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Categorizing possession in Zuanga-Yuanga and other Kanak languages (New Caledonia): a typological perspective

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Abstract: Like many other Oceanic and Kanak languages of New Caledonia, Zuanga-Yuanga [ZY] has classifiers restricted to the possession of nouns denoting food, drink, animals and plants; it also has dichotomous direct and indirect adnominal possessive constructions, which are generally labeled inalienable or alienable in the Oceanic literature. These terms refer to a distinction between close versus distant structural marking, which do not strictly correlate with lexical-semantic categories. For instance, kinship nouns are split over the two types of constructions, distinguishing reference from address kinship terms, not in terms of semantic distinctions between close versus distant kinship types. The split for body-part nouns is between directly possessed dedicated terms and indirectly possessed metaphorical body terms, not in terms of permanent versus removable parts, or temporary body properties. In ZY possessive constructions correlate with fairly strict possessee noun classes belonging to one single structural class (directly or indirectly marked). Only a limited number of nouns denoting parts-of-whole have alternate constructions expressing different semantic relations to the possessed noun.

Keywords: alienability distinctions; New Caledonia; noun classes; Oceanic; possessive classifiers; split possessive constructions

1 Introduction

The focus of this study is Zuanga-Yuanga, an Oceanic language belonging to the Austronesian family and spoken in northern New Caledonia. It comprises three dialectal variants[1] spoken in different areas, in the villages of Gomen [GO], and

1 The name Zuanga-Yuanga itself reflects one of the phonological differences between these dialects, i.e., the interdental /ð/ in the Zuanga [ðuaŋa] dialects of GO and PA corresponds to /j/ in the Yuanga [juaŋa] dialect of BO. With respect to other morpho-syntactic and morpho-phonological distinctions,

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further inland in the mountain range, those of Paimboa [PA] and Bonde [BO].[2] Throughout this study these dialects will be referred to by their respective abbreviations.

A study of possessive constructions in Nêlêmwa (Bril 2002, 2013), a neighbor of Zuanga-Yuanga, will be mentioned for comparison. Nêlêmwa (NEL) is spoken in the northernmost tip of the Grande Terre (the main island), around Poum, and Zuanga-Yuanga (ZY) to the south of this area. They belong to the same group of extreme-north Kanak languages, together with Nyelâyu (YAL). Data from other northern Kanak languages will also be discussed, Nemi (NMI), Vamale (VAM), Bwatoo (Koné dialects), Cèmuhî (CEM), Paicî (PAC) (see Map 1), and further south, Xârâcùù, Tîrî as well as two languages of the Loyalty Islands of New Caledonia (Iaai and Drehu) (not on the map in Figure 1).

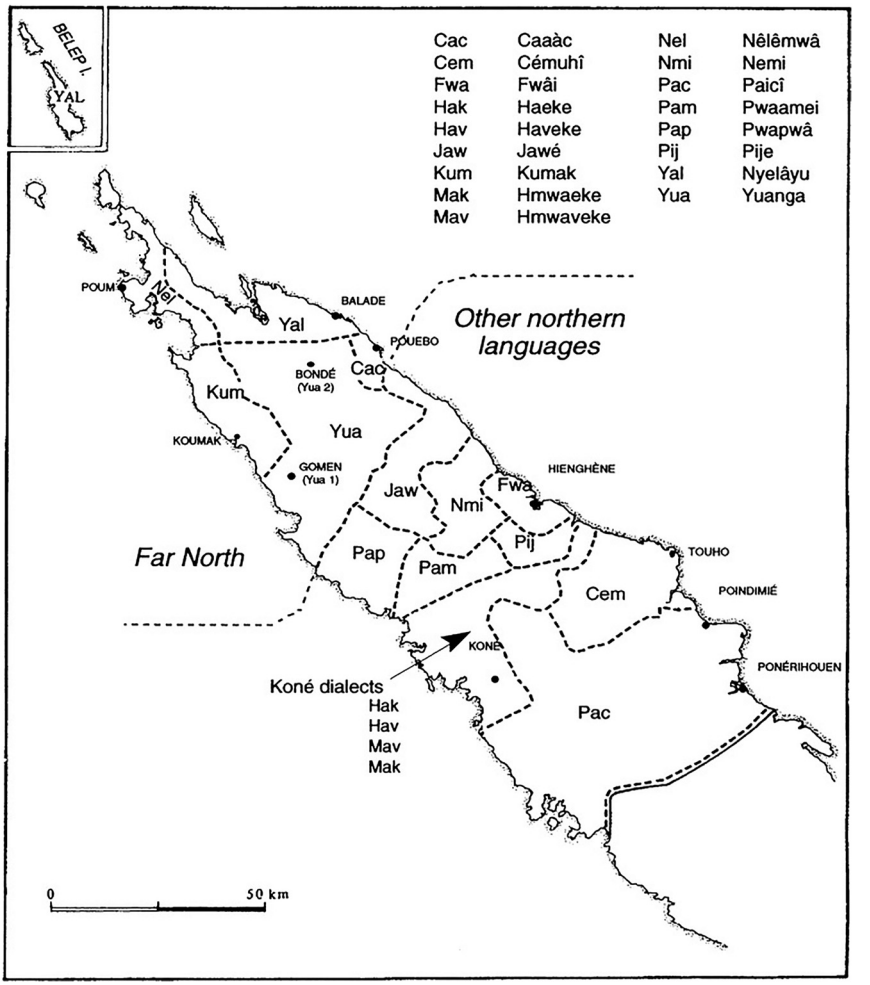
1.1 Defining adnominal possession

Crosslinguistically, splits between direct and indirect adnominal possessive constructions correlate with the weight and cohesion of encoding. "If a language has an adnominal alienability split, and one of the constructions is overtly coded while the other one is zero-coded, it is always the inalienable construction that is zero-coded, while the alienable construction is overtly coded" (Haspelmath 2017: 199). This prediction is borne out in Oceanic and Kanak languages. Another feature is the "cohesion scale" defined as follows: "In no language will the linguistic distance between X and Y be greater in signaling inalienable possession, in expressions like 'X's Y', than it is in signaling alienable possession" (Haiman 1983: 793, quoted in Haspelmath 2017: 207).

The reasons behind such coding splits and the explanations for it are varied and are discussed in the wide literature on this topic, among them (Aikhenvald 2013; Chappell and McGregor 1989, 1996; Haspelmath 2017; Lichtenberk 1985a, 2004, 2009a, 2009b; Nichols 1988; Nichols and Bickel 2005, 2013). Some definitions correlate dichotomous possessive constructions to the semantics of control, permanence and inherent relation versus their opposite feature, while others like Nichols (1988) consider alienability splits as a structural phenomenon and a label for types of constructions correlating with noun classes on the grounds that "no account of the

PA appears to be a transitional dialect between GO and BO, the Bonde dialect being closer to Nêlêmwa, both geographically and in terms of shared features.

2 The corpus and data were collected during five months of fieldwork between 2006 and 2011 and were conducted with some 25 native speakers in various villages around Gomen and in Paimboa. I warmly thank all the collaborators who participated in this research.



Map 1: Northern New Caledonian languages (Ozanne-Rivierre 1995: 45).

semantics of possession types will accurately predict the membership of the 'inalienable' set of nouns either within one language or crosslinguistically" (Nichols 1988: 568). Haspelmath (2017: 193–194) also predicts that the construction types are attributable to frequency asymmetries and that "additional marking is found when the possessive relationship is less predictable".

The possessive constructions in ZY are now defined and analyzed against this background.

1.2 Defining adnominal possession in ZY

Lichtenberk (1985a: 125–126) acknowledges that in many Oceanic languages, possessive constructions are not fully predictable from the semantics of the relationship, but he still considers that the "possessive systems of most Oceanic languages are by and large semantically based". Pawley and Sayaba (1990: 167–168) hold similar views, stating that in Fijian languages "certain nouns belong to strict and semi-arbitrary noun classes for purposes of possessive-marking, others show marking consistently following semantic[3] […] relations holding between possessed and possessor". On the other hand, Geraghty (1983: 242) writes, "while there may well have been a time in the history of the Fijian languages when the inherent semantic property of inalienability alone determined how a noun was possessed, the situation has now changed in most Fijian languages, and semantically inalienable nouns are not all possessed in the same way".

Oceanic languages actually display a cline of tight or loose correlations between possessee noun classes, types of possessive constructions, and the semantics of alienability.

For instance, in Manam (Lichtenberk 1985b) and Paamese (Vanuatu, Crowley 1996), direct or indirect possessive constructions and semantic distinctions (inherent vs. contingent) are strongly correlated, independently from noun classes. Fijian languages according to Pawley and Sayaba (1990: 167–168) have an intermediate position with some "strict and semi-arbitrary noun classes" restricted to one single type of possessive marking on the one hand, and constructions varying with the kind of conceptualized relations "for instance expressing an opposition between possession of goods for consumption and goods as property".

Like other Oceanic languages, the Kanak languages of New Caledonia – among which, Zuanga-Yuanga (ZY) and Nêlêmwa (NEL) – have a pattern of direct or indirect possessive constructions. ZY and NEL (like some other Kanak languages) also have possessive classifiers used for nouns denoting food, drink, and possession of animals and plants.

In ZY, directly possessed nouns are marked by possessive suffixes or by directly postposed possessor nouns, while indirect possession is marked by prepositions or linkers. Direct and indirect possessive constructions correlate with fairly rigid possessee noun classes,[4] which usually belong to a single structural class and allow few alternate constructions. Only a limited number of nouns occurring in parts-of-whole

3 The semantic classes referred to by Pawley and Sayaba (1990: 150) in their description of Fijian are "kinship, body-parts and natural parts of a natural object, manufactured part, food, drink, spatial relations, etc.".

4 These possessee noun classes are defined by their type of possessive construction, direct or indirect.

relations have alternate constructions with semantic differences denoting inherent versus contingent relations (discussed in Section 5). Another essential feature of ZY is that direct or indirect possessive constructions cannot be fully predicted from lexical-semantic categories such as kinship terms and body parts, which are heterogeneous. There is thus some broad correlation between direct and indirect possessive constructions and the notion of (in)alienability, but this correlation is somewhat inconsistent. Consequently, following Nichols (1992: 117), it is considered that "the term inalienable, […] refers not to a semantic constant having to do with the nature of possession, but to whatever set of nouns happens to take inalienable possession marking in a given language".

Haspelmath (2017: 198) defines an alienability split for possessed nouns as follows: "a construction used characteristically with kinship and/or body-part possessed nouns is an inalienable possessive construction, while a construction that is characteristically not used with kinship and/or body-part possessed nouns is called an alienable possessive construction. When a language has two constructions of this kind, we can say that it makes an alienability contrast, and we can call the nouns occurring in the inalienable construction inalienable nouns, and those occurring in the alienable construction alienable nouns."

