and final vowels of the incorporated preposition *umu* delete following (6a, c, d, e) and preceding (6a, b, d, f, g) a vowel respectively. Note also, as (6f, g) demonstrate, that the introduced applied participant does not usurp the function of the original direct object of the verb, which can still be marked by a bound pronominal affix (prefix [6f] or suffix [6g] depending on verb class). The applicative suffix along with any bound pronominal suffix for the introduced applied participant then simply follows.

3 Benefactive marking in Papuan languages

By far the most widespread applicative constructions in Papuan languages are those which express the beneficiaries of an action. This usually involves use of the verb roots meaning ‘give’ in a verb compounding or serial verb construction, though in some cases

the etymological source of the benefactive applicative is no longer recoverable. Consider these examples from Central Asmat and Imonda:

- (7) a. Central Asmat (Voorhoeve 1965)
enám nes jimin akat jik-tam-por-m-í-n
 fish flesh sago.stick good bind-APPL_{BEN}-try-PRES-1SG.SUBJ-2.OBJ
 ‘I make tasty sticks of sago and fish for you’
- b. Imonda (Seiler 1985)
ka-m fi-n-fin
 1-DAT do.PL-APPL_{BEN}-NSG-PFV
 ‘they did it for us’

The verb root for ‘give’ in Central Asmat is *tetam-*, clearly related to the benefactive applicative suffix and diachronically derived from it (the Proto-Asmat-Kamoro verb root for ‘give’ is **tam-* [Usher and Suter 2020]), but no longer transparently equivalent to it, while the root for ‘give’ in Imonda is *ai-*, with no relationship whatsoever to the benefactive applicative suffix.

In the vast Trans New Guinea family across numerous sub-families, benefactive applicative constructions are formed by compounding with the main verb an auxiliary verb, usually etymologically ‘give’ or ‘put’, though not necessarily (Telefol, example [8e]), which commonly takes person and number inflection as direct object for the beneficiary. Hence these like most Papuan languages, are secundative marking languages for ditransitive verbs in Dryer’s (1986) typology. Often, this is the only way to express a beneficiary. For some languages there is no basic construction in which the beneficiary can be realized as an oblique and the verb lacks the benefactive marker, while for others like Telefol and Hua there are basic construction alternatives (see Hua examples in [18]). Consider these examples drawn from a number of sub-families:

- (8) a. Fore (Scott 1978)
pu-na-?ta-i-e
 do-1SG.OBJ-APPL_{BEN}/put-3SG.SUBJ-DECL
 ‘he did it for me’

The benefactive suffix and agreement is obligatory in Fore, though it does allow an overt noun phrase functioning as the beneficiary to be case marked as an oblique with the allative case suffix *-ti*:

- (8) b. Fore (Scott 1978)
nae-ti mae-wae-na-?ta-i-e
 1SG-ALL get-all-1SG.OBJ-APPL_{BEN}/put-3SG.SUBJ-DECL
 ‘he gets it all for me’

- c. Tairora (Vincent 1973)
rumpa-ti-mi-te-ro
 tie-1SG.OBJ-APPL_{BEN}/give-PFV-3SG.SUBJ
 'he tied it for me'
- d. Amele (Roberts 1987)
uqa ahul gel-i-te-i-a
 3SG coconut scrape-APPL_{BEN}/give-1SG.OBJ-3SG.SUBJ-NR.PAST
 'she scraped a coconut for me'
- e. Telefol (Healey 1965)
am dine-ʔk-ee-m-antém-ib
 house build-2SG.OBJ-APPL_{BEN}-DUR-FUT-3PL.SUBJ
 'they will build a house for you (SG)'
- f. Lower Grand Valley Dani (Bromley 1981)
wam pa-n-et-h-e
 pig cut-1SG.OBJ-APPL_{BEN}/give-R-3SG.SUBJ
 'he selected a pig for me'
- g. Lower Grand Valley Dani (Bromley 1981)
hakki pa-n-akeik-h-e
 banana cut-1SG.OBJ-APPL_{BEN}/put-R-3SG.SUBJ
 'he cut (and put aside) some bananas for me'

Note that the beneficiary is marked for person and number by prefixes to the benefactive applicative suffix in all the languages except Amele. These are the bound pronominal markers for direct objects, which would occur as prefixes to normal transitive verbs, Fore *na-ka-i-e* 1SG.OBJ-see-3SG.SUBJ-DECL 'he sees me' (Scott 1978), but here are prefixed to the benefactive suffix instead, again demonstrating its erstwhile status as a verb. In Amele, direct object markers are suffixed for simple transitive verbs, *jab-ade-i-a* chase-3PL.OBJ-3SG.SUBJ-PAST 'he chased them', as is the benefactive agreement marker in (8d), so the same pattern still holds, but here via suffixation. Only in the Telefol example (8e) is the benefactive affix not identical to a synchronic verb root meaning 'give' or 'put', though the verbal structure is identical to that of Fore, Tairora and Lower Grand Valley Dani and almost certainly goes back to Proto-Trans New Guinea. Interestingly, in Lower Grand Valley Dani, there are two benefactive suffixes, each equivalent to a different verb root in the language, 'give' (8f) versus 'put' (8g), with a corresponding difference in meaning as captured in the translations of (8e, f): the benefactive with 'put' denotes that objects are deposited for the beneficiary who will then claim them, but this is not entailed for benefactives with 'give'.

Multiple benefactive affixes similar to those of Lower Grand Valley Dani are not uncommon in Papuan languages. Consider these examples from Alambalak (Sepik Hill sub-family, Sepik family) and Yimas (Lower Sepik sub-family, Lower Sepik-Ramu family):

(9) Alamblak (Bruce 1984)

- a. *kun-t hingna-nho-më-m-r*
 house-F work-APPL_{BEN}-REM.PAST-3PL.SUBJ-3SG.M.OBJ
 ‘they (PL) helped him build a house’
- b. *këfra-t tu-hay-më-r-r*
 spear-F throw-APPL_{BEN}/give-REM.PAST-3SG.M.SUBJ-3SG.M.SUBJ
 ‘he threw a spear (to him) for his benefit or to his detriment’

The second benefactive marker, the serial verb construction with *hay*- ‘give’ in (9b) is labeled by Bruce as the indirect benefactive and simply means “something good happens to the actor or he does something which has a good or bad effect on the beneficiary” (Bruce 1984:159). But the form in (9a) with *-nho*, called by Bruce the “direct benefactive”, is much more restricted: 1. the event and the benefactive effect must happen at the same time and in the same place; 2. the same event is experienced by both the benefactor and the beneficiary; 3. the benefactor acts intentionally; and 4. the effect can only be benefactive, never malefactive. None of these conditions needs to hold for the serial verb benefactive construction with *-hay* ‘give’. Now consider these examples from Yimas:

(10) Yimas (Foley 1991)

- a. *Mitchell kat ya-ka-taŋ-wayk-r-akn*
 PN card.V.PL V.PL.NOM-1SG.ERG-APPL-buy-PFV-3SG.DAT
 ‘I bought cards for Mitchell’
- b. *wampunŋ k-mpu-kra-taŋ-mntk-ntut*
 sago.flour.VI.SG VI.SG.NOM-3PL.ERG-1PL.DAT-APPL-finish-REM.PAST
 ‘they (PL) used up the sago flour on us (PL)’
- c. *awt ŋa-kra-yawra-mpi-waraca-ŋa-n*
 fire IMP-1PL.DAT-gather-SEQ-return-APPLBEN/give-IMP
 ‘bring back fire for us (PL)’

The simple benefactive applicative prefix *taŋ*- in (10a, b), also used as a comitative and external possessor applicative (see Section 4.2), can have either a benefactive (10a) or malefactive (10b) meaning, but crucial to its usage like Alamblak *-nho* BEN is the requirement that the actor and the beneficiary or harmed participant be physically present together during the event. The use of *ŋa*- ‘give’ in (10c) has no such requirement and in fact typically denotes the converse. This is brought into sharp relief in the following two examples:

(11) Yimas (Foley 1991)

- a. *narm p-ka-taŋ-warapak-r-akn*
 skin.VII.SG VII.SG.NOM-1SG.ERG-APPL-cut-PFV-3SG.DAT
 ‘I cut his skin for him’ (as in a male initiation)

- b. *narm* *p-ka-kan-ŋa-r-akn*
 skin.VIII.SG VII.SG.NOM-1SG.ERG-pierce-APPL_{BEN}/give-PFV-3SG.DAT
 'I pierce the skin for him' (skin of some other creature, likely an animal)

(11a) with *taŋ-* expresses physical and temporal proximity between the actor and the beneficiary during the act of skin cutting. It is the skin of the beneficiary which is being cut as part of a formal ritual of male initiations. Example (9b) with *ŋa-* 'give' does not require the beneficiary to be present at the time of the piercing, merely that he benefit from the act; hence the entailment that the skin being pierced must belong to some other being, probably an animal.