The challenge in ZY and NEL is that body parts and kinship terms occur in direct and indirect constructions for grammatical and structural reasons (explained in Sections 3.3.2 and 4),[5] but they do not express clear semantic distinctions. This supports the notion that the split in possessive constructions in ZY primarily correlates with possessee noun classes and secondarily with the semantics of possession. Directly possessed nouns are inalienable and indirectly possessed nouns are alienable in that structural sense. The terms inalienable or alienable are thus taken as labels for structural types of possessive marking, not as consistent semantic characterizations of possession.

In ZY, the main possessed noun classes are (i) bound nouns, (ii) free nouns and (iii) a few non-possessible nouns. Bound nouns have a construct~absolute suffix that allows them to occur without a possessor and which is replaced by a direct possessor. Free nouns are possessible nouns that do not have the absolute suffix, they subdivide into those which are:[6]

(i) possessed with classifiers (classifiers are themselves directly possessed nouns)
(ii) directly possessed
(iii) indirectly possessed by prepositions (all loan words belong to this class);

5 It is also true of other Kanak languages, and more generally of many Oceanic languages including Fijian.

6 Defined by Bugaeva et al. (2021: 5) as "a noun or noun class that may, but is not required to, have possessive morphology".

summarizes the above.

Table 1: Types of possessed noun classes.

	Bound nouns [PA BO only]	Free nouns		
Possession type	Direct	Indirectly possessed by classifiers CL-POSS.SUFFIX POSSESSEE	Direct	Indirect with prepositions

The analysis proceeds as follows. Section 2 presents the general morphosyntactic features of direct and indirect possessive constructions in ZY. Section 3 discusses the main possessed noun classes and their possessive constructions, starting with bound nouns (Section 3.1); nouns possessed with classifiers (Section 3.2); and directly possessed free nouns are analyzed in Section 3.3, while indirectly, prepositionally possessed free nouns are presented in Section 3.4. Section 4 discusses kinship terms showing them to be a split class; Section 5 presents alternate constructions in relation to parts-of-whole (meronymic) possessive constructions, and Section 6 discusses the possessive construction of compound nouns comprising non-possessible nouns. The remaining sections present these same adnominal possessive constructions with other types of possessees, viz. nominalizations (Section 7), spatial nouns (Section 8), some of which originate in body-part nouns; quantifier and partitive nouns (e.g., 'part of', 'amount of') (Section 9), some of which are subtypes of parts-of-whole relations; and modal nouns (Section 10). Section 11 concludes the article.

2 The morphosyntactic features of adnominal possession in Zuanga-Yuanga

ZY is head-marking. In verbal constructions, the verb is initial, and nominal arguments are post-verbal, generally with (s)VOS order, while pronominal indexes have sVo order. In adnominal possessive constructions, the possessee is the head and precedes the possessor.[7]

2.1 Morphosyntactic features

The pronominal possessive suffixes in the Zuanga-Yuanga dialects are represented in Table 2. One of the differences between the three dialects is the loss of all final

7 See Palmer and Brown (2007), Lichtenberk (2009b) for discussions on headedness.

consonants in GO, which entailed the loss in GO of the original possessive suffixes for all three singular persons, which are cognate with the Proto-Oceanic possessive pronouns (1sg *-*ŋku*, 2sg *-*mu*, 3sg *-*ña*, Pawley 1973),[8] and which are retained in PA and BO as 1sg –*ny* [ɲ], 2sg -*m*, 3sg –*n*. In the GO lect, these former possessive pronominal suffixes were replaced by the paradigm of object pronoun suffixes (see Table 2). Compare *kiò-ny* [PA BO] and *kiò-nu* [GO] 'my belly'.

Table 2: Pronominal possessive suffixes in the Zuanga-Yuanga dialects.

	Possessive suffixes			**Object & oblique suffixes**	
	G	PA, BO	**POc**[a]	GO	PA, BO
1sg	*-nu*	*-ny*	*-(ŋ)ku	*-nu*	*-nu*
2sg	*-ç̈ö*	*-m*	*-mu	*-ɟo*	*-yö*
3sg	*-ɟe*	*-n*	*-ña	*-ɟe*	*-ɟe/ye*
1du.excl	*-^{m}bî*	*-^{m}bin*		*-^{m}bî*	*-^{m}bin*
1du.incl	*-î*	*-î*		*-î*	*-î*
1tr.excl	*-me*	Ø		*-me*	Ø
1tr.incl	*-õ*	Ø		*-iõ*	Ø
1pl.excl	*-(i)va*	*-yaa/-zaa*	*-[ma]mi	*-va	*-ya/-zaa*
1pl.incl	*-ã*	*-ã*	*-(n)ta	*-(h)ã	*-(h)ã*
2du	*-ç̀ò*	*-yò*		*-ɟò	*-yò*
2tr	*-we*	Ø		*-we	Ø
2pl	*-wa*	*-zòò*	*-m[i]u	*-wa	*-zòò*
3du	*-li*	*-li*		*-li	*-li*
3tr	*-lò*	Ø		*-lò	Ø
3pl	*-laa*	-laa	*-dra[b]	*-la	*-laa*

[a]Proto-Oceanic reconstructions, Pawley 1973. [b]POc *-*d*-, *-*r*- becomes Proto-Neo-Caledonian *^{n}*ɖ* which is reflected as -*ɽ*-, -l- [GO], and -l- [PA BO] (Bril 2020).

Except for the first three singular possessive suffixes, the other possessive suffixes and suffixed object pronouns are identical for all other persons in the three lects GO, PA, BO.

Another noteworthy and specific feature of the GO dialect is the existence of trial pronouns for 1st, 2nd and 3rd persons, with clusivity distinctions for 1st person (Table 2). Suffixed possessive pronouns do not mark gender, only number.

In ZY as in NEL, direct constructions are marked by personal possessive suffixes (1a), or by directly postposed possessor nouns (1b). Indirect constructions are marked by prepositions and oblique pronominal suffixes (see the paradigm in Table 2) as in (2a)–(2b). Thus, direct possessive constructions display a tighter structural relation than indirect constructions.

8 Lynch et al. (2002: 67) reconstruct: *-*gu* 1sg, *-*mu* 2sg, *-*ña* 3sg.

(1) a. *avwõnõõ-n*[9] [PA BO]
village-3SG
'his/her village, his/her dwelling'
b. *avwõnõ kãgu* [GO PA BO]
village spirit
'the dwellings of the spirits'

(2) a. *vhaa i je* [GO PA BO]
speech PREP 3SG
'his/her speech'
b. *vhaa i whamã* [GO PA BO]
speech PREP elderly
'the words of the elderly'

Semi-direct possessive constructions do not occur with a distinct possessee noun class, but are an alternate construction for some nouns expressing parts-of-whole relations of a more transient, contingent nature (see Section 5). They are marked by a now accreted, suffixed linker *–a*, possibly cognate with POc *ka2, which is a marker of uncontrolled possessive relation (Pawley 1973). It is called semi-direct, because the possessor, if pronominal, is suffixed to the accreted linker as in (3b), if nominal, it is postposed as in (3a)–(3c).

(3) a. *drööa kui* [GO] 'a pot of yams' (*drööa* 'pot', *kui* 'yam') (i.e., a pot containing yams)
b. *drööa-nu* [GO] 'my cooking-pot'
c. *thîni-a kavwègu* [GO] 'the fence of the chiefdom' (*thîni* 'fence')

2.2 Stem allomorphies of directly possessed nouns and diachrony

Some directly possessed nouns have allomorphic stems but are otherwise directly possessed. Some of these allomorphies result from diachronic processes such as the attrition of the non-possessed stem, or an accreted linker on the possessed stem (see Section 2.2.4). These allomorphic stems distinguish possessive from modifying constructions (see Section 2.2.3).

9 Suffixed possessive pronouns lengthen the final vowel.

2.2.1 Length variation

Length variation of directly possessed nouns is a common feature of northern and other Kanak languages. A pronominal possessor preserves the long vowel of the root or lengthens it if the root vowel is short, while a nominal possessor tends to shorten a long vowel in the root form.

Free stem	pronominal possessor	nominal possessor
kò [GO], *kòò-n* [PA][10]	*kòò-nu* [GO], *kòò-ny* [PA]	*kò kuau=ã* 'the legs of this dog'
'foot, leg'	'my foot'	*kò uva* 'the lower part of the taro'
hii [GO], *hii-n* [PA]	*hii-je* [GO], *hii-n* [PA]	*hi thoomwã=ã*[11] 'this woman's fingers'
'arm, hand'	'his/her hand'	*hi pwaji=ã* [GO] 'the claws of this crab'
cii [GO], *cii-n* [PA]	*cii-ny* [PA BO]	*ci phwa-n* [PA BO] 'his lips'[12]
'skin'	'my skin'	(skin mouth-his)

2.2.2 Stem allomorphies due to attrition of the non-possessed stem

Some stem allomorphies result from the attrition of a former disyllabic word to a mono-syllabic free stem, whose second syllable re-appears in the possessed form.[13] For instance, *b(w)ò* [GO], *b(w)òn* [BO] 'day, date' has a possessed form *b(w)òni-* [GO, PA, BO] (cognate with POc *mpoŋi).

(4) *b(w)òni-ã* *mõnõ* [GO]
date-1PL.INCL tomorrow
'our (set) date tomorrow'

Similarly, *wõ* 'boat' has a possessed form *wõjo-* (cognate with POc *waŋka), similar to *waja* in Nêlêmwa:[14]

(5) [GO] *wõ* 'boat'; *wõjo-nu* 'my boat'
[PA] *wõny* [wɔ̃ɲ] 'boat'; *wõjo-ny* 'my boat'
[NEL] *wany* [waɲ] 'boat'; *waja-ny* 'my boat'

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10 These nouns are bound nouns in PA and BO: *kòò-n* 'foot', *hii-n* 'hand', *cii-n* 'skin'. The CST *–n* is replaced by the possessor noun.

11 Compare with the compound *hii-n thoomwã* [PA] 'thumb' (lit. finger-CST woman).

12 The noun *cii* 'skin' when possessed is frequently associated with a specific body-part; *cii-ny* 'my skin' would occur in contrast with bones for instance (skin and bones).

13 Ozanne-Rivierre (1991: 328) discusses some cases in other Kanak languages, showing that due to stress position, the second syllable was protected by the possessive suffixes in possessive constructions.

14 Similar allomorphies occurs in NEL, often with the same words (Bril 2013); see Bril (2020) for the phonetic correspondances with POc.

In other cases, a vowel reflecting the etymon occurs in the possessed form. Thus, *ka* 'year' has a possessed form *kau-* 'age, year' (POc *taqun), compare *kau-m* [PA] 'your age' with [GO] *kau-çö* in (6).

(6) *Pòniza* *kau-çö ?* [GO]
how.many year-POSS.2SG
'How old are you ?' (lit. how many your years ?)

2.2.3 Vocalic allomorphs

A few possessed free nouns show vocalic allomorphs. For instance, the free noun *mwa* 'house' changes to *mõ-* when possessed, as in *mõ-çö* [GO] 'your house'. In (7a-b) the question markers *ti* ? 'who' and *da* ? 'what ?' are the adnominal possessors of *mõ-*. While (7a) inquires about ownership, (7b) inquires about some part-of-whole relation.

(7) a. *Mõ-ti ?* - *Mõ-ãbaa-nu.* [GO]
house-whose? house-brother-POSS.1SG
'whose house is it?' – 'It's my brother's house.'
b. *Mõ-da ?* – *Mõ-hèlè.*
house-of.what? house-knife
'the sheath of what?' 'It's the knife's sheath/handle.'

The stem *mõ-* occurs in expressions denoting body-parts and other parts-of-whole such as *mõ-hovwo*, *mõ-ẽnõ* and *mõ-ima* in (8a) to (8c), or container-contained relations such as (8d); they are distinct from compounds like *mwa dili* 'mud house' or *mwa hovwo* 'pantry' (lit. house-food).

(8) a. *mõ-hovwo* [GO]
'stomach' (*hovwo* 'food')
b. *mõ-ẽnõ* [GO BO]
'uterus, placenta' (*ẽnõ* 'child')
c. *mõ-ima* [GO PA BO]
'bladder' (*ima* 'urine')
d. *mõ-yaai*
'fire-place' (*yaai* 'fire')

The free noun *nhã* 'feces' has the allomorph *nhõ-* in possessive relations:

(9) a. *ńhõ-je* [GO], *nhõõ-n* [PA BO] 'his feces'
b. *nhõ êgu* [PA] 'a person's feces'
c. *ńhõ chòvwa* [GO] 'the horse's dung'

Nhõ-n also serves as an interjection meaning 'serves him right !' *i nhõ-n !* [PA BO] (lit. it's his excrement !).

Other nouns show some vowel change /a/ > /e/ as in (10); the allomorphic possessive stem *wèè-* of the noun *wa* [GO], *wal* [PA] 'root' (from POc *wakaR) might result from an accreted linker, present in a prior stage of the language, such as *wa i* NP becoming *wèè-*.

(10)

Free form	possessed form
wa [GO], *wal* [PA BO] 'root'	*wèè-n* [PA] 'its roots'
	wèè bumi 'roots of the banyan'

In the case of *phwa* 'hole, mouth', the body-part is directly possessed, for instance as *phwa-n* [PA] 'his/her mouth', while the stem *phwè* occurs with compound nouns denoting body-parts like *phwè-bozo* 'navel' (lit. hole of umbilical chord) or nouns in close association.

(11)

phwa 'hole, opening'	*phwa-n* 'his/her mouth'
	phwè-bozo-je [GO] 'his navel'
	phwè-bwinõ-n [PA BO] 'his anus'
	phwè-pwaji=ã 'the hole of this crab' (where it hides)

In the case of *bwa* 'head', the body-part is also directly possessed as *bwa-n* [PA], while the stem *bwe-* occurs with inanimate possessors in other part-of-whole relations: for instance *bwe hogo* 'the summit of the mountain', which is thus distinguished from the locative prepositional use of *bwa* 'in *bwa hoogo* 'on the mountain'.

(12)

bwa 'head'	*bwe* 'top, summit'
bwa-ny [PA] 'my head'	*bwe hogo* 'mountain summit, ridge'
bwa chòvwa 'the horse's head'	*bwe kui* 'the upper part of the yam' (lit. top of yam)

2.2.4 Directly possessed nouns with accreted linkers

For a few other nouns, stem allomorphy is the probable result of an accreted possessive linker. For instance, the noun 'clothes', *hãbwòn* [PA], *hõbwòn* [PA BO], *hõb(w)ò* [GO], has allomorphic possessed stems suggesting an accreted possessive linker of the form *hõbwo(n) ni*-NP, becoming *hõbwoni-* or *hõbwoli*-NP.

(13)

[GO]	*hõb(w)òni-nu*	(or)	*hõb(w)ò**li**-nu*	'my clothes'
[PA BO]	*hõbwò**ni**-ny*	(or)	*hãbwò**li**-ny*	'my clothes'
Compare with [NEL] *hãbwan*	>		*hãbwa**li**-n*	'his clothes'.

A possible source of the linker is the POc possessive classifier *na-/no- denoting dominant possession, which has reflexes as *ne-*, *no-* or as *la-* or *le-* in various Oceanic languages. Another possible source is *n-i, a reconstructed genitive preposition with the personal article *i in PAN (Blust 1977, cited in Lichtenberk 1985a: 120). The change *n > l, which is "a common sporadic dissimilatory change" (Pawley 1973), is also attested in some extreme-north Kanak languages (Bril 2020: 203).

3 Possessee noun classes and their adnominal possessive constructions

The four main possessee noun classes analyzed in this section are structurally defined by their possessive construction. They are (i) directly possessed bound nouns (Section 3.1); (ii) free nouns possessed with classifiers (Section 3.2); (iii) directly possessed free nouns (Section 3.3); (iv) indirectly possessed free nouns (Section 3.4). These categories of possessive constructions are also those reconstructed in Proto-Oceanic (Pawley 1973; Ross 1998, 2001).

Due to language change, a few lexemes are assigned to different possessee classes among the three ZY lects; this is illustrated in (14) by two nouns that are indirect in [GO], but direct in the more conservative [PA BO] lects.

(14)

	Indirect		Direct	
a.	*alawe i we* [GO]	vs.	*alawe-m* [PA]	'good-bye to you !'
b.	*jige i je* [GO]	vs.	*jigèle-n* [PA], *jigali-n* [BO]	'his gun'

Similar language evolution among the extreme-north Kanak languages also accounts for the divergent construction of lexemes with the same meaning, which also shows that semantics is not the main driving factor. Thus, in Nêlêmwa, *da* 'blood' is indirectly possessed as *da i ye* 'his blood' (Bril 2002: 371), but it is directly possessed in the dialects of ZY, as *kuraa-çö* [GO] 'your blood', as *kuraa-m* 'your blood' in PA and BO, and as *uraa-m* 'your blood' in neighboring Nyelâyu.

3.1 Bound nouns and the construct suffix *–n*

Bound nouns are a subset of directly possessed nouns[15] that only belong to this class and are defined by their having an absolute suffix in their stand-alone form

15 Not all directly possessed nouns are bound nouns.

(i.e., without a possessor).[16] They are only found in the PA and BO lects and their construct~absolute suffix generally takes the form of a final consonant, often *–n* in various northern Kanak languages. This morpheme could be cognate with the non-personal genitive relator POc *ni (Ozanne-Rivierre 1991: 332; Ross 2001: 261). In GO, the loss of all final consonants, including the construct suffix, entailed the wholesale loss of bound nouns in the GO lect, which, as a consequence, only has free nouns as shown in (15a), to be compared with the PA, BO bound nouns:

(15) a. GO *hii* 'arm, hand' *kò* 'leg, foot'
b. PA, BO *hi(i)-n*[17] 'arm, hand', *kòò-n* 'leg, foot'

The construct suffix allows the class of bound nouns in PA and GO.
(i) to stand alone, in their absolute form,[18] see (15b), (17a),
(ii) to occur in compound nouns (16a), (16c).

Moreover, it does not show agreement in number, and thus has properties of absolute and construct morphemes (see Creissels 2017); it is glossed CST for convenience. This morpheme is replaced by a nominal possessor (16b), (16d), (17b) or by a pronominal possessive suffix if the possessor is human (16e), (17c).

In (16a)–(16c), the nouns for 'thumb' and 'index' with the absolute suffix *–n*, occur in compound nouns in which *thoomwã* or *êmwèn* are adjoined modifiers, not possessors, thus (16a) does not mean **the woman's finger, and (16c) does not mean **the man's finger; the direct possessive constructions are respectively shown in (16b)–(16d) where the possessor is directly postposed to the possessee.

(16) a. *hii-n* *thoomwã* [PA]
finger-CST woman
'the thumb' (lit. finger female)
b. *hi thoomwã* [PA GO] 'the woman's finger'
c. *hii-n* *êmwèn* [PA]
finger-CST man
'the index (lit. finger male)
d. *hi êmwèn* [PA] 'the man's finger'
e. *hii-ny* [PA] 'my finger'

16 Quoting Nichols (1988: 597), the construct suffix serves an 'absolutivizing', stand-alone function for bound nouns.

17 The noun *hi(i)-* refers to the upper limbs and their subparts, i.e., 'arm, hand, finger', but also animals' 'wing, tentacle'. In PA, BO, only context disambiguates whether *hi(i)-n* is the CST suffix or the 3rd singular possessive suffix.

18 Quoting Nichols (1988: 597), the construct suffix serves an 'absolutivizing', stand-alone function for bound nouns.

In (17a), the absolute suffix on *puxu-n* 'base, bottom' (referring to an inanimate entity) also stands in a paradigmatic opposition with a definite nominal possessor (17b) or with a personal possessive suffix (17c).

(17) a. *Jo na mwã puxu-n.* [PA]
2SG put SEQ bottom-CST
'Put it at the bottom.' (of a tree, house)

b. *Jo na mwã puxu mwa.* [PA]
2SG put SEQ bottom house
'Put it at the bottom of the house.'

c. *Puxu-ã* [PA]
base-POSS.1PL.INCL
'Our god' (lit. our base)

In PA and BO, there is only one construct suffix *-n* used for inanimate possessors and for non-specific, generic possessors, as in *hii-n mãni kòò-n* [BO] 'limbs' (lit. arms and legs), whereas in neighboring northern languages, like NEL and Nyelâyu, there are two construct suffixes. In NEL, they are *–n* (for non-specific human possessors) and *-t* (for non-specific and non-human possessors): e.g., *shi-n* 'hand' versus *shi-t* 'paw, wing, tentacle' (Bril 2013). In Nyelâyu, the construct suffixes are respectively *–k* (+ non-spec. human possessors) and *-t/-r* (+ non-spec. inanimate possessors): e.g., *ye-k* 'hand' versus *ye-r* 'sleeve' (Ozanne-Rivierre 1998: 36).[19]

Apart from some body parts, the construct suffix also occurs with some kinship terms of reference, such as *kêê-n mãni kibu-n* [PA] 'fathers and grandfathers',[20] which are mostly used in ceremonial speeches to refer to the generic notion of ancestors, not to any specific personal parenthood. Kinship terms are a split class further discussed in Section 4.