Mian (Ok sub-family, Trans New Guinea family) has a further fascinating twist on this theme of two benefactive applicative affixes, but here the split is determined by aspect. Rather like Slavic languages, Ok languages typically have a division of many of their verb stems according to aspect, imperfective versus perfective, and Mian is typical:

- (12) Mian (Fedden 2011)
- | | | |
|---------------|--------------|-------------|
| PFV | IPFV | |
| <i>fa-</i> | <i>faka-</i> | 'make fire' |
| <i>têm-</i> | <i>temê-</i> | 'see' |
| <i>ngele-</i> | <i>ngen-</i> | 'beg' |
| <i>ge-</i> | <i>ga-</i> | 'say' |

The verb 'give' exhibits suppletion for aspect:

- (13) Mian (Fedden 2011)
- a. *nē naka=e éil=o*
 1SG man=M.SG pig=F.SG
om-ub'-a-Ø-i-bio=be
 3SG.F.OBJ-give.PFV-3SG.M.DAT-R-1SG.SUBJ-PAST=DECL
 'I gave the sow to the man'
- b. *ī blatik=o*
 3PL.AN plastic_bag=N.PL
do-ka-ye-bina-b-io=be
 3PL.OBJ-give.IPFV-PL.AN.DAT-HAB-IPFV-2/3.PL.AN.SUBJ=DECL
 'they usually give a few (vomit) bags to us'

Interestingly the verb stem for 'give' in the imperfective is clearly the homophonous transitive stem *ka-* meaning 'put'. So, what we find in Mian is a recapitulation of the contrast in Lower Grand Valley Dani (8f, g), but here semantically bleached and determined by an aspectual contrast. Like other Trans New Guinea languages as exemplified in (8), Mian forms benefactive applicative constructions by compounding 'give' with the

main verb in the perfective, but not in the imperfective, which simply uses a benefactive applicative suffix cognate with that in the Telefol example of (8e), hence preserving the aspectual contrast:

(14) Mian (Fedden 2011)

- a. *as=e* *fe-ˈbʰ-o-n-e=be*
 fire=M.SG make_fire.PFV-APPL_{BEN}/give.PFV-3SG.F.DAT-R-3SG.M.SUBJ=DECL
 ‘he made a fire for her’
- b. *imen=o* *fu-k-e-be-i=be*
 taro=N.PL cook-2SG.DAT-APPL-IPFV-1SG.SUBJ=DECL
 ‘I’m cooking taro for you (SG)’

As seen with examples from Alamblak and Yimas, the benefactive suffix is often extended to cover a range of related roles like maleficiary, recipient, etc.; Amele exemplifies well these extended uses of the benefactive affix:

(15) Amele (Roberts 1987)

- a. maleficiary
 age ege na mala j-i-g-eig-a
 3PL 1PL POSS chicken eat-APPL/give-1PL.OBJ-3PL.SUBJ-NR.PAST
 ‘they ate our chicken on us’
- b. recipient
 ija cabi ihac-i-h-ig-en
 1SG work show-APPL/give-2SG.OBJ-1SG.SUBJ-FUT
 ‘I will show the work to you (SG)’
- c. allative
 h-u-t-ag-a
 come-APPL/give-1SG.OBJ-2SG.SUBJ-IMP
 ‘come to me’
- d. ablative
 uqa sigin ebe-ni na dec hu-i-te-i-a
 3SG knife hand-SG.POSS of from grab-APPL/give-1SG.OBJ-3SG.SUBJ-NR.PAST
 ‘he grabbed the knife out of my hand’

Interestingly, like the Fore example (8b), the ablative participant is marked as an oblique phrase with the postposition *dec* ‘from’, yet an applicative construction is employed here nonetheless. Further, the meaning of ‘give’ as the source of the applicative suffix is semantically bleached here, as the action denoted is one of removal, a fact indicating complete grammaticalization of ‘give’ as an applicative in Amele.

As mentioned above, the applicative construction is commonly the obligatory construction in the Papuan languages to express beneficiaries, there being no basic construction alternative in which beneficiaries can be expressed solely as obliques. But

there are languages which do have such alternatives. Consider Urim (Urim-Kombio sub-family, Torricelli family) and Hua (Gorokan sub-family, Trans New Guinea family). Urim has a single applicative suffix *-(e)n* that covers a range of meanings like beneficiary, recipient, and cause, but the applicative construction always alternates with a basic construction in which the erstwhile applied object is realized as an oblique noun phrase headed by a preposition:

(16) Urim (Wood 2012)

- a. *men kark ekng tu tungkoren*
 1PL afraid PREP 3PL white
 'we (PL) were afraid of the white people'
- b. *kupm ti pike kark-en tungkoren yat*
 1SG here before afraid-APPL white also
 'I too was afraid of the white people before'

(17) Urim (Wood 2012)

- a. *mentekng kor kha ekng kitn*
 1DL seek grasshopper PREP 2SG
 'we (DL) seek grasshoppers for you (SG)'
- b. *mentekng kor-n=teitn kha*
 1DL seek-APPL=2SG.OBJ grasshopper
 'we (DL) seek grasshoppers for you (SG)'

The examples in (16) involve an intransitive verb *kark* 'be afraid'. The cause of that fear can be realized either as an oblique constituent marked with the preposition *ekng* (16a) or as the direct object of the verb immediately following the verb without the preposition and with the verb suffixed with the applicative suffix *-n* (16b). In the examples of (17) we have the transitive verb *kor* 'seek'. A beneficiary again can be realized as an oblique constituent (17a) or as the direct object of a verb suffixed with the applicative marker (17b); pronominal direct objects are realized as enclitics to the verb, here *=(t) eitn* 2SG.OBJ.

Hua, although in the same Gorokan sub-family as Fore in (8a, b), behaves like Urim in exhibiting an alternation between a basic construction in which a beneficiary is realized as a case marked oblique constituent and an applicative construction where it functions as the direct object:

(18) Hua (Haiman 1980)

- a. *dgai-su? zu ki-e*
 1SG-BEN house build.3SG.SUBJ-DECL
 'he built a house for me'

- b. *zu ki-na d-t-e*
 house build-3SG 1SG.OBJ-APPL_{BEN}/put.3SG-DECL
 'he built a house for me'

ki-na build-3SG in (18b) is a same subject dependent form of the verb with third person singular anticipatory subject marking. Example (18b) is a biclausal chaining construction, so less fusional than the single word structure found in Fore.

Yimas is particularly interesting in this regard. As a strongly head marking polysynthetic language, all core grammatical relations of a verb are indicated by pronominal affixes on the verb; there is no case marking on core argument nominals. When a beneficiary occurs with either an intransitive or transitive verb, it must be expressed with either of the applicative affixes illustrated in (10) and (11) above. However, ditransitive verbs present a problem: all argument positions are saturated, as Yimas does not permit verbs to have more than three core arguments. Hence when a beneficiary is added to a clause with a ditransitive verb, applicative constructions like those of (10) and (11) are prohibited and instead the benefactive is expressed with the postposition *nampan* 'toward':

- (19) Yimas
anti i-ka-pul-c-akn mpu-nampan
 ground.VIII.SG VIII.NOM-1SG.ERG-rub-PFV-3SG.DAT 3PL-toward
 'I rubbed dirt on him for them (PL)'

4 Papuan languages with multiple applicative constructions

A number of Papuan languages have multiple applicative constructions; I present three brief case studies here.

4.1 Coastal Marind (Anim sub-family, Trans New Guinea family; Olsson 2021)

Coastal Marind has a rich system of applicative constructions, but an unusual fact about it is that, unlike the languages discussed in Section 3, it does not use an applicative construction to express benefaction. It uses the same basic ditransitive construction for beneficiaries (and maleficiaries) as it does for recipients, namely a set of bound dative pronominals:

(20) Coastal Marind (Olsson 2021)

- a. recipient
surat mak-o-ikalen Simon
 letter FUT.1.A-3SG.DAT-send:III.U PN
 'I'm going to send a letter to Simon'
- b. beneficiary
mesiwag mak-o-kahos-e
 old.woman FUT.1.A-3SG.DAT-chew_betel-IPFV
 'I will chew betelnut for grandma' (she has no teeth)
- c. maleficiary
nggat tamuy mak-a-na-yi
 dog food NAFUT-3SG.A-1.DAT-eat
 'the dog might eat the food on me'

Coastal Marind does have four distinct applicative constructions: 1. a comitative-instrumental marked by *k-* ~ *ka-*; 2. an accompaniment marked by *e-*, expressing a co-participant in a motion event, brought along or being chased by the actor; 3. an allative 'toward' indicated by *ind-*; and 4. a separative 'away from', denoted by *is-*. Examples follow:

(21) Coastal Marind (Olsson 2021)

- a. comitative
kak Wobi da menda-b-Ø-ka-man
 aunt PN sago PFV-A-3SG.A-APPL_{COM}-come
 'Aunt Wobi already brought sago'
- b. instrumental
alib Ø-no-d-ka-w-as
 arrow_type NVO-1.A-DUR-APPL_{INSTR}-3SG.U-shoot
 'I was shooting with *alib* arrows'
- c. accompaniment
mayay anem Poce Ø-Ø-e-umuh
 first man PN NVO-3SG.A-APPL_{ACCOMP}-go:3SG.U
 'at first it was that man Poce who brought him'
- d. allative
yap m-a-n-ind-a-y-lolaw-em
 night OVO-3SG.A-1.DAT-APPL_{ALL}-1.DAT-1PL-crawl:3SG.U-TOWARD
 'at night he came sneaking toward us'
- e. separative
eham m-Ø-is-ihon
 husband:3SG OVO-3SG.A-APPL_{SEP}-run:3SG.U
 'she ran away from her husband'

4.2 Yimas (Lower Sepik sub-family, Lower Sepik-Ramu family; Foley 1991, 1997)

Yimas has six contrasting applicative constructions, two of which, *taŋ-* and *ŋa-*, were illustrated in (10) and (11) above. There I illustrated the benefactive applicative use of the prefix *taŋ-*. However, this is not its only usage; rather it commonly functions as an applicative for comitative participants. When marking beneficiaries, applicative constructions with *taŋ-* are obligatory, there being no alternative basic construction with the beneficiary as an oblique phrase, except in the situation of a ditransitive verb with argument positions already saturated, as mentioned in Section 3. But with comitative participants, there is an alternative between a basic construction with an oblique phrase and an applicative with *taŋ-*:

(22) Yimas

- a. *ama kantk na-mpu-tar-kwalca-t*
1SG with 3SG.NOM-3PL.ERG-CAUS-rise-PFV
'they (PL) woke him up along with me'
- b. *na-mpu-ŋa-taŋ-tar-kwalca-t*
3SG.NOM-3PL.ERG-1SG.DAT-APPL_{COM}-CAUS-rise-PFV
'they (PL) woke him up along with me'

Both constructions are possible, though (22b) is definitely preferred with pronominal comitative participants. Possession is also indicated with the comitative postposition *kantk* 'with', though in this usage it is suffixed to mark the number of the possessor. Again, these alternate with an applicative construction with *taŋ-*, in this usage colloated with the verb root *taw-* sit, be at':

(23) Yimas

- a. *tawra kantk-mampan aymbak*
money.IX.SG with-DL COP.3DL
'they (DL) have money'
- b. *tawra impa-na-taŋ-taw-n*
money.IX.SG 3DL.NOM-PRES-APPL_{COM}-sit-PRES
'they (DL) have money'

Both of these constructions seem equally common.