In PA and BO, the CST suffix is homonymous with the third-person singular possessive suffix *–n* of human or animate possessors (inanimate possessors do not have any pronominal indexation). A disambiguating feature is that in contrast with possessive pronominal suffixes, the CST suffix does not agree in number with the possessor; this is best seen in the context of dyadic kinship terms (see Examples (18) to (20)).

Dyadic kinship terms are marked by *è- … -n* with the construct suffix *–n* in PA and BO, while the suffix is lost in GO. These terms refer to a few types of dual or plural

19 The CST of bound nouns is also *–n* in Vamale (Rohleder 2021: 112), in Bwatoo (Rivierre and Erhart 2006), in Iaai and Drehu (Loyalty Islands, Moyse-Faurie 1983: 168; Ozanne-Rivierre 1991: 325). Further south in Paicî, impersonal genitive relators have the form rV (Ozanne-Rivierre 1991: 330–331), and the form *–rè* in Xârâcùù (Moyse-Faurie 1995).

20 The noun *kibu-n* "ancestors, grandfather" is used in ceremonial speeches and refers to male ascendants.

relationships such as parent and children, grandparents and grandchildren, maternal uncle and nephew/niece, parents-in-law and children-in-law, spouses.

(18) *Liè e-mõû-n mali-èò.* [PA]
ART.DU DYA-couple-CST DET.DU-DET.ANAPH
'Those two spouses.'

If used predicatively, these kinship terms have dual or plural subject pronouns depending on the number of persons, but the construct suffix *-n* remains unchanged, as in (19)–(20).

(19) *Lhi è-pòi-n.* [PA]
3DU DYA-child-CST
'They are father and son/daughter.' (or) 'they are mother and son/daughter.'

(20) *Lha è-peebu-n.* [PA]
3PL DYA-grandchild-CST
'They are grandfather and grandsons/grand-daughters.' (or) 'they are grandmother and grandsons/granddaughters.'

There are equivalent forms in other northern languages: *a-* … *-n* in Nyelâyu (Ozanne-Rivierre 1998), *a(m)-* … *-n* in NEL (Bril 2000: 84–85). The stem is usually the lower term of the dyad, i.e., *pòi(-n)* 'child' (see (19)), *peebu(-n)* 'grandchild' in ZY (see (20)), with some counterexamples such as *è-pööni-n* 'maternal uncle and nephew/niece' [PA], where the stem *pööni(-n)* 'maternal uncle, nephew, niece' is the higher term of the dyad.

The CST *–n* also occurs with some quantifier nouns like *jiu-n* 'the whole', allowing their absolute use in reference to inanimate entities as in (21a), compared with the plural personal possessive suffix *jiu-laa* in (21b) referring to the number of people in (21b) (see Section 9 for other cases).

(21) a. *phe jiu-n* [PA]
take whole-CST
'take the whole' (of some inanimate entities)
b. *whaya jiu-laa* ? [PA]
how whole-POSS.3PL
'what's their total number?' (of people)

The CST *–n* is found with the time noun *mwaji-n* [PA] 'time, delay'.

(22) *Pwali mwaji-n ?* [PA]
length time-CST
'how long ?'

It also occurs with one property-denoting noun, *mudo-n* [BO] 'decay',[21] it stands in a paradigmatic opposition with a directly postposed noun as in *mudo hõbwòn* [PA] 'old clothes' and *mudro mwa* [GO] 'a decayed house' (lit. the decay of the house). NEL has a similar construction with the bound noun *mobwa-t* 'decay', e.g., *mobwa mwa* 'a decayed house' (Bril [2000: 236]; see Ross [1998] for cases in other Oceanic languages).

The CST *–n* occurring on some modal nouns allowing their non-possessed, absolute use, is analyzed in Section 10.

3.2 Nouns possessed with classifiers

Possessive classifiers are frequent among Eastern Oceanic languages, which have between four and twenty of them (Lichtenberk 1983, 1985a: 105).[22] ZY and NEL are in the high range with respectively ten and thirteen classifiers, Iaai has twenty-three of them (Ozanne-Rivierre 1976), while Micronesian languages have up to twenty or more.

The reconstructed POc possessive classifier morphemes are: *ka-1 for food, *ka-2 for uncontrolled possession,[23] *na-/*no- for controlled possession, *ma- for drink (Pawley 1973: 153–169). Lichtenberk (1985a: 117) and Lynch (1997) consider *na-/*no- as a general classifier. Lynch (2001: 150) adds *ta- and/or *sa- as other candidates. Of these, only POc *ka-, *kani 'eat' is reflected as the starch food classifier, *cè* [GO], *caa-* [PA BO].

In ZY, the use of classifiers is restricted to nouns belonging to specific semantic domains (such as food and drink) and to nouns that cannot be possessed in any other way. A list is given in Table 3 for ZY and some other northern Kanak languages.

Possessive classifiers in ZY and NEL are morphemes with an obligatory direct possessor (generally marked by a pronominal suffix) and an adjoined possessed noun, with the pattern CL-POSS.SUFFIX POSSESSEE. The adjoined possessee is thus indirectly possessed, in relation to a nominal classifier which is itself directly possessed as shown in (23).

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21 It is a free noun *mudro* in [GO].

22 Lichtenberk (1985a: 105) "The number of possessive classifiers in an Oceanic language ranges from one to well over 20. However, the languages fall into two fairly distinct groups. One has a small number of classifiers – from one to four. The other has a large number of classifiers – upwards of 10, and usually more than 20".

23 Which Lichtenberk (1985a: 107) considers derived from *ka-1.

Table 3: Possessive classifiers in various northern Kanak languages.

	GO	PA BO	NEL	YAL	VAM	Bwatoo	POc
Protein food	*hò-*	*hò-* [PA], hu [BO]	*khoo-*	*wee-*	*xhua-*	*xhua-*	
Starch food	*cè-*	*caa-*	*caa-*	*yaa-*	*ya-*	*zha-*	**ka-*, **kani* 'eat'
Fruit, vegetable	*kûû-*	*kûû-*	*kûû-*	*ûû-*	*u-*	*xu-*	
Sugar-cane	*w(h)aza-*	*w(h)ala-*	*khora-*	*wha-*	*xhuta-*	*xhuta-*	
Drink	*kudò-*	*kidò-*	*kêê-*	*uduu-*	*udoo-*	*bwidoo-*	
Food for chewing[a]		*maa-*	*maa-*	*mhaa-*	*fwaa-*	*fwaa-*	
Seedlings for planting	*êê-*	*êê-*	*aa-*	*ûû-*			
Carried objects	*phò-*	*phò-*	*fha-*	*phaa-*			
Weapons	*pai-*	*phai-*	*aadaxi-*				
Pet animals, cattle		*pòi-*	*pwaxi-*	*nae-*			

YAL (Ozanne-Rivierre 1998), VAM (Rohleder 2021), Bwatoo (Rivierre and Erhart 2006). [a]This is specific to some types of eatable leaves and magnania tubers, *Pueraria lobata*.

(23) *Kidoo-ny* (a)[24] *we*. [PA]
CL:drink-POSS.1SG EP water
'My water.'

Classifiers in ZY and NEL check many of the properties of classifier systems (Franjieh 2012: 196): (i) they do not occur with all nouns; (ii) they are semantically assigned; (iii) they can be used anaphorically; (iv) they mark nouns as non-generic.

There is no general possessive classifier in ZY, nor in NEL or YAL, but there is one in Tîrî, *hêê-* 'belongings' (Osumi 1995: 144–156) and one in Iaai *ąni-n* (Ozanne-Rivierre 1976: 188). In many Kanak languages,[25] possessive classifiers denoting the "possession" of food types are extremely common, with a shared set of basic categories, such as starch food, proteins, fruit and leaves, drink, and sometimes more categories. Food types are assigned to a superordinate category such as starch, protein, and drink, and possessed by the corresponding possessive classifiers. These are sortal classifiers that express a 'genus'/kind, an inherent feature of the possessed entity, common to other members of that class, except for *w(h)aza-*[GO], *w(h)ala-* [PA BO] which is only used for *ê* 'sugar-cane', as in *whaza-nu ê* [GO] 'my sugar-cane' (for consumption). Yet, they do not constitute a gender system and do not index any female, male or thing/inanimate distinctions.[26]

24 This is specific to some types of eatable leaves and magnania tubers, *Pueraria lobata*.

25 Some languages, like Cèmuhî, have no possessive classifiers.

26 The situation is different from that of numeral classifiers, which distinguish humans from inanimates in NEL and ZY. In NEL, the numeral classifier for humans probably originates from the noun *ak* 'man, male' (Bril 2002, 2014: 176–178).

All other possessive classifiers are relational and denote a type of relation to the entity, such as carried objects, weapons, share of food brought for ceremonies, seedlings or cuttings for planting, catch at hunting, and domestic animals. Interestingly, animals and plants are classified not according to some inherent property, but according to relations entertained with them (see Table 3).

Sortal classifiers such as those used for food types tend to be rigidly assigned and are usually exclusive of each other, with a few exceptions like *nu* 'coconut', which can be categorized as a drink or as protein food according to the consumable part considered.

Relational classifiers are much more fluidly assigned since they categorize a noun according to a type of relation rather than to an inherent property, as pointed out by Lynch (1973: 76). Thus, yams as cuttings for farming are possessed with the relational classifier *êê-*, as a carried load with the relational classifier *phò-*, and as starch food with the sortal classifier *cè-*.

(24) *êê-nu kui* [GO] (lit. CL:plant-my yam) 'my cuttings of yam' (to plant)
phò-nu kui [GO] (lit. CL:load-my yam) 'my load of yam'
cè-nu kui [GO] (lit. CL:starch-my yam) 'my yam' (for consumption)

Relational classifiers vary according to conceivable relations, e.g., animals as catch at hunting and fishing, as food, as domestic or raised animals; plants are categorized as cuttings for cultivation, as shared goods in ceremonies, or as food.

Sortal and relational classifiers often originate from directly possessed nouns and are themselves directly possessed nouns,[27] called "possessed classifiers" by Aikhenvald (2000: 126); consider for instance:

(25) a. *kudòò-nu* *we* [GO]
CL:drink-POSS.1SG water
'my drinking-water'
b. *kûû-nu* *pò-mã* [GO]
CL:fruit-POSS.1SG fruit-mango
'my mango' (to eat)

In ZY, only *phò-* 'load' and *pòi-* 'child' are used independently as directly possessed nouns as in (26), (27); all other classifiers are only possessive classifiers.