Another applicative construction which exhibits alternations with a basic construction is that involving the prefix *ira-*. It typically marks allative, a place or person toward which someone moves and alternates with a basic construction involving the postposition *nampan* 'toward, for':

(24) Yimas

- a. *na-nampan na-way-mpi-ya-ntut*
 3SG-toward 3SG.NOM-turn-SEQ-come-REM.PAST
 'he turned around and came back to her'
- b. *na-n-way-mpi-ira-ya-ntut*
 3SG.NOM-3SG.ERG-turn-SEQ-APPL_{ALL}-come-REM.PAST
 'he turned around and came back to her'

There is also what might be termed a metaphorical use of *ira*-, generally in association with verbs of emotional or cognitive states, in which the applied object is not only the cause of the state, but also the person or thing toward which the state is directed:

(25) Yimas

- a. *na-n-pay-ira-wampuy-kra-ntut*
 3SG.NOM-3SG.ERG-now-APPL_{ALL}-heart-cut-REM.PAST
 'he worried about her now'
- b. *yanukuran k-mp-ira-aykapiŋa-k-nakn*
 thought.VI.SG VI.SG.NOM-3DL.ERG-APPL_{ALL}-know-IRR-3SG.DAT
 'they (DL) thought about her'

The remaining three applicatives in Yimas, like the benefactive usage of *tanŋ*- lack alternative basic constructions with oblique phrases marked by postpositions. The first is visual *tanŋkway*-, which indicates that the actor performs an action while carefully visually monitoring the applied, necessarily animate, participant. Consider the following contrastive examples:

(26) Yimas

- a. *na-n-ira-wampaki-kia-k-nakn*
 3SG.NOM-3SG.ERG-APPL_{ALL}-throw-NIGHT-IRR-3SG.DAT
 'he threw it toward him' (in his direction)
- b. *na-n-tanŋkway-wampaki-kia-k-nakn*
 3SG.NOM-3SG.ERG-APPL_{VIS}-throw-NIGHT-IRR-3SG.DAT
 'he threw it at him' (looking at him)

A couple of other examples of *tanŋkway*- VIS:

(27) Yimas

- a. *na-mpu-tanŋkway-iranta-irm-kia-ntut*
 3SG.NOM-3PL.ERG-APPL_{VIS}-dance-stand-NIGHT-REM.PAST
 'they (PL) danced for her' (in her honor, watching for responses)

- b. *na-n-taŋkway-iray-jcut*
3SG.NOM-32SG.ERG-APPL_{VIS}-CRY-REM.PAST
'he cried over her' (looking at her body lying in the canoe)

The next non-alternating applicative is the kinetic *pampay-*, derived from an irregular reduplication of the verb root *pay-* ‘carry, lie’. It is used whenever the core argument introduced by the applicative is involved as the passive partner in act of carrying; it parallels some of the usages of the Coastal Marind associative applicative. Compare again the following contrastive examples:

- (28) Yimas
- a. *na-mpu-taŋ-wapal-kia-k*
3SG.NOM-3PL.ERG-APPL_{COM}-climb-NIGHT-IRR
'they (PL) came up with her' (comitative: she walked along too)
- b. *na-mpu-pampay-wapal-kia-k*
3SG.NOM-3PL.ERG-APPL_{KIN}-climb-NIGHT-IRR
'they (PL) came up with her' (carrying her)

A couple of other examples of *pampay*-KIN:

- (29) Yimas
- a. *na-mp-pampay-arm-kia-k*
3SG.NOM-3DL.ERG-APPL_{KIN}-board-NIGHT-IRR
'they (DL) boarded with him' (carried him in the same canoe as them)
- b. *tpwi i-mp-awkura-pampay-wapal-kia-k*
sago.X.PL X.PL.NOM-3DL.ERG-gather-APPL_{KIN}-climb-NIGHT-IRR
'they (DL) were gathering sago and carrying it up'

Finally, the last Yimas applicative is a rare *tur-*, which again expresses an idea related to the Coastal Marind associative, namely that the actor participant is pursuing an animate applied argument driving it to a place; ‘chase’ is a good translation:

- (30) Yimas
pu-n-tur-awramuŋ-k *ma-nan*
 3PL.NOM-3SG.ERG-APPL_{CHASE}-enter-IRR male.cult.house-OBL
 ‘he drove them into the male cult house’

4.3 Barupu (Piore River sub-family, Macro-Sko family; Corris 2005; Donohue 2003)

Barupu has far and away the most complex inventory of applicatives known in any Papuan language and one of the richest of any language anywhere. It has no less than thirteen distinct applicative forms, which are divided into two large groups: those which take subject agreement prefixes or infixes like main verbs and hence clearly derive from earlier serial verb constructions, partially illustrated in the examples of (4) above, and those which lack such agreement. Those which lack agreement are further divided into two sub-groups: those which denote locational notions and those which do not.

The most basic and general non-locational applicative affix is *-nâ*. This suffix is reconstructable as an applicative in Proto-Macro Sko (Donohue 2004) and has a wide range of meanings, but generally clustered around a notion of desired object, as in these examples (I will simply gloss it as APPL):

- (31) Barupu
- a. *rua k-a-ko k-a-rói-nâ kamo*
 bow R-3SG.M.SUBJ-get R-3SG.M.SUBJ-stand-APPL door
 ‘he got the bow and stood with it at the doorway’
 - b. *k-en-tova-nâ-re bÿó*
 R-1SG.F.SUBJ-walk_around-APPL-3PL.F.OBJ cassowary
 ‘I’m hunting cassowary’
 - c. *era k-ama-yôyó-nâ-ni?*
 Q R-2SG.M.SUBJ-dream-APPL-1SG.F.OBJ
 ‘did you (SG) dream about me?’

The other two non-locational applicatives are more transparent semantically:

- (32) Barupu
- a. *-kê* ADVERSATIVE (negative affect on applied participant)
kua Betty á k-u-ai-kê-u
 D PN rain R-3SG.F.SUBJ-rain-APPL_{ADVS}-3SG.F.OBJ
 ‘it’s raining on Betty’ (bad for her)
 - b. *-bo* WITHOUT
mônrai n-opu-títí-bo-na
 dance IRR-2PL.M.SUBJ-dance-APPL_{WITHOUT}-1SG.M.OBJ
 ‘you (PL) keep dancing without me’

The locational applicatives number four. In Barupu only inherently locational nouns like *ôro* ‘house’ can be used as bare nouns without applicativization; using any other type of noun in a locational usage requires one of these locational applicative suffixes:

(33) Barupu

- a. *k-e-ké<m>í* *ôro*
 R-1PL.F.SUBJ-sit<1PL.F.SUBJ> house
 'we sit in the house'
- b. **k-e-ké<m>í* *aka*
 R-1PL.F.SUBJ-sit<1PL.F.SUBJ> father
 'we are sitting on father'
- c. *k-e-ké<m>í-tá-ka* *aka*
 R-1PL.F.SUBJ-sit<1PL.F.SUBJ>-APPL_{ON}-3SG.M.OBJ father
 'we are sitting on father'

Here are examples of the four locative applicatives:

(34) Barupu

- a. *-tâ ON*
k-a-kéi-tá *âi niau*
 R-3SG.M.SUBJ-sit-APPL_{ON} tree log
 'he is sitting on a log'
- b. *-para UNDER*
k-rói-para-i *anania ku*
 R-stand-APPL_{UNDER}-3PL.M.OBJ tree.sp root
 'he stood under them at the roots of the *anania* tree'
- c. *-ya NEAR*
k-en-úte *k-en-no<n>i-ya-mu*
 R-1SG.F.SUBJ-walk R-1SG.F.SUBJ-go_along<1SG.F.SUBJ>-APPL_{NEAR}-2SG.F.OBJ
 'I walked past you (SG)'
- d. *-rômó AMID*
n-e-ké<n>í-romó-ré
 IRR-1SG.F.SUBJ-sit<1SG.F.SUBJ>-APPL_{AMID}-3PL.F.OBJ
 'I would sit among them (PL)'

Interestingly when these locative applicatives are used with transitive verbs which already have overt pronominal object suffixes, the applicative suffix follows the object suffix and any object suffix for the introduced applied participant then follows that. Hence, like in Mountain Arapesh (6f, g), the applicative suffix adds a core participant but otherwise does not affect the argument structure nor the basic inflectional pattern of the main verb:

(35) Barupu

- n-en-ere-ma-tá-ka*
 IRR-1SG.F.SUBJ-put-2SG.M.OBJ-APPL_{ON}-3SG.M.OBJ
 'I will put you (SG) on him'

This pattern of the applicative suffix after object inflection suggests that they were originally independent words, possibly verbs, like the next set of applicative suffixes. (they are unlikely to have been prepositions, as the language has none and is of OV, left branching typology). Their current lack of subject inflection probably is due to phonological factors (Corris 2005: 255).

There are six subject-agreeing applicatives in Barupu. Four of them were exemplified in (4), repeated here as (36) to which a fifth is added:

(36) Barupu

a. -*ě* FROM

k-en-úte-n-ě-mú

R-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{FROM}-2SG.F.OBJ

‘I walked away from you (SG)’

b. -*ô* CAUSE

k-en-ké<n>í-n-ô-wa

R-1SG.F.SUBJ-sit<1SG.SUBJ>-1SG.SUBJ-APPL_{CAUSE}-3SG.M.OBJ

‘I’m staying behind because of him’

c. -*o* FOR

k-en-úte-n-o-mu

R-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{FOR}-2SG.F.OBJ

‘I walked for you (SG)’

d. -*î* WITH

n-en-úte-n-î-mu

IRR-1SG.F.SUBJ-walk-1SG.SUBJ-APPL_{WITH}-2SG.F.OBJ

‘I will walk to be with you (SG)’

e. -*ái* SURROUND

á *k-u-ai-r-a<r>í-ni*

rain R-3SG.F.SUBJ-rain-3SG.SUBJ-APPL_{SUR}<3SG.SUBJ>-1SG.F.OBJ

‘the rain is blocking me’ (surrounding me so I can’t go out)

Although these applicative suffixes very much look like verbs due to their inflections, and undoubtedly their use as applicatives derives from earlier serial verb constructions, only one of them, -*o* FOR, is synchronically a verb root, not surprisingly, our familiar verb in this benefactive usage -*o* ‘give’. Note that it is possible for multiple applicative suffixes to appear on the same verb, including multiple subject agreeing applicative suffixes (37c):

(37) Barupu

a. *aro* *n-en-râivi-tá-u-n-o-a*

greens IRR-1SG.F.SUBJ-cook-APPL_{ON}-3SG.F.OBJ-1SG.SUBJ-APPL_{FOR}-3SG.M.OBJ

ám *něni*

husband 1SG.F.POSS

‘I’ll cook greens on it for my husband’

- b. *k-en-úte-nâ-ka-n-i-mu*
 R-1SG.F.SUBJ-walk-APPL-3SG.M.OBJ-1SG.SUBJ-APPL_{WITH}-2SG.F.OBJ
 'I'm bringing him back to you'
- c. *k-e-ké<n>i-n-ě-*
 R-1SG.F.SUBJ-sit<1SG.F.SUBJ>-1SG.SUBJ-APPL_{FROM}
-mú-n-i-ya
 -2SG.F.OBJ-1SG.SUBJ-APPL_{WITH}-3SG.M.OBJ
 'I stayed away from you (SG), I stayed with him'

There is one further subject-agreeing applicative: the benefactive. Unlike all the others, it takes a prefix, not a suffix. Like Alamblak (9) and Yimas (10, 11), Barupu has two applicatives which cover the semantic range of benefactive, *-o* FOR in (36c) and (37a) above and the benefactive prefix *e-*. Consider the following contrastive examples:

- (38) Barupu
- a. *n-an-aro-n-o-ma*
 IRR-1SG.M.SUBJ-bring_down-1SG.SUBJ-APPL_{FOR}-2SG.M.OBJ
 'I will bring it down to you (SG)'
- b. *n-em-e-na-kô<m>e*
 IRR-2SG.M.SUBJ-APPL_{BEN}-1SG.M.OBJ-bring_up<2SG.M.SUBJ>
 'bring it up for me'

The difference between these is subtle, but seems to revolve around prior possession of the object being transferred to the beneficiary. The benefactive prefix entails that the actor already has possession of the object that he will give to the beneficiary, while *-o* FOR suggests that the actor will have to go and acquire the object beforehand. This would also explain the usage of *-o* FOR in (37a), although the semantics of (36c) seems entirely different. In light of its anomalous character, here are a few more examples of the benefactive applicative prefix in Barupu:

- (39) Barupu
- a. *n-em-e-nă-m-á*
 IRR-2SG.M.SUBJ-APPL_{BEN}-1SG.M.OBJ-2SG.M.SUBJ-eat
 'eat (it) for me'
- b. *k-er-e-a-r-ere-tá* *âi*
 R-3SG.F.SUBJ-APPL_{BEN}-3SG.M.OBJ-3SG.F.SUBJ-put-APPL_{ON} tree
 'she put (them) for him on the tree'

5 Polysemy, homophony and extensions of applicative morphemes

5.1 Adverbial uses

As we have seen thus far, applicative morphemes in Papuan languages commonly derive from older compound or serial verb constructions which have undergone grammaticalization and re-analysis to a greater or lesser extent. Adverbials also commonly arise from the same source, for example in Yimas:

(40) Yimas

- a. source verb root: *makɲc-* ‘move quietly/stealthily’
wurmpl pla-mpu-makc-mpi-wuntampwi-k
 flute.VI.DL VI.DL.NOM-3PL.ERG-quietly-ADV-blow_on-IRR
 ‘they (PL) quietly played the flutes’
- b. source verb root: *pramuɲ-* ‘sleep’
impa-n-taɲ-praŋka-mpi-aypu-kia-k
 3DL.NOM-3SG.ERG-COM-sleeping-ADV-recline-NIGHT-IRR
 ‘he slept with them (DL)’

Given these facts, it is not surprising that some of the applicative affixes in Yimas have adverbial uses in which their basic meaning holds, but they do not add arguments:

(41) Yimas

- a. *ya-n-taɲkway-wampaki-pra-k*
 V.PL.NOM-3SG.ERG-APPL_{VIS}-throw-TOWARD-IRR
 ‘he threw them down carefully’
- b. *aympanuɲ ku-mp-ira-yawra-k*
 pestle.X.SG X.SG.NOM-3DL.ERG-APPL_{ALL}-pick.up-IRR
 ‘they (DL) fetched a stick’

The prefix *taɲkway-* preserves its meaning of visually monitoring an event in (41a), but here fails to introduce a recipient participant who is watched during the performance of the event, so simply best translates as ‘carefully’ doing the action. Similarly, the allative meaning of *ira-* still obtains in (41b), but again in the absence of a goal participant being introduced, the intended goal meaning is taken to refer to the actor, so that ‘pick up’ becomes ‘fetch’, i.e. what is collected is intended to be in the possession of the actor.

5.2 Applicative/causative homophony

The homophony of applicative and causative morphemes has been noted in a number of other languages, perhaps the best known case being Indonesian (Musgrave, Arka and Rajeg, this volume), and this is true also of some Papuan languages. We have already seen above (9b) that Alamblak has two benefactive applicative suffixes, one of which is homophonous with the verb root *hay*- ‘give’. Alamblak has no less than four causative prefixes, contrasting direct versus indirect causation and spatiotemporal contiguity, but one of these is none other than *hay*-:

- (42) Alamblak (Bruce 1984)

hinu-t doh-t hay-ni-mě-t-t
 high.water-F canoe-F CAUS-go-REM.PAST-3SG.F.SUBJ-3SG.F.OBJ
 ‘the high water took the canoe away’

Note that when *hay* functions as a benefactive applicative marker it occurs as a suffix, but when a causative, it is a prefix. Also note that *hay*- is clearly a causative prefix in (42); the semantics of ‘give’ is completely bleached out, unlike in the corresponding usage of the benefactive suffix. Still (42) is clearly the result of a re-analysis of an earlier serial verb construction involving the verb ‘give’ in causative relationship with a following verb as in (43):

- (43) Alamblak

yima-r hay-noh-mě-r-a
 person-M give-unconscious-REM.PAST-3SG.M.SUBJ-1SG.OBJ
 ‘a man gave me (something) (causing) me (to become) unconscious’

Kopar (Lower Sepik sub-family, Lower Sepik-Ramu family) is another language in which the causative and applicative morphemes are homophonous. The causative prefix in this language is *t*-, possibly derived historically from a verb *tu*- ‘hit, kill’, now lost in Kopar but preserved in its sister Yimas:

- (44) Kopar

- a. *akən nanɡun ma-na pet t-mbu-t-kam-a*
 sun skin 1SG-POSS dark PFV-3.ERG-CAUS-become-PFV
 ‘the sun darkened my skin’
- b. *indan mbu-t-riker-ana-k*
 house 3.ERG-CAUS-get_up-3SG.DAT-REM.PAST
 ‘she erected a house for her’
- c. *ku-t-rərəja-bi-duku paret ngari*
 TR.IMP-CAUS-shake-IM.FUT-2PC outside DAT
 ‘you (PC) shake (it) until (it comes) out!’