(26) *Mõ* *vara* *pu* *phò-ã.* [GO]
1TRI.INCL each have load-POSS.1PL.INCL
'We three have each our duty/load.'

27 Lichtenberk argues that in most Oceanic languages, possessive classifiers originate from nouns, i.e., from [food-my] [taro] to [FOOD.POSS.CL-my taro] (Lichtenberk 2004: 357–358).

(27) *Gele=xa* *pòi-m ?* [PA]
there.is=INDEF.SPEC child-POSS.2SG
'Do (you) have children ?'

Phò- refers to any kind of transported thing, including hunted game or fished animals; its semantics also include the share of goods brought at ceremonies and it is used as a deontic noun referring to duties and obligations (see Section 10). Their classifier and nominal functions are distinguished by syntactic context; a classifier has a possessive suffix and is followed by the adjoined possessed noun, like *phò-la nõ* [BO] (lit. CL:load-their fish) 'their load/catch of fish', while as a possessed noun *phò* is directly followed by the possessor as in *phò kamyô* [GO] 'the load of the truck' which denotes a container-contained relation.

Possessive and numeral classifiers are most generally distinct in ZY and NEL, except for *phò-* 'load' in ZY and *fha-t* 'load' in NEL, which have both functions (Bril 2014: 178).

Classifiers in ZY can be used anaphorically if the possessed entity is referential and contextually retrievable, in such a case, the possessee does not need to be mentioned. For instance, the construction in (28) can be reduced to *êê-ny* [PA] 'my cuttings' (for planting) if the referent is immediately retrievable.

(28) *êê-ny* *kô-kumwala* [PA]
CL:plant-POSS.1SG cutting-sweet potato
'my cuttings of sweet potato'

In (29), the food type is known to be starch, but the specific referent is not mentioned since it is contextually referential. On the other hand, in the interrogative sentence in (30), the smell is identified as being that of meat or fish, triggering the classifier *hò-*, but the specific referent of the class is unknown and is precisely what needs to be identified.

(29) *Nu* *na* *cee-je* *mõnõ.* [GO]
1SG give CL:starch-POSS.3SG tomorrow
'I'll give his (starch) food tomorrow.'

(30) *Bo* *hò-îî* *da ?* [PA]
smell CL:protein-POSS.2DU what?
'What (protein) food of yours is it the smell of ?' (lit. the smell of your protein food is what?)

This stand-alone property of classifiers is permitted by their nominal properties, they are the head and the superordinate term, while the adjoined possessee is the subordinate term. Besides, in the case of relational classifiers, the semantics of the

classifier is the most important information to identify the use of the subordinate noun, as shown below with *ê* 'sugarcane'.

(31) a. *phò-nu ê* [GO] 'my load (of) sugarcane'
b. *êê-nu ê* [GO] 'my sugarcane cuttings' (for planting)

An additional argument is that in some cases like (32), the possessive classifier is predicative and has an argument *nhye hînu*, the classifier and the possessee do not form an inseparable complex NP.

(32) *Pòi-ny* *nhye* *hînu.* [PA]
CL:child-POSS.1SG this image
'This is my photo.' (i.e., as the author, not as my portrait)

Most classifiers are in common use in ZY, except for the classifier of weapons *p(h)ai-*, which mostly occurs in story-telling, in relation to traditional weapons like spears, arrows and bows, sling-shot stones, clubs, axes, e.g., *phai-ny bulaivi* [PA] 'my club'. The classifier can be used for modern weapons such as *jige* 'gun', e.g., *pai-nu jige* [GO] 'my gun', but *jige* is more commonly used either as an indirectly possessed noun, *jige i je* [GO] 'his gun', or as a directly possessed noun in [PA BO] with a different vowel, *jigèle-n* [PA], *jigali-n* [BO] 'his gun'.[28] Even *jitua* 'bow' is used as an indirectly possessed noun *jitua i je* [PA] 'his bow', as in NEL.

Thus, processes of language change trigger categorical changes. While the classifier for weapons *phai-* is falling into disuse, some classifier nouns undergo semantic extension like *pòi-* 'child',[29] which also expresses ownership of domesticated animals or cattle *pòi-ã vaaci* [PA] 'our cattle', and extends to ownership of created objects such as photos, as in (32).

On the other hand, the possessive classifiers for food types appear to be the most stable.

Classifiers in ZY and NEL are not repeaters (auto-classifiers), but Iaai (Ozanne-Rivierre 1976: 191) has various repeaters that extend to the possession of other entities categorized in the same class.[30] For instance, the Iaai noun *uma* 'house' is an auto-classifier in *umwe-k uma* 'my house' and a classifier for all types of houses, *umwe-k ito*, 'my round house'; the noun *nu* 'coconut tree', has the same twin function, *nuu-k nu* 'my coconut tree' and also occurs with all cultivated plants, e.g., *nuu-k koko* 'my yam plant' (lit. CL-my yam); similarly for *hu* 'boat', *huu-k hu* 'my boat', and for all types of boats *huu-k galu* 'my row-boat'.

28 Compare with NEL *jixe-t* 'gun', *jixela-m* 'your gun'; YAL *jixe-r* 'gun', *jixela-m* 'your gun'.

29 As a kinship term, *pòi* 'child' is directly possessed as *pòi-ny* 'my child', and is not used as a repeater (**pòi-ny pòi* 'my child'), see Section 3.2.

30 Dotte (2017: 353, 358) discusses classifier loss, extension of the general classifier, and extension of the classifier *taben* for seats to transportation mode in present-day Iaai.

3.3 Directly possessed free nouns

In contrast with bound nouns, free nouns can be used in their base form without any CST suffix and without possessive marking as in (33a). These nouns are directly possessed and are marked by possessives suffixes (33b) or by directly postposed possessor nouns; consider for instance: *yaaza* [GO] 'name', *yaaza-nu* [GO] 'my name', *yaaza ẽnõ* [GO] 'the child's name'.

(33) a. *Nõõle wõ !* [GO] vs. b. *Nõõle wõjo*[31]*-nu !* [GO]
look.TR boat look.TR boat-POSS.1SG
'Look at the boat !' 'Look at my boat !'

3.3.1 Directly possessed free nouns: an overview of class membership

Nouns belonging to the class of directly possessed free nouns in ZY only belong to this class and do not show alternate constructions. The following nouns are just indicative of some semantic domains and are not an exhaustive list of the lexemes of that class.

(i) Culturally basic possessed entities[32] such as *mwa* 'house', *wõ* 'boat', etc. *ke* 'basket' is possessed as *kee-nu* [GO], *kee-ny* [PA BO] 'my basket'.
(ii) Most body parts, inner organs, body fluids like *kutra* [GO], *kura* [PA BO] 'blood',
(iii) Most kinship terms of reference.
Various other possessible nouns denote:
(iv) features or relations, like *yaaza* [GO], *yaara-* [PA] 'name', *kãgu* 'spirit', *nõbu* 'rule, law', *mõã* [GO] 'food left-overs'; e.g., *mõã-nu* [GO] 'my left-overs'.
(v) properties and qualities: *bo* 'smell', *chiǹõ* 'size', *phwaxa* 'length, height, duration', *kòlò* 'side, flank', *mudro* [GO] 'decay'; *mòlò* [PA] 'life'
(vi) time nouns: *yevwa* 'time', *bwò* [GO] 'date'; *wara* [GO], *whara* [PA] 'time, moment for': *whara-ny* [PA] 'my time'
(vii) some spatial nouns, *gòò* 'middle, part of', *nõ* 'interior, inside', *pira* 'beneath', *bala* [PA] 'extremity, limit'
(viii) almost all quantifiers or measure words meaning 'a piece, a part of' some non-count or count nouns, like *mhava* 'piece of', *ãbaa* 'some, others', *kôgòò* [GO] 'surplus';
(ix) various modal nouns, see Section 10.
(x) greetings: *alawe-m* [PA] 'good-bye to you ! (lit. (taking) your leave)

Some of these lexical domains are now briefly discussed.

31 Stem allomorphies are presented in Section 2.2.
32 A term borrowed from Nichols (1988: 572).

3.3.2 Directly possessed body-parts

Nouns denoting body parts, limbs and inner organs are most generally directly possessed as in (34) and (35)).

(34) *hii-je bwa mhwã* [GO] 'his right hand' (lit. hand-his on right)
hii-n [PA] '(his) hand, arm'; *gu hii-n* [PA] 'his right hand' (or:) 'right hand'
hi pwaji=ã [PA] 'this crab's claw (lit. claw crab=this)
bozo-nu [GO] 'my umbilical cord'
cii-ny [PA BO] 'my skin'
bwa-ny [PA] 'my head'

Some of these nouns are directly possessed compound nouns denoting sub-parts of body parts as in (35a)–(35b), where the second noun specifies a type of 'hair'.

(35) a. *pu-bwaa-je* [GO] 'his/her hair' (lit. hair-head-his/her)
b. *pu-phwa-n* [PA] 'his beard/moustache' (lit. hair-mouth-his/her)
c. *phwè-bozo-je* [GO] 'his navel' (lit. hole-umbilical.cord-his/her)
d. *ci-phãgoo-je* [GO] 'his/her skin' (lit. skin-body-her/his)

On the other hand, a few metaphorical body-part terms are indirectly possessed with a possessive linker *ni* or *ne* which is homophonous with a locative preposition (see Section 3.4), as in (36), but note that the body-part *hii-* is directly possessed.

(36) a. *pò-mugo* *ni* *hii-n* [PA], b. *pò-mugo* *ni* *hii-ny* [PA]
fruit-banana LNK arm-CST fruit-banana LNK arm-POSS.1SG
'biceps' 'my biceps'

Interestingly, the existence of directly versus indirectly possessed body-part terms is not linked to a semantic contrast between permanent versus removable parts like hair, or temporary body sores, swelling, bumps, as in Paamese (Vanuatu, Crowley 1996: 395), rather, it is due to a structural distinction between dedicated and metaphorical body-part terms, the former being directly possessed and the most numerous.

3.3.3 Directly possessed parts-of-wholes

Directly possessed nouns also express parts-of-whole (meronymic) relations such as (37), as well as emission (as of heat, light) by a source as in (38), or direct production (as of dust or fire) by a source (39).

(37) *kãgu mwa* [GO] 'the spirit of the house'

(38) a. *jińu yaai* [GO PA] 'the heat of the fire' (*jińu* 'warmth', *yaai* 'fire')
b. *jińu a* [GO] 'the heat of the sun' (*a* 'sun')

(39) a. *pubu dili* [GO PA BO] 'the dust of the soil' (*pubu* 'dust of', *dili* 'soil')
b. *pubu yaai* [BO] 'the smoke of the fire' (*pubu* 'smoke', *yaai* 'fire')

On the other hand, indirectly possessed nouns denoting parts-of-whole relations are marked by prepositions or linkers, and are presented in Section 3.4 below. The dichotomous constructions of parts-of-whole show that they are primarily selected by possessee noun classes, not by semantic relations.

3.4 Indirect, prepositionally possessed free nouns

The class of indirectly possessed free nouns is marked by prepositions, *i* (possibly from POc *qi, Ross 2001) for animate possessors as in (40), by *(x)o, (w)o* for inanimate possessors as in (41) and for indefinite/collective possessors. Similar constructions occur in other Oceanic languages (see Lichtenberk et al. 2011).

(40) *Gaa vhaa i êgu.* [GO]
sound speech PREP people
'The sound of people's talk.'

(41) *me-piça (x)o/(w)o bwaa-je* [GO]
NMLZ-hard PREP head-POSS.3SG
'his stubbornness' (lit. the toughness of his head)

The greatest number of loan words, if possessible, belong to the class of indirectly possessed nouns, independently of their lexical meaning; most of them denote artifacts and goods (i.e., *loto* 'car', *burei* 'bouteille', *mwani* 'money', etc.). Some loan nouns for food and drink are possessed with the adequate classifier (*kafe* 'coffee', *pomitee* 'potato', *phwalawa* 'bread', *aari* 'rice', etc.).

Another type of indirect possessive construction is marked by the linkers *ne ~ ni* and occurs with nouns mostly denoting parts-of-wholes with inanimate possessors. In ZY as in various other extreme-north Kanak languages, the possessive linkers are homophonous with locative prepositions *ni ~ ne* 'in, on'. This construction has been mentioned for some metaphorical body parts (see Section 3.3.2) such as 'calf' and 'biceps' literally meaning 'the banana of/on his leg/arm' (42) and indirectly marked with the possessive linkers *ne ~ ni*.[33]

33 The possessive linker *ne* does not host possessive suffixes in any of the ZY lects, while it does in Cèmuhî and Nemi.

(42) a. *pò-mugo* *ni* *kòò-ny* [PA], *pò-mugo ne kòò-ny* [BO]
fruit-banana LNK leg-POSS.1SG
'my calf'

b. *wa-aazo* *ni* *kòò-n* [PA]
tendon-chief LNK leg-POSS.3SG
'his Achilles' tendon'

These possessive linkers *ne* ~ *ni* are further discussed in relation to alternate parts-of-wholes constructions in Section 5.3.

These linkers could reflect the POc associative linker *ni (Lichtenberk 1985a; Lynch 1996), or a former genitive *NV linker. Cognate forms are attested in various New Caledonian languages. Compare 'the bark of the tree' in three northern languages in (43): the nasal linker is reflected as *-n* in Nemi (NEM); in NEL, it is integrated in the head noun and marked by regressive nasalization of its final vowel; it is dropped in GO and PA, and the part-of-whole relation is directly marked.

(43) NEM *cii-n ceec* 'the bark of the tree' (Ozanne-Rivierre 1991: 332–333)
NEL *cîî ciic* 'the bark of the tree'
(the unpossessed form with the absolute suffix is *cii-t* 'skin, bark')
GO PA *ci cee* 'the bark of the tree'
(the unpossessed form with the absolute suffix is *cii-n* [PA] 'skin, bark')

Cognate possessive linkers are *ne* in Caac, *la* in Nyelâyu (44a), *le* in Nemi (44b), they are homophonous with locative prepositions;[34] some of these morphemes host possessive suffixes.

(44) a. NYE *ye-la* *habwan*
sleeve-POSS.LNK clothes
'the sleeve of the clothes'
the unpossessed form with the absolute suffix is *ye-r* (sleeve-CST) 'sleeve'
(Ozanne-Rivierre 1998: 36)

b. NEM *cee le gi*
wood LNK axe
'the handle of the axe'
(Ozanne-Rivierre 1991: 331)

In Cèmuhî (Rivierre 1980: 152–157), various possessive linkers, *nè-*, *ko-*, *hê-*,[35] indicating inclusion and parts-of-whole relationship, host possessive suffixes. CÈM *nè-*

34 Prepositions hosting possessive suffixes and having locative, benefactive, possessive functions are common in northern Kanak languages.

35 The possessive linker *hê-* (probably originating from a locative preposition *hê-* 'in' with high tone) marks parts-of-whole or body-part relationship, as in *amo hê-n* 'its post' (of a house) (Ozanne-Rivierre 1991: 328).

only marks relationships between inanimate nouns, as in ZY; Cèmuhî and Nemi *ko ~ xo* 'on' mark indirect objects and possession, as in (45). The indirect possessive linkers *(x)o, (w)o* in ZY have the same origin, and similar functions, but do not host possessive suffixes and are restricted to inanimate possessors (see (41)).

(45) a. CÈM *cinu* *ko-n*
illness LNK-POSS.3SG
'his illness' (Rivierre 1980)

b. NEM *dama* *xo-ng* ; *wâ* *xo* *hiu-ng*
chief LNK-POSS.1SG vein LNK hand-POSS.1SG
'my chief' 'the vein on my hand'
(Ozanne-Rivierre 1991)

4 Kinship terms: split possessive constructions

The semantic category of kinship terms is generally considered criterial for the notion of inalienable possession; yet in many Oceanic languages as well as cross-linguistically, kinship terms and parts-of-whole terms may be split and marked differently in a given language. Nichols and Bickel (2005) and Chappell and McGregor (1996: 8–9) discuss cases of languages where only subsets of kin terms, body part and spatial terms are treated as inalienable, which is also true of ZY.

In ZY, kinship terms are split over the three possessee classes: some are directly possessed bound nouns, some are directly possessed free nouns, and some are indirectly possessed free nouns. The conceptual divide falls between address and reference terms; reference terms are, with a few exceptions, directly possessed, like 'father', 'mother', 'child', 'siblings', 'spouse', 'nephews and nieces', 'maternal uncle', 'great-grandfather', 'grandchildren', 'brother in law', 'son-in-law', 'daughter-in-law'. Address terms that are normally non-possessed may be used as reference terms, they are then indirectly possessed, as in (46b).

(46) a. *õã-nu* [GO], *õõ-ny* [PA] 'my mother, my maternal aunt'
b. *nyãnyã i je* [GO], *nyãnyã i ye* [PA] 'his mum, his maternal auntie'

In the case of 'mother', the address term *nyãnyã* may be used as a hypocoristic reference term in relation to a child (i.e., 'where's his mum?' rather than 'where's his mother ?').

Among former terms of address fully conventionalized as reference terms, some are directly possessed like *caaça* 'dad, father' (47a), while others are indirectly possessed like *wha* 'grandpa, grandfather' (48a)–(48b). The respective reference terms are directly possessed like *kêê-nu* 'my father' and *kibu-nu* [GO] 'my

grandfather, ancestor', but their use is restricted to ceremonial speeches when kin relations are reminisced (49).

(47) a. *caaça-nu* [GO] 'my father, my dad'
b. *caaça ẽnõ=ã* 'this child's father/dad' (lit. father child=this)

(48) a. *wha i nu* [GO] 'my grandpa/grandfather'
b. *wha i ẽnõ=ã* 'this child's grandpa/grandfather'

(49) *Gele la kêê-laa mãni kibu-laa.*
be.LOC ART.PL father-POSS.3PL and grandfather-POSS.3PL
'Their fathers and grandfathers were there.'

Similarly, *gèè* 'grandma, grandmother', an address term that has become the new reference term,[36] is indirectly possessed as *gèè i nu* 'my grandma ~ my grandmother'; on the other hand, the reference term for 'grandchild' is directly possessed, *niila-nu* [GO] 'my grandchild(ren)', showing that distinctions are not in terms of the generation gap, nor in terms of distance to *ego*. The same is true of NEL (Bril 2002: 367); Ozanne-Rivierre (1991: 323) discusses similar facts in other Kanak languages.

A possible functional explanation is that an address term is generally not possessed unless it is used or conventionalized as a reference term; it then joins one of the two noun classes, directly or indirectly possessed. The selected class might correlate with the notion of frequency asymmetry (Greenberg 1966), further discussed by Haspelmath (2017: 203), according to which when a split in grammatical form occurs " the less frequent pattern tends to be overtly coded (or coded with more coding material), while the more frequent pattern tends to be zero-coded (or coded with less coding material)". Frequency might thus explain why *caaça* 'dad, father' in ZY is directly possessed, while *wha* 'grandpa/grandfather' is indirectly possessed (i.e., with more coding). The indirectly possessed *nyãnyã i je* 'his mum' in (47b) does not contradict the frequency asymmetry, since it is in competition with the commonly used reference term *õã-* 'mother', and since the two words retain the coding split. On the other hand, in the case of 'father', the address term *caaça* tends to replace the reference term *kêê* which is restricted to ceremonial contexts, and has taken over its usage and its direct coding (see Example (49)). Thus, the split possessive constructions of kinship term in ZY is not based on the semantics of (in)alienability, but on structural properties, distinguishing address terms from reference terms.

There are additional reasons for such splits, some are diachronic, and others are morphosyntactic. For instance, the term referring to the mother's clan is an

36 In other languages, there are two words for grandmother: in Nyelâyu *gèè* is the address term (Ozanne-Rivierre 1998: 172), the reference term is *wa thaamwa* (lit. grandparent woman).

indirectly possessed deverbal noun (50), while other reference kinship terms on the mother's side are direct, such as the maternal uncle *èvwööni-nu* [GO], *pööni-ny* [PA] 'my maternal uncle'.[37]

(50) *a-çabò* *i* *hã*
AGT-NMLZ-raise PREP 1PL.INCL
'our maternal kins'

A possible explanation is that the noun *a-çabò* is derived from an intransitive verb,[38] and is indirectly possessed (see Section 7). This is a case where morphosyntax drives possessee class assignment.

To summarize, the split observed with kinship terms in ZY mostly correlates with their being either reference or address terms, and with processes of possessee class change, not with the semantics of (in)alienable possession. In Ajië (Houailou, south New Caledonia, La Fontinelle 1972; Lichtenberk 1985a: 125), kinship terms are also split between those that are directly and indirectly marked 'without any clear semantic reason' in Lichtenberk's view; for instance 'mother' is directly possessed, but 'father' is indirectly possessed; 'child' is directly possessed, but 'son' is indirectly possessed.