A prefix of the same form functions as a comitative applicative:

(45) Kopar

- a. *ŋga-t-ra-(a)r-ang-naya*
INV-APPL_{COM}-stay-PROG-PRES-1SG
'she looks after me' (literally 'stays with me')
- b. *mayndəpak mbu-t-ra-(a)r-oro-k-ududu*
husband.PL 3.ERG-APPL_{COM}-stay-PROG-EXT-REM.PAST-3PL
'they (PC) remained with the husbands for a while'
- c. *Wak yo mbu-t-kar-ar-oro-k-ondu*
PN D 3.ERG-APPL_{COM}-walk-PROG-EXT-REM.PAST-3PL
'they (PL) walked around with Wak for a while'

The connection between the causative and comitative uses of this prefix can be gleaned from examples like the following:

(46) Kopar

- kingep mbu-t-rapo~rapo-sa-(a)r-oro-k-ondu*
ladder 3.ERG-APPL_{COM}/CAUS-run~ITER-in-PROG-EXT-REM.PAST-3PL
'they (PL) kept running around in with a ladder'

Obviously, a ladder, being inanimate, cannot run around under its own power; it needs to be caused to run. At the same time, it cannot be run around without someone or some people holding it while they run around with it; hence the ladder accompanies them while they are running with it. It appears likely that it was this use of the causative prefix with such motion verbs that is the source of the comitative meaning of this prefix.

5.3 Applicative/detransitivizer homophony

A few languages of the southern border region between Papua New Guinea and the Indonesian province of South Papua exhibit a quite striking and unexpected homophony between an applicative affix and a detransitivizing affix, treated here simply as a valence marker and glossed VAL. This is a feature of the languages of the Tonda sub-family of the Yam family such as Ngkolmpu (Carroll 2017) and Komnzo (Döhler 2018). Consider these examples from Ngkolmpu:

(47) Ngkolmpu (Carroll 2017)

- a. *Markus-w pr pi s-wance-y*
PN-SG.ERG tree 3.ABS 3.U-fall-SG.A.NR.PAST
'Markus felled the tree'

- b. *Markus t-a-wance-y*
 PN MID.PFV-VAL-fall-SG.A.NR.PAST
 ‘Markus fell’
- c. *Markus-w pr pi nson b-a-wance-y*
 PN-SG.ERG tree 3.ABS 1SG.DAT 1SG.U-VAL-fall-SG.A.NR.PAST
 ‘Markus felled the tree for me’

(47a) is a clause with a transitive verb: the subject is case marked with the ergative suffix and the object with the absolutive postposition. In addition, the verb is inflected transitively, with a prefix agreeing in person with the absolutive object and a suffix agreeing in number with the ergative subject. This clause can be detransitivized into an intransitive middle construction by the prefix *a-* in (47b), indicating that the action affects the actor, not the direct object, as in the transitive clause of (47a). The now intransitive verb only has subject agreement for number by a suffix and in addition takes an intransitive middle prefix for perfective aspect *t-*. Finally, (47c) takes a prefix *a-* of exactly the same form and distribution, but now functioning as an applicative prefix in order to add a beneficiary as a core argument. This participant appears as the dative case marked pronominal for first person singular, but also as a prefix to the verb as its direct object, exactly as did the absolutive case marked direct object in (47a), although both person and number are now indicated instead of just person as in (47a).

This is a very strange pattern: the same form both reduces and increases transitivity in Ngkolmpu. But an explanation may be forthcoming from the languages of another sub-family of the Yam family, those of the Nambu sub-family like Nen. In this language there is a reflexive-reciprocal prefix which detransitivizes verbs and has several allomorphs, but one of these is *a-*:

- (48) Nen (Evans 2015)
bm k-a-waka-ta-Ø
 2.ABS MID-REFL-look.at-NDL.IPFV-2SG.IMP
 ‘look at yourself’

And a prefix of the form (*w*)*a-*, which functions as an applicative to promote beneficiaries to core argument and direct object status:

- (49) Nen (Evans 2015)
ynd nu n-a-w-az-na-n be-gta
 1SG.ERG water 2SG.U-BEN-CAUS-pour-IPFV.NPAST-1SG.A 2SG-DAT
 ‘I’m pouring water for you (SG)’

A quite plausible scenario for the origin of the strange homophony in Ngkolmpu is leveling of the allomorphs of the two prefixes we find in Nen, resulting in homophony for what were earlier two distinct prefixes.

5.4 External Possession

In a number of Papuan languages, the benefactive applicative marker is also used to indicate external possession. External possession constructions occur when a human possessor of a nominal argument occurs as a pronominal agreement affix on the verb or otherwise as its core argument, instead of being realized as a possessor constituent internally in a noun phrase. Externalization of possessors crosslinguistically occurs most commonly from direct objects, but some languages extend this to subjects of intransitive unaccusative verbs, and sometimes even beyond, as Kopar, for instance, allows externalization of possessors from oblique nominals. The types of nouns from which possessors can be externalized is also commonly restricted to those which are inalienably possessed, typically those which denote body parts, but again not always. Barupu is a language which uses the benefactive applicative affix to mark external possession and then expresses the externalized possessor through pronominal agreement for direct object:

(50) Barupu (Corris 2005)

- a. *bo k-en-e-ma-yǎrá*
 bum R-1SG.M.SUBJ-APPL_{BEN}-2SG.M.OBJ-see
 ‘I can see your (SG) bum’
- b. *tó mú n-ep-e-n-tón*
 breast milk IRR-3PL.M.SUBJ-APPL_{BEN}-1SG.F.OBJ-drink
 ‘they will drink my breast milk’
- c. *anoku k-er-e-nâ-irai-r-o-re*
 story R-3SG.M.SUBJ-APPL_{BEN}-1SG.M.OBJ-say-3SG.M.SUBJ-APPL_{FOR}-3PL.F.OBJ
 ‘he told my stories to them’

Yimas has an interesting twist in its external possession constructions. Externalized possessors of inalienably possessed nouns like body parts are expressed in basic transitive or ditransitive constructions, with a bound pronominal from the dative series to express the possessor:

(51) Yimas

- a. *ŋarwa wa-ŋa-kwalca-t*
 penis.IX.SG IX.SG.NOM-1SG.DAT-get_up-PFV
 ‘I have an erection’
- b. *yampaŋ k-mpu-ŋa-kra-t*
 head.VI.SG VI.SG.NOM-3PL.ERG-1SG.DAT-cut-PFV
 ‘they (PL) cut my hair’

But when the possessed nouns are alienably possessed, the applicative prefix *taŋ-*, normally beneficiary/comitative, is used, again with a bound pronominal for the external-

ized possessor from the dative series; however, the meaning here is typically malefactive for the externalized possessor:

(52) Yimas

- a. *impram* *p-ŋa-na-taŋ-tat-n*
 basket.VII.SG VII.SG.NOM-1SG.DAT-PRES-APPL-hold-PRES
 ‘(they) seize my basket’
- b. *manpa* *na-kay-taŋ-awkura-kr-mpun*
 crocodile.SG 3SG.NOM-1PL.ERG-APPL-get-REM.FUT-3PL.DAT
 ‘we (PL) will steal their (PL) crocodile’

6 Lookalike constructions

6.1 Promiscuous promotion to core from oblique without applicative marking

Languages sometimes permit promotion of an oblique participant to core argument status without any overt morphological marking, especially when that participant is a beneficiary. English, for example, is one such language: *John baked a cake for Mary*, *John baked Mary a cake*. Such promotion of beneficiaries to core without any applicative marking does not appear to be common among Papuan languages, but Coastal Marind is one such language, as in (20a). Yeri (West Palei sub-family, Torricelli family) is another, but permits this construction to extend far beyond beneficiaries to oblique participants with a range of semantic roles. Like Torricelli family languages generally, Yeri inflects verbs with bound pronominals for both subjects and objects. In Torricelli languages bound subject pronominals are prefixed, but bound object pronominals can be prefixes or suffixes. In some Torricelli languages like Urim, bound object pronominals are always suffixes or enclitics (see [17]), but in others like Mountain Arapesh, they can be either prefixes or suffixes depending on verb class (see [6f, g]). Yeri is particularly interesting in that the split between prefix or suffix for bound object pronominals is determined by person; first and second person bound object pronominals are always prefixed:

(53) Yeri (Wilson 2017)

- a. *y-b-ogera*
 2PL.SUBJ-1SG.OBJ-chase.R
 ‘you (PL) chased me’
- b. *wo* *n-w-osia*
 sun 3SG.M.SUBJ-1PL.OBJ-heat.R
 ‘the sun heats us’

- c. *lawiaki m-y-asikera*
 long_ago 1SG.SUBJ-2.OBJ-carry_on_hip.R
 ‘long ago I carried you’

Like English pronouns, bound object pronominals in Yeri distinguish number in first person, but not in second. Third person bound pronominals are suffixes (sometimes infixes for a minority of the most common verb roots, just over 10%). When suffixed, they cannot be directly added to the verb root. Rather before suffixation of the bound object pronominal, the verb root must first be augmented by another suffix with a number of allomorphs morphologically determined by the verb, here simply glossed as AUG:

- (54) Yeri (Wilson 2017)
 a. *y-ogera-we-i*
 2PL.SUBJ-chase.R-AUG-3PL.OBJ
 ‘you (PL) chased them’ (compare [53a])
 b. *w-okī hīlian w-gare-wa-n*
 3SG.F.SUBJ-use.R sand 3SG.F.SUBJ-dig.R-AUG-3SG.M.OBJ
 ‘she took the sand and dug it’

These bound object pronominals can be used to denote participants functioning as direct objects for a number of semantic roles that are typically realized as oblique constituents in other languages, but with no other morphological marking:

- (55) Yeri (Wilson 2017)
 a. recipient
te-n ta n-b-nobia hem
 3-M.SG FUT 3SG.M.SUBJ-1SG.OBJ-tell.R 1SG
 ‘he will tell me’
 b. beneficiary
ye ta n-w-a<ne>guti nanu-la hebi
 2SG FUT 2SG.SUBJ-1PL.OBJ-burn.R<3SG.M.OBJ> fish-SG 1PL
 ‘you (SG) will cook a fish for us’