In Fijian (Geraghty 1983; Pawley and Sayaba 1990) also note some arbitrary splits of kinship terms over two constructions with no clear semantic grounds, which Pawley and Sayaba (1990: 158) explain by the fact that some of these "kinship terms came to be used fairly recently" and were originally names for parts-of-whole.

5 Alternate direct, semi-direct and indirect constructions of parts-of-whole relations

It has been argued that possessee class membership is usually unique in ZY and that alternate possessive constructions are mostly restricted to parts-of-whole (meronymic) relations, to which we now turn. A few nouns occurring in constructions expressing parts-of-whole have (i) direct or semi-direct (with the suffix *–a*) constructions, (ii) semi-direct and classifier constructions, or (iii) semi-direct and indirect constructions with the possessive linkers *ne* ~ *ni* ~ *na*. These alternate constructions depend on the range of conceptual and semantic relations stored in the

37 The paternal uncle (father's brother) is called 'father'.

38 The verb *cabo* means 'rise' (including the sun), 'emerge, appear'.

lexicon for a given lexeme and express different types of relationships and meanings. Importantly, these nouns do not pertain to a distinct possessee noun class from those already presented.

These constructions generally reflect former Proto-Oceanic possessive linkers used for meronymic relations; the semi-direct construction is marked by the suffix *–a*, a now accreted possessive linker that is possibly cognate with POc *ka2, a marker of uncontrolled, subordinate possessive relation (Pawley 1973: 162). For instance, Manam has a reflex *-ʔa* for inalienable constructions in which the possessor is a part or a source of the possessee (Lichtenberk 1985b: 295).

5.1 Alternate direct and semi-direct parts-of-whole relations

Some directly possessed nouns have an alternate semi-direct construction denoting some parts-of-whole or some property of the possessee; they generally express relations of a more transient, more contingent nature than the direct possessive constructions, and they are marked by the suffix *–a* (with the possible insertion of a glide *-(w)* between adjacent vowels).

For instance, *mõlò* 'life' is directly possessed as *mõlò-nu* [GO] 'my existence, my life', while the constructions with *-(w)a* expresses a distinct type of relation and has a slightly different meaning, as *mõlò-(w)a* 'way of life' in (51).

(51) *Mõlò-(w)a* *kêê-ã* *mãni* *kibu-ã.* [GO]
existence-LNK[39] father-POSS.1PL.INCL and grand-father-POSS.1PL.INCL
'The way-of-life of our fathers and grand-fathers.'

Similarly the noun *dou* 'envelope, moult' is directly possessed as a body-part in *dou-n* [PA] 'his (bodily) envelope', and in *dou pwaji* 'the crab's discarded carapace'; but it is marked by the suffix *-a* in *dou-(w)a hêgi* [dowa hê^{ŋ}gi] [GO PA] 'the casing of the valuables' referring to a man-made case. Also consider the meronymic relations in (52).

(52) a. *dra-(w)a yaai* [GO] 'the ashes of the fire' (*dra* 'ash, soot', *yaai* 'fire')
b. *dra-(w)a dröö* [GO] 'the soot of the pot' (*dröö* 'pot')
c. *nhe-(w)a-wõ*[40] [GO] 'the sail of the boat' (*nhe* 'a sail', *wõ* 'boat')

In NEL, the suffix *–a* is only used with non-human modifiers (Bril 2013), but Zuanga-Yuanga has no such restriction; the coding split with parts-of-whole is not conditioned by the possessor's animacy, but by the kind of relation at hand.

39 This possessive "linker" indicates a non-permanent relation between possessee and possessor.
40 Compare with the compound *wony nhe* 'sail-boat'.

5.2 Alternate semi-direct and classifier constructions for parts-of-whole relations

A few nouns have an alternate semi-direct construction or an indirect classifier construction. One such case is *hênu* [GO], *hînu* [PA] 'image, shadow' (POc *qanunu 'shadow, reflection, soul'); its semi-direct construction with a possessive pronominal suffix or a nominal possessor, as in (53a) to (53d), often expresses subordinate, transient parts-of-whole relations or temporary images, reflections, shadows, shades; in (53d) the eye shade is temporary protection for the eye, distinct from the directly possessed body part *ci-mee-nu* [GO] (skin-eye-POSS.1SG) 'my eye-lid'.

(53) a. *Nu nõõle hênu-a-je nani vea.* [GO]
1SG see.TR image-LNK-POSS.3SG LOC glass
'I saw his reflection in the window-pane.'

b. *hînu-a-ny* [PA] ; *hênu-a-nu* [GO]
image-LNK-POSS.1SG image-LNK-POSS.1SG
'my image, reflection, shadow, photo' (representing me)

c. *hînu-a cee* [PA]
shadow-LNK tree
'the shadow/shade of the tree'

d. *hênu-a me* [GO]
shade-LNK eye
'eye shade' (usually made from a leaf) (*me* 'eye')

On the other hand, *hênu* is possessed with the classifier noun *pòi-* which denotes some creation, an image taken by the photographer in (54).

(54) *Pòi-ny nhye hînu.* [PA]
CL:child-POSS.1SG this image
'This is my photo.' (shot by me)

These distinctions are common in Oceanic languages; in Motu (Lichtenberk 1985a: 109), a similar distinction is expressed with a classifier when some form of authorship is implied, and by direct possession otherwise.

(55) a. *Morea e-na sivarai.*
Morea CL-POSS.3SG story
'Morea's story.' (that he told)

b. *Morea sivarai-na.*
Morea story-POSS.3SG
'Morea's story.' (about him)

5.3 Alternate semi-direct and indirect constructions of parts-of-wholes

A few nouns, mostly expressing parts-of-wholes, have alternate semi-direct and indirect possessive constructions with the possessive linkers *ne* ~ *ni* (discussed in Section 3.4), expressing different relations and semantics.

Consider for instance the noun *gu* [GO], *gun* [PA, BO] 'noise, din'; its indirect construction as *gu ne chiò* [GO] 'the noise of the bucket' (*chiò* 'bucket') refers to a noise caused by some external agent and involving the head noun. On the other hand, a noise inherently emanating from an entity and considered as a part of it, is marked with *–a* as in *gun-a loto* [GO BO] 'the noise of the car'; it can also be directly possessed as in (56), but the form *gunè-n* might result from the accreted possessive linker *ne* hosting a possessive suffix as in other Kanak languages:

(56) *Novwö* *gunè-n*,[41] *e* *gun* *whã* *nhyô*. [PA]
THEM sound-POSS.3SG 3SG sound be.like thunder
'As for its sound, it sounds like the thunder.'

Accreted linkers are the source of stem allomorphies, some of which were discussed in Section 2.2.4; they are possible causes for changes of possessive constructions and possessee classes.

Metaphorical body-parts were mentioned to be indirectly marked by a linker *ne* ~ *ni* in Section 3.4. Another case is that of *wa* [GO], *wal* [PA] 'liana, rope, band', whose semantics extends metaphorically to body-parts meaning 'tendon, artery, vein, muscle', indirectly marked by *ne* ~ *ni* as in (57a)–(57b). This stands in contrast with directly possessed compound nouns denoting artefacts or body-ornaments, in which *wa(l)* has its basic meaning 'rope, band' as in (58). Metaphorical relations are thus marked as more distant, while non-metaphorical meanings occur in directly possessed compound nouns.

(57) a. *wa* *ne* *hii-nu* [GO]
rope LNK arm-POSS.1SG
'my arm muscles'

b. *wa* *ni* *bwèèdrò-nu* [GO]
rope LNK forehead-POSS.1SG
'the vein(s) on my forehead'

(58) a. *wa-bwèèdrò-li* [GO]
band-forehead-POSS.3DU
'their head-bands'

41 Thus from a hypothesized *#gu ne-n* to the PA form *gunè-n* 'his/her/its noise'.

b. *wa-hii-je* [GO]
band-arm-POSS.3SG
'his arm's bracelet'

Similar alternate constructions occur in NEL, between indirectly marked metaphorical body parts in (59a) and the semi-direct possession of body ornaments in (59b).

(59) a. *wat na bwee-ny* [NEL]
rope LOC top-POSS.1SG
'my veins'
(Bril 2000: 350)
b. *war-a bwaa-hli* [NEL]
band-LNK head-POSS.3DU
'their head-bands'
(Bril 2013: 79)

On the other hand, it is directly possessed when used with its basic sense of 'rope, liana':

(60) [GO] *wa ; wazi-nu*[42] 'my rope, my liana'
[PA BO] *wal ; wali-ny* 'my rope, my liana'
[NEL] *wat ; wale-ny* 'my belt'

To summarize, these alternate direct, semi-direct and indirect constructions and their semantics only occur in parts-of-whole relations and are restricted to a few nouns. They show some correlation between their formal coding and the semantic feature of the relations at hand. The semi-direct constructions with the accreted suffix *-a* tend to express contingent, transient part-of-whole relations, while the indirect constructions with the prepositional linkers *ne* ~ *ni* express extraneous and metaphorical part-of-whole relations.

6 Constructions of non-possessible nouns

Non-possessible nouns are of interest inasmuch as they trigger specific constructions. They usually pertain to the natural world (stars, sea, etc.), to natural phenomena

42 POc *waRoc 'rope, vein, tendon' is reflected by *wa**l*** [PA, BO], *wa* [GO] (no final consonant) and *wa**t*** [NEL]. POc final *-s, *-c * is reflected by /-l/ [PA, BO], and by /-t/ [NEL] which only has final stops. In the possessed form, the consonant is in medial position, and is then reflected as -l- [PA, BO], -z- [ð] [GO], -l- or -r- [NEL] (Bril 2020: 209).

(thunder, storm, etc.), and are also superordinate nouns denoting materials such as *dili* 'soil', *cee* 'wood', *karòò* 'coral', etc. They also include generic human nouns like *êgu* 'person' or nouns denoting human categories distinguished by age group, like *ẽnõ* 'child (by age)', or by gender like *êmwê(n)* 'male, man', and specifying some attributes. These nouns usually occur as compound nouns whose possession requires stem repetition.

For instance, *dili* 'soil' is non-possessible, only compound nouns like *mwa dili* 'mud house' can be possessed by repeating the stem as in *mwa dili mõ-nu* (lit. house-mud house-my) [GO] 'my mud house' (**mwa-dili-nu is ungrammatical, so is **mõ-nu dili).[43] The head noun must be repeated, possibly under distinct stems as in the case of *mwa* 'house' which is possessed with the stem *mõ-* (see Section 2.2.3).