Note the triple agreement in this example. Promotion of the beneficiary to core with this transitive verb *aguti-* ‘burn, cook’ derives a ditransitive verb. The original direct object *nanu-la* fish-SG continues to agree via a bound object pronominal as it would in an underived verb, i.e. by infixation, while the new added object agrees via the normal prefix for first person direct objects. There is no demotion of the original direct object when the oblique role is promoted to object function. With a third person benefactive, suffixation with augmentation occurs, again along with infixation for the original direct object:

(55) Yeri (Wilson 2017)

c. beneficiary

hem m-a<ne>guti-da-n nanu-la te-n
 1SG 1SG.SUBJ-burn.R<3SG.M.OBJ>-AUG-3SG.M.OBJ fish-SG 3-M.SG
 ‘I cooked a fish for him’

d. external possessor

huba n-y-ilkial yewal
 hawk 3SG.M.SUBJ-2.OBJ-pull.IRR eye
 ‘may the hawk pull out your eyes’

e. cause

yem tomal y-ana y-w-arwal hebi
 2PL PROH 2PL.SUBJ-come 2PL.SUBJ-1PL.OBJ-cry.R 1PL
 ‘don’t cry because of us’

f. goal

ta n-gei-ka-n nebal yewal-ti
 FUT 2SG.SUBJ-leave.R-AUG-3SG.M.OBJ tree eye-SG
n-anor-e-n yot-ua-n
 3SG.M.SUBJ-descend-AUG-3SG.M.OBJ DEM.FR.DIST-M.SG
 ‘you (SG) will put the cocoa beans into it there’

g. location

hasieki-l Ø-awil-a-i woli woli
 fire-PL 3PL.SUBJ-hang.R-AUG-3PL.OBJ side side
 ‘they have many lights on them’

h. accompaniment

pueti yot-u-n n-b-giekir
 betelnut DEM-NR.DIST-M.SG 3SG.M.SUBJ-1SG.OBJ-bend.R
 ‘that betelnut palm would bend with me’

In addition to this morphologically unmarked promotion to object, Yeri also has a canonical applicative marked by the suffix *-ki*; this can occur with (56b, c) or without (56a, d, e) a bound pronominal suffix. Most commonly it introduces a benefactive core participant, but can indicate other roles as well (56c, d, e):

(56) Yeri (Wilson 2017)

a. beneficiary

la magil Ø-y-ati-ki hasieki-l yem
 PAST who 3PL.SUBJ-2PL.OBJ-blow_on-APPL fire-PL 2PL
 ‘who blew on the fires for you (PL)?’

b. beneficiary

te-n n-ga-<Ø>kua-ki-da-m moti
 3-M.SG 3SG.M.SUBJ-wash.R<3SG.F.OBJ>-APPL-AUG-PL.OBJ pot
 ‘he washed pots for them’

c. cause

Ø-*b-ie*<*m*>*kewa-ki-da*-Ø

3SG.F.SUBJ-1SG.OBJ-be-angry.R<IPFV>-APPL-AUG-3SG.F.OBJ

‘she got angry with me because of it’

d. cause

te-i la Ø-*ogera-we-i-ki* *mana*-Ø

3-PL PAST 3PL.SUBJ-chase-AUG-PL.OBJ-APPL what-F.SG

‘what did they chase them for?’

e. goal/purpose

hebi la Ø-*aro* *nanai-ki* *nanu-bia*

1PL PAST 1PL.SUBJ-go.R go_in.R-APPL fish-PL

‘we went in for the fish’

6.2 Re-analysis of applicative morphemes into transitivity markers

The languages of the Finisterre-Huon sub-family of the Trans New Guinea family have re-analyzed what were applicative markers into conjugation markers for verb classes. Consider again the kind of applicatives through verb compounding with ‘give’ or ‘put’ for marking benefactives in Trans New Guinea languages by exemplified in (8). Already in Lower Grand Valley Dani this pattern of verb compounding to express pronominal direct objects is extended beyond only marking benefactive to indicating nearly all pronominal direct objects with human referents. In this language, very few transitive verbs can be inflected underived with bound pronominal prefixes for direct objects with human referents; in fact, the only verbs that can are (*w*)*at*- ‘hit, kill’, *hei*- ‘put’ and *ha*- ‘see’, the latter two of which have complex irregular and sometimes suppletive conjugations:

(57) Lower Grand Valley Dani (Bromley 1981)

a. *n-at-h-e*

1SG.OBJ-hit-R-3SG.SUBJ

‘he hit me’

b. *h-akeik-h-e*

2SG.OBJ-put-R-3SG.SUBJ

‘they put you (SG)’

All other verbs require one of the four supporting verbs, *hei*- ‘put’, *ha*- ‘see’, *et*- ‘give’ or *ap*- ‘do for’, to be compounded with them in order to co-occur with a bound object pronominal, which are prefixed to the supporting verb:

(58) Lower Grand Valley Dani (Bromley 1981)

- a. *hetamoʔ-n-et-h-e*
scold-1SG.OBJ-give-R-3SG.SUBJ
'he scolded me'
- b. *woʔ-n-ap-h-e*
take-1SG.OBJ-do_for-R-3SG.SUBJ
'he received me'
- c. *wam woʔ-n-et-h-e*
pig take-1SG.OBJ-give-R-3SG.SUBJ
'he gave me a pig'

Note that *et-* 'give' and *ap-* 'do for' do not occur as independent verbs, only as supporting verbs which must be compounded with another main verb, as in (58). A given main verb can often be compounded with multiple supporting verbs, for example *pa-* 'cut, sever, divide':

(59) Lower Grand Valley Dani (Bromley 1981)

- a. *wvt pa-n-ap-he-e*
initiation cut-1SG.OBJ-do_for-R-3SG.SUBJ
'he initiated me'
- b. *wam pa-n-et-h-e*
pig cut-1SG.OBJ-give-R-3SG.SUBJ
'he selected a pig for me' (compare [58c])
- c. *n-esi pa-n-eeik-h-e*
1SG.POSS-hair cut-1SG.OBJ-see-R-3SG.SUBJ
'she cut my hair' (external possession)
- d. *hakki pa-n-akeik-h-e*
bananas cut-1SG.OBJ-put-R-3SG.SUBJ
'he cut some bananas and put them aside for me'

Languages of the Finisterre-Huon sub-group of the Trans New Guinea family also require supporting verbs to carry bound object prefixes for transitive verbs. However, in these languages the semantic contrasts we find between them in Lower Grand Valley Dani is lost, so that each transitive verb occurs with only one supporting verb. In Selepet, for example, the supporting verbs are *ek-* 'see', *oho-* 'hit' and *ihi-* 'give', but the semantic contrasts motivating their usage in Lower Grand Valley Dani no longer holds, so the selection of supporting verb by any main verb seems synchronically arbitrary:

(60) Selepet (McElhanon 1970)

- a. *gʷi-n-ek-sa-p*
cut-1SG.OBJ-see-IM.PAST-3SG.SUBJ
'he cut me'

- b. *pene-n-ihī-a-p*
join-1SG.OBJ-give-IM.PAST-3SG.SUBJ
'he joined me'
- c. *tɔn-n-oħo-a-p*
help-1SG.OBJ-hit-IM.PAST-3SG.SUBJ
'he helped me'

With 1. the requirement that all transitive verbs save 'see', 'hit' and 'give' co-occur with a supporting verb, 2. the collapse of the semantic distinctions motivating the choice of supporting verb, and finally 3. the restriction of one and only one supporting verb specified for each main verb, the synchronic system of supporting verbs in Selepet simply reduces to transitivity marking morphology determined by verb class, fundamentally a set of conjugation classes. In some languages of the Madang sub-family of Trans New Guinea, the system collapses further to a single transitivity suffix, as in Tauya:

(61) Tauya (MacDonald 1990)

- a. *ʔumu-a-ʔa*
die-3.SG.SUBJ-IND
'he died'
- b. *ʔumu-fei-fe-a-ʔa*
die-3SG.OBJ-TR-3SG.SUBJ-IND
'he killed him'

With transitive verb roots, the transitivity suffix *-fe* derives ditransitive verbs, typically with beneficiaries, so here preserves something of its older applicative function so well attested elsewhere in Trans New Guinea languages:

(62) Tauya (MacDonald 1990)

- a. *wate eʔi-i-ʔa*
house make-3PL.SUBJ-IND
'they built a house'
- b. *wate eʔi-ya-fe-i-ʔa*
house make-1SG.OBJ-TR-3PL.SUBJ-IND
'they built me a house'

The language isolate Yale also exemplifies a system of verbal inflection that goes back to verb compounding with earlier supporting verbs now grammaticalized into conjugation markers. Verb roots in Yale belong to one of four conjugation classes. The primary distinction is between those verb roots which take prefixal and suffixal agreement for subjects and those which only take suffixes. The very few verb roots which take prefixal subject agreement belong to one class; all other verb roots take exclusively suffixal

agreement and in turn break down into three conjugation classes depending on the consonant that occurs between the subject and object bound pronominal suffixes:

(63) Yale (Aannestad, Campbell, and Campbell 2020)

- a. *hui-no-d-Ø-ë-o*
see-1SG.SUBJ-d-3SG.F.OBJ-1SG.SUBJ-DECL
'I see her'
- b. *swa-no-to-m-ë*
wash-1SG.SUBJ-t-3PL.OBJ-1SG.SUBJ
'I wash them'

The three consonantal conjugation markers are as follows:

- d the largest class, with no obvious semantic or syntactic grounds for the grouping; includes both transitive and intransitive verbs
- t found with transitive verbs whose subjects cause a change of state in their objects, e. g. 'slice', 'cut', 'sharpen', 'wash', 'cause something'
- b a small class of intransitive verbs denoting involuntary events, e. g. 'die', 'sleep'

Individual verb roots can shift between these conjugation classes with a corresponding change in semantics:

(64) Yale (Aannestad, Campbell, and Campbell 2020)

- a. *tëbo-dë-de*
be.ill-3SG.M.SUBJ-d
'he is ill'
- b. *tëbo-do-te-d-o*
be.ill-3SG.M.SUBJ-t-3SG.M.OBJ-DECL
'he made him ill'

This system is highly reminiscent of the patterns of conjugation by supporting verbs that we found in Trans New Guinea languages like Lower Grand Valley Dani and Selepet. These conjugation markers were originally verb roots in their own right, and in an earlier period of the language, all verbs took prefixes for subject agreement, though only three now preserve this older system. As in Selepet, over time the supporting verbs have become morphologically bound to the main verb resulting in the synchronic system of verb inflection:

(65) Yale (Aannestad, Campbell, and Campbell 2020)

- | | | |
|--|---|---|
| <ul style="list-style-type: none"> *<i>hui no-d-Ø-ë</i> see 1SG.SUBJ-give-3SG.F.OBJ-1SG.SUBJ | > | <ul style="list-style-type: none"> <i>hui-no-d-Ø-ë</i> see-1SG.SUBJ-d-3SG.F.OBJ-1SG.SUBJ 'I see her' |
|--|---|---|

Indeed, it is obvious that the *-d* of the *d*-conjugation class is sourced in none other than the verb root ‘give’ (compare with the Selepet form in [60b]):

(66) Yale (Aannestad, Campbell, and Campbell 2020)

- a. *kide-ne-d-Ø-ë-o*
abandon-1SG.SUBJ-*d*-3SG.F.OBJ-1SG.SUBJ-DECL
‘I left it behind’
- b. *në-d-Ø-ë-o*
1SG.SUBJ-give-3SG.F.OBJ-1SG.SUBJ-DECL
‘I gave (it) to her’

This re-analysis of supporting verbs which originally functioned like applicatives into licensors for bound object pronominals for human referents, especially speech act participants like first and second person, and ultimately into morphologically determined transitivity markers is attested among Papuan languages of various families, but is especially widespread among sub-families of the vast Trans New Guinea family.

6.3 Re-analysis of applicatives into pronominals

Abui (Alor-Pantar sub-family, Trans New Guinea family) (Kratochvíl 2007, 2011) illustrates another pathway of re-analysis for applicative morphemes, but this one seems much less common outside of languages spoken on Alor Island. Abui and some other languages of Alor such as Adang (Robinson and Haan 2014) and Kamang (Schapper 2014) have multiple sets of bound pronominals, each associated with a different semantics. Here is the basic system in Abui:

Table 1: Abui pronominals (Kratochvíl 2011: 591).

		A		U			
			PAT	REC	LOC	GOAL	BEN
SG	1	<i>na</i>	<i>na-</i>	<i>no-</i>	<i>ne-</i>	<i>noo-</i>	<i>nee-</i>
	2	<i>a</i>	<i>a-</i>	<i>o-</i>	<i>e-</i>	<i>oo-</i>	<i>ee-</i>
PL	1EXCL	<i>ni</i>	<i>ni-</i>	<i>nu-</i>	<i>ni-</i>	<i>nuu-</i>	<i>nii-</i>
	1INCL	<i>pi</i>	<i>pi-</i>	<i>pu-/po-</i>	<i>pi-</i>	<i>puu-/poo-</i>	<i>pii-</i>
	2	<i>ri</i>	<i>ri-</i>	<i>ri-/ro-</i>	<i>ri-</i>	<i>ruu-roo-</i>	<i>rii-</i>
	3	Ø	<i>ha-</i>	<i>ho-</i>	<i>he-</i>	<i>hoo-</i>	<i>hii-</i>

The actor pronouns are free forms, but all five of the undergoer series of pronouns are bound prefixes. The basic opposition of actor versus undergoer is correct here, as Abui clausal structure is organized along rough semantic lines that contrast these notions, not subject and object: schematically, the actors of both transitive and unerga-

tive intransitive verbs occur with the actor set of pronouns, while undergoers of both transitive and unaccusative intransitive verbs select one of the undergoer pronominal prefixes. Formally it is clear that all of the undergoer prefixes except those for patients are derived from the patient form plus a vowel: REC *o*, LOC *e*, GOAL *oo* and BEN *ee*. These vowels look like applicative prefixes and certainly their syntactic behavior with transitive verbs suggests that:

(67) Abui

- a. *na a-ruidi*
1SG.A 2SG.PAT-wake_up.PFV
'I woke you (SG) up'
- b. *Fanmalei no-k yai*
PN 1SG.REC-throw laugh.PFV
'Fanmalei laughed at me'
- c. *a palootang ne-l bol*
2SG.A rattan 1SG.LOC-give hit
'you (SG) hit me with a stick'
- d. *a noo-dik*
2SG.A 1SG.GOAL-prick
'you (SG) are poking me'
- e. *ma na ee-bol*
be 1SG.A 2SG.BEN-hit
'let me hit (it) for you (SG)'

The same verb root can commonly occur with multiple undergoer prefixes with different meanings:

(68) Abui

- a. *wik ha-wik no-wik*
'carry' 3.PAT-carry 1SG.REC-carry
'carry him' 'carry for myself'
he-wik noo-wik nee-wik
3SG.LOC-carry 1SG.GOAL 1SG.BEN
'carry it' 'let me carry' 'carry for me'
- b. *rumai ha-rumai no-rumai*
'strong' 3SG.PAT-strong 1SG.REC-strong
'strengthen it' 'I feel strong'
he-rumai noo-rumai nee-rumai
3SG.LOC-strong 1SG.GOAL-strong 1SG.BEN-strong
'it is strong' 'rely on me' 'strong for me'

All of this is remarkably reminiscent of the different semantics for the choice of supporting verbs in Lower Grand Valley Dani exemplified in (59), and in fact Kratochvíl (2007: 2005) argues that the contrastive vowels, plausibly applicatives in the examples in (67), of at least some of the undergoer prefixes go back to older incorporated verb roots, **a* ‘be at’, **e* ‘add, continue’, **o* ‘point’:

(69) Abui (Kratochvíl 2007: 2005)

- a. **na-a* *fanga* > **n-a=fanga* > *na-fanga*
 1SG-be_at say 1SG-be_at=say 1SG.PAT-say
 ‘tell/order me’
- b. *ha-e* *fanga* > **h-e=fanga* > *he-fanga*
 3SG-add say 3-add=say 3.LOC-say
 ‘say it’
- c. **na-o* *fanga* > **n-o=fanga* > *no-fanga*
 1SG-point say 1SG-point=say 1SG.REC-say
 ‘scold me’

This scenario of re-analysis would suggest that Abui is just another example of the common process in Papuan languages of re-analyzing verbs in compound or serial verb constructions into applicative morphemes. Like the use of supporting verbs in other Trans New Guinea languages, the original lexical semantics of these verbs has been bleached, so that they essentially signal the typical semantic roles of oblique participants, like canonical applicative affixes crosslinguistically. But a purely applicative analysis of these forms simply cannot be synchronically correct for Abui, for whatever the plausible origin of these pronominal prefixes in verbs and whatever their apparent applicative functions in (67), this analysis is no longer tenable, since they can now be used to denote undergoers of unaccusative intransitive verbs. Appearing on single argument intransitive verbs, an applicative function is not possible:

(70) Abui

- a. *na-kaai*
 1SG.PAT-stumble
 ‘I stumbled’
- b. *no-bui*
 1SG.REC-short
 ‘I am short’
- c. *he-beeka*
 3SG.LOC-bad
 ‘it is bad’
- d. *noo-lila*
 1SG.GOAL-hot
 ‘I feel hot’

So, while the contrasting vowels of the sets of undergoer prefixes in Abui may have started out as verbs, which were then re-analyzed into applicative prefixes in the common pathway we have seen in Papuan languages, they can no longer be analyzed as such. Rather, they are synchronically simply semantically contrastive sets of bound pronominals. What seems to be responsible for this rare development in Abui is its thoroughgoing actor-undergoer split. Due to the basic actor-undergoer contrast that is pivotal to the clause level grammar of Abui and crosscuts transitivity, once undergoers of transitive verbs exhibited these semantic contrasts in pronominals, this would spread to undergoers of intransitive verbs, rendering any applicative function obsolete and any such analysis of these forms untenable.

6.4 Information structure markers from applicatives

Some languages of the Lower Ramu family illustrate yet another type of re-analysis of an earlier applicative, here into an information structure marker. Consider the case of Watam. In this language all oblique arguments are case marked by postpositions, while subjects and inanimate direct objects are unmarked (animate direct objects are usually, though not obligatorily, marked with the dative postposition *mo*). Word order of core arguments is free, but they must precede the verb; oblique arguments can follow the verb, but crucially they cannot immediately precede the verb:

(71) Watam

- a. *was nakan padon an mo panai-ri nimon mba*
wind big tree D do bend-PAST night LOC
'a big wind bent the tree at night'
- b. *nimon mba padon an was nakan mo panai-ri*
night LOC tree D wind big do bend-PAST
'a big wind bent the tree at night'
- c. **was nakan padon an nimon mba mo panai-ri*
wind big tree D night LOC do bend-PAST
- d. *namot an yak mo rung-ri endau nik*
man D 1SG DAT hit-PAST house inside
'the man hit me inside the house'
- e. *endau nik yak mo namot an rung-ri*
house inside 1SG DAT man D hit-PAST
'the man hit me inside the house'
- f. **namot an yak mo endau nik rung-ri*
man D 1SG DAT house inside hit-PAST

This permutability of constituents, however, is not the whole picture of Watam clausal constituency. With the addition of the prefix *nga-* with various allomorphs, oblique con-

stituents can immediately precede the verb and be stripped of their case marking postposition (72a), although semantically fuller postpositions remain (72b):

(72) Watam

- a. *was nakan padon an nimon nga-mo panai-ri*
 wind big tree D night NGA-do bend-PAST
 ‘a big wind bent the tree at night’
- b. *namot an yak mo endau nik nga-rung-ri*
 man D 1SG DAT house inside NGA-hit-PAST
 ‘the man hit me in the house’

The placement possibilities for oblique constituents with *nga-* marked verbs are exactly the opposite of those without *nga-*. They can only immediately precede the verb; any other order is ungrammatical:

(73) Watam

- a. **endau nik namot an yak mo nga-rung-ri*
 house inside man D 1SG DAT NGA-hit-PAST
 ‘the man hit me in the house’
- b. **namot an yak mo nga-rung-ri endau nik*
 house D 1SG DAT NGA-hit-PAST house inside
 ‘the man hit me in the house’

These data suggest that *nga-* is a type of applicative promoting an oblique constituent to core status, although the postposition remaining in examples like (72b) is problematic. While the origins of *nga-* were applicative in function, as indicated by Aruamu/Mikarew examples in (78)–(80) below, problematic for a such an analysis in Watam synchronically is the fact that core arguments also co-occur with *nga-* marked verbs and are subject to the same absorption of case postposition and restriction on movement as oblique arguments:

(74) Watam

- a. *namot an yak nga-rung-ri*
 man D 1SG NGA-hit-PAST
 ‘the man hit me’
- b. **yak namot an nga-rung-ri*
 1SG man D NGA-hit-PAST
 ‘the man hit me’ (compare [71e])

The verb root *rung-* ‘hit’ is transitive with two core arguments, a hitter and a hittee, so in no sense can *nga-* be claimed to be functioning as an applicative in (74a) because no argument is being added to this verb’s argument array and there is no promotion of

an oblique argument to core status. Nor does it function adverbially without adding arguments, as with the Yimas applicatives in (41); no such meaning is added in (74a) as opposed to (71d). Also, adverbs can co-occur with *nga*-marked verbs; adverbs are not arguments at all, so, again, there is no promotion of an oblique argument:

(75) Watam

- a. *ma ama nga-sang-ri*
3SG again η GA-go-PAST
'he went again'
- b. *namot an yaon ga-bop-ri*
man D good η GA-speak-PAST
'the man spoke well'

So, while *nga*- originated as an applicative morpheme and still often functions like one, in other cases like (74) and (75) it clearly does not. So, what is its function? It is a marker of information structure, indicating the constituent immediately preceding the *nga*-marked verb is focused. Consider these mini-dialogs:

(76) Watam

- a. Q: *u sumba?*
2SG to_where
'where are you going?'
A: a: *yak manjar nga-san-ta*
1SG beach η GA-go-PRES
b: **yak manjar san-ta*
1SG beach go-PRES
'I'm going to the beach'
- b. Q: *tai mo namot an rugu-r minik-ri?*
who DAT man D hit-R die-PAST
'who did the man kill?'
A: a: *namot an Matit nga-rugu-r minik-ri*
man D PN η GA-hit-R die-PAST
'the man killed Matit'
b: **Matit mo namot an nga-rugu-r minik-ri*
PN DAT man D η GA-hit-R die-PAST

Only the (a) answers in (76) are acceptable responses to the posed questions. The questions set up the place I am going to or the person killed by the man as focused information, highlighted as being sought by the questioner. When supplied in the answer, it must be in the focused position selected by a *nga*-marked verb. The following contrastive examples further demonstrate this usage:

(77) Watam

- a. *ma njinak an ore-r angi-ri*
 3SG knife D find-R take-PAST
 (looking for a knife) 'he found the knife'
- b. *ma njinak ŋg-ore-r angi-ri*
 3SG knife ŋGA-find-R take-PAST
 (looking for something else) 'he found a knife'

In (77a) *njinak* 'knife' is already activated in discourse; what is under discussion is the search for a particular knife. Consequently when found, the event is reported without the use of *ŋga*. In (77b) the topic under discussion is the search for some object; *njinak* 'knife' is unactivated. When it is reported that a knife is found, *njinak* 'knife' is now focused information, and as such must be presented in the focused immediately pre-verbal position in combination with a *ŋga*-marked verb. Clearly, *ŋga*- now mainly functions as a discourse based information structure marker for focused constituents. Whatever applicative function it now has is clearly secondary, though that is its ultimate origin, as the applicative function of its cognate prefix *g*- is more transparent in another Lower Ramu language, Aruamu/Mikarew (*g*- has an allomorph, *ba*- with verb roots with a following /o/ which then deletes if immediately following the /a/ of the prefix) (Relyea 1992a, 1992b):

(78) Aruamu/Mikarew

- a. *me ikerar-i*
 3PL play-PRES
 'they (PL) are playing'
- b. *me soka g-ikerar-i*
 3PL soccer APPL-play-PRES
 'they (PL) are playing soccer'

(79) Aruamu/Mikarew

- a. *Araka bogonaro-n ot-e*
 PN yesterday-OBL give_birth-PAST
 'Araka gave birth yesterday'
- b. *Araka bogonaro-n guivi-m ba-(o)t-e*
 PN yesterday-OBL daughter-SG APPL-give_birth-PAST
 'Araka gave birth to a daughter yesterday'

(80) Aruamu/Mikarew

- ko ofos-n John ba-to*
 1SG office-OBL PN APPL-arrive.PAST
 'I met John at the office' (lit. 'arrived with/at John')

7 Conclusion

In spite of the enormous genetic and typological diversity of Papuan languages, it is possible to make a few generalizations about their patterns of applicativization. The following broad claims hold true:

Morphology

- Applicative morphemes in Papuan languages usually arise historically from re-analysis and grammaticalization of incorporated verbs. This seems invariably true of those languages with an OV left branching typology. In languages with a VO right branching typology, applicative morphemes developing from incorporated prepositions is attested.
- The degree of lexicalization of applicative morphemes in Papuan languages is unknown, but in the languages in which applicative morphemes have been most studied it seems negligible.

Syntax

- Papuan languages do not normally allow verbs to have more than three core arguments, so applicative constructions are typically restricted to intransitive and transitive verb roots.
- Applicative morphemes in Papuan languages are valency increasing; exceptions are when they function as adverbial modifiers, a not surprising double function given their origin in verbs.
- Most commonly, the applied participant assumes the grammatical relation of direct object and usurps the bound pronominal of the original direct object when an applicative construction occurs with a transitive verb. However, some languages (Barupu, Coastal Marind, Mian, Mountain Arapesh, Yimas) are examples of the crosslinguistic rarity of triple agreement languages and allow the original direct object to preserve its pronominal position and either double up on bound pronominal direct object marking or express the applied participant in a dative marked pronominal.
- Applicative constructions are commonly obligatory for benefactive participants, there being no basic construction with the beneficiary as an oblique constituent. This constraint is less binding for other types of semantic roles, though some languages like Barupu do insist on applicative constructions in all such cases.
- Where available, applicative affixes freely combine with causative affixes, as long as their combination does not exceed a derived ditransitive verb; hence such dual derivation is restricted to intransitive verb roots. Papuan languages normally lack voice oppositions like passives, so applicative morphemes cannot interact with them.

Semantics

Applicative morphemes in Papuan languages range from a single morpheme semantically unspecified (Amele, Mountain Arapesh) to a large inventory of them with rich semantic specifications (Barupu, Yimas).

Lookalikes and others

Non-applicative functions of applicative markers include their use as transitivity markers, their use as pronominals, and as a focalization device for preverbal constituents.

Abbreviations

A	actor
ABS	absolutive
ACCOMP	accompaniment
ADV	adverbial
ADVS	adversative
ALL	allative
AN	animate
APPL	applicative
AUG	augment
BEN	benefactive
CAUS	causative
COM	comitative
COP	copula
D	determiner
DAT	dative
DECL	declarative
DEM	demonstrative
DIST	distal
DL	dual
DUR	durative
ERG	ergative
EXCL	exclusive
EXT	extended aspect
F	feminine
FR.PAST	far past
FUT	future
HAB	habitual
IMP	imperative
IM.PAST	immediate past
INCL	inclusive
IPFV	imperfective
IND	indicative

INSTR	instrumental
INV	inverse
IRR	irrealis
ITER	iterative
KIN	kinetic
LOC	locative
M	masculine
MID	middle
N	neuter
NAFUT	non-asserted future
NDL	non-dual
NOM	nominative
NPAST	non-past
NR.DIST	near distal
NR.PAST	near past
NSG	non-singular
NVO	neutral verb orientation
OBJ	object
OBL	oblique
OVO	object verb orientation
PAST	past
PAT	patient
PC	paucal
PFV	perfective
PL	plural
PN	proper name
POSS	possessive
PREP	preposition
PRES	present
PROG	progressive
PROH	prohibitive
Q	question
R	realis
REC	recipient
REFL	reflexive
REM.PAST	remote past
SG	singular
SEP	separative
SEQ	sequence
SUBJ	subject
SUR	surrounding
TR	transitive
U	undergoer
VAL	valence
VIS	visual
1, 2, 3	grammatical persons
I, II, . . .	noun classes

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