Similarly, since *cee* 'tree, wood' is non-possessible, compound nouns like *wõ-cee* 'wooden boat' can only be possessed by repeating the head noun (***wõ-cee-nu* is ungrammatical), as in *wõ-cee wõjo-nu* [GO] (lit. boat-wood boat-my) 'my wooden boat', here again with the allomorphic possessed stem *wõjo-* (see Section 2.2.2). The noun *phò-cee* 'load of wood' must be possessed with the classifier *phò-* 'load' as in (61), (***phò-cee-nu* is ungrammatical).

(61) *phò-nu* *phò-cee* [GO]
CL:load-POSS.1SG load-wood
'my bundle/load of wood'

By contrast, compound nouns in which the modifier is possessible, like the directly possessed noun *mõã* 'left-overs', allow a direct construction as *ke-mõã-nu* [GO] (lit. basket-left.overs-my) 'my basket of left-overs'.

In ZY, the constructions with repeated stems have a different word order from that of possessive classifier constructions; in repeated stem constructions, the compound noun is followed by the possessed noun stem as in *wõ-cee wõjo-nu* 'my wooden boat' (compound-N + N-POSSESSOR), while classifier constructions display the reverse order as CL-POSS.SUF + POSSESSEE, as in (61). By contrast, they have the same order in NEL, as shown by the repeated stem construction in (62); these constructions might potentially give rise to new classifiers.

(62) *Waja-ny* *wany-hnap*.[44] [NEL]
boat-POSS.1SG boat-sail
'My sail-boat.'
(Bril 2013: 72)

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43 Compare with the construction in NEL: *mwa-n mwa doo* (lit. house-POSS.3SG house mud) 'his mud house' (Bril 2002: 368).

44 The NEL compound *wany-hnap* cannot be directly possessed, but requires the repetition of 'boat' under its possessed form.

Discussing classifiers in Mirityabin (Brinken subgroup, Australia), and repeated forms such as *yeli-melten yeli yikin* 'my digging-stick (lit. stick+digging-stick stick+my), Corbett (1991: 140) considers such constructions as a possible incipient system of agreement between the classifier and the possessed noun, and a possible incipient gender/agreement system if the form is repeated, for instance onto a possessive adjective or an adjective: "agreement is the means by which gender is realized and it shows great variety, both in the types of element which can carry a gender agreement marker and in the formal means employed." (Corbett 1991: 143). But in NEL and ZY, these repeated forms are much too sporadic to warrant considering them as an incipient gender agreement system; they simply allow the adnominal possessive construction of non-possessible nouns and are explained by morpho-syntactic reasons.

7 Nominalizations and their adnominal possessive constructions

Deverbal nouns are yet another domain featuring adnominal possessive constructions, in which the participants are encoded as possessors in similar ways as with underived nouns. In ZY, the common nominalizers are:

– *baa-* deriving instruments: *baa-kido* [PA] (lit. INSTR.NMLZ-drink) 'bowl, glass'
– *me-* for action nominalization
– *mhenõõ-* for locative nominalization
– *a-* for actor/agent nominalization: *a-vhaa* (lit. AGT.NMLZ-speak) 'chatter-box'.

Instrument nominalizations are derived by *baa-*, as in (63a), in which the derived noun *baa-pe-nhuã* has a direct possessor suffix *–õ* 'our' referring to the reciprocal participants. Compare with the verbal construction with coreferential subject and object pronouns in (63b).

(63) a. *Mõ naa mwã nhye khõbwe baa-pe-nhuã-õ.* [GO]
1TRI.INCL give SEQ this say INSTR.NMLZ-REC-release-POSS.1TRI.INCL
'We then give this to serve as our way of taking leave from each other.'

b. *Mõ pe-nhuã-iõ.* [GO]
1TRI.INCL REC-release-1TRI.INCL
'We release each other.' (lit. we release us)

Action nominalizations with *me-* and a derived transitive verb are generally impersonal constructions with an unexpressed agent; the patient of the derived

noun is the direct possessive modifier as in (64a), compared with the verbal construction in (64b).

(64) a. *Whaya me-cimwî pwaji ?* [PA]
how NMLZ-catch crab
'How are crabs caught ?' (lit. how is the catching of crab ?)
b. *Lha cimwî pwaji.* [PA]
3PL catch crab
'They catch (the) crabs.'

A similar construction is shown in (65) in Loniu (Admiralties) "where a nominalized transitive verb is directly possessed by its absolutive argument and may also be indirectly possessed by its ergative argument" (Palmer 2008: 136).

(65) *[ta-ya pʷɛlɛyah] a yo.*
[catch-NMLZ parrotfish LOC I
'my [area for] catching parrotfish' (lit. 'parrotfish's catching of mine')
(Hamel 1994:79, cited in Palmer 2008: 136).

On the other hand, in ZY, deverbal nouns derived from intransitive verbs or from verbs detransitivized by the suffixes *vwo* [GO] ~ *vwu* [PA][45] take the actor as their possessive modifier. Interestingly, the actor modifier is indirect (*i çö*) in GO (66), but it is directly marked by a possessive suffix *-n* in PA (67), a probable consequence of the fact that the detransitivizer *vwu* has preserved nominal properties and a possessive suffix, which are lost in GO, thus favoring the indirect possessor marking in GO.

(66) *Kavwö nu trõne-kaamweni me-nee-vwo i çö.* [GO]
NEG 1SG hear-understand NMLZ-do-DETR PREP 2SG
'I do not understand your way of doing (things)'.

(67) *Yala xa poo xa whaya me-nee-vwuu-n.* [PA]
name DET thing also manner NMLZ-do-DETR-POSS.3SG
'It's the name of something and also of his manner of doing (things).'

The possessive constructions of deverbal nouns correlate with diathetic alternations promoting and encoding either the actor (of intransitive verbs) or the patient (of transitive verbs) as the prime possessor. Similar constructions occur in Nêlêmwa[46] (Bril 2002: 375–377, 2013: 83–84).

45 These detransitivizing morphemes probably originate from the noun *po, pu* 'thing'.

46 In NEL, the NMLZ prefixes are *baa-* instrument, *u-* action NMLZ, *hna-* locative NMLZ, *aa-* actor/agent NMLZ.

Nominalized stative and intransitive verbs occur (i) with direct possessive constructions (68a)–(68b), (ii) with the semi-direct *–a* marker (69)–(71), or (iii) with indirect possessors (72)–(73). In (68a), the possessive suffix denoting the experiencer is directly suffixed, in (68b) the adnominal possessor *mõ-xabu* is also direct.

(68) a. *Me-khinu-je* [GO]
NMLZ-sick-POSS.3SG
'his suffering/disease'

b. *Haze me-trabwa mõ-xabu.* [GO]
different NMLZ-sit house-sacred
'The shape of the temple is different/strange.'

On the other hand, temporary properties of nouns derived from stative verbs may be marked by the semi-direct *–a* construction of uncontrolled possession, denoting for instance some container-contained relation as in (69)–(70) or some transient property as in (71).

(69) *Mhenõõ-yuu-(w)a kãgu êgu mãla mã.* [GO]
NMLZ-stay-LNK spirit person these.PL dead
'The dwelling of the spirit of the dead people.'

(70) *Me-kinu-(w)a nõ mwa.* [GO]
NMLZ-warm-LNK interior house
'The warmth inside the house.' (lit. the warmth of the interior of the house)

(71) *Nõõli me-phû-(w)a dònò.* [GO]
look.TR NMLZ-blue-LNK sky
'Look at the blue of the sky !'

The following stative deverbal nouns denoting a property are indirectly marked by *i* (+animate possessor), *(x)o* or *(w)o* with inanimate possessors.

(72) a. *… pune me-piça (x)o/(w)o bwaa-je.* [GO]
cause NMLZ-hard PREP head-POSS.3SG
'…due to his stubbornness.' (lit. due to the toughness of his head)

b. *Me-yuu i je.* [GO]
NMLZ-stay PREP 3SG
'his way of life' (lit. way of staying).

(73) *Kavwö nu trõne-kaamweni me-vhaa i la.* [GO]
NEG 1SG hear-understand NMLZ-speak PREP 3PL
'I do not understand their speeches/words.'

To sum up, deverbal nouns derived from intransitive and stative verbs may occur with the semi-direct *–a* construction denoting transient properties, or with indirect possessive construction, while nouns derived from two-argument verbs have the direct and indirect possessive patterns.[47]

8 Spatial nouns and their adnominal possessive constructions

Nouns denoting spatial relations (under, above, to the side of, in the middle of, etc.) are directly possessed; some of these span into time relations. Some are bound nouns with the CST *–n* suffix in PA and BO (like *murò-n*, *hulò-n*, *bala-n, gòò-n* in (74a) to (74d)).

(74) a. *murò-n* [BO] 'behind, after him' ('its hind part')
b. *hulò-n* [BO] 'the endpoint, extremity' (of a long or high object)
hulò de [GO] 'the end of the road', *hulò cee* [PA] 'the top of the tree'
c. *bala-n* [PA] 'extremity, endpoint'
bala-khò [PA] 'the limit of the ploughing' (where one stopped)
bala-pho [GO] 'the limit of the weaving' (where it is interrupted)
d. *gòò-n* [PA BO], *gòò* [GO]
ni gòò-n [PA] 'in its middle'

Some of these locative nouns have personal possessors: *gòò-ny* [PA] 'my waist'; *kòlò-nu* [GO], *kòlò-ny* [PA] 'at my place, at home'. Some originate in and are semantic extensions of body-parts, like *bwa* 'head', *kaça* 'hind part' (75a), *kai* 'back' (75b).

(75) a. *E phu kaça-je !* [GO]
3SG fly back-POSS.3SG
'He flies behind him.'
b. *Ge je kai-nu.* [GO] ~ *Ge je kai-ny.* [PA]
be.LOC 3SG back-POSS.1SG be.LOC 3SG back-POSS.1SG
'He is behind me, after me' (lit. he is back-my)

These locative nouns may combine to denote sub-parts of body parts, for instance:

47 See Palmer (2008: 131–137) for an analysis of the possessive constructions of nominalizations in various Oceanic languages.

(76) *bwa-xaça hii-je* [GO] (lit. top-back hand-his) ‘the back of his hand’
bwa-xaça kòò-je [GO] (lit. top-back foot-his) ‘the top of his foot’ (vs. the sole).

9 Quantifier nouns and their adnominal possessive constructions

As in Nêlêmwa (Bril 2002: 391–396), quantifier nouns expressing parts-of-whole relations (e.g., a part of, amount of, the whole of) have direct or indirect possessive constructions, depending on their possessee class. No construction with the suffix *–a* was found.

Among directly possessed quantifiers, some are bound nouns displaying the CST *-n* in PA, BO (lost in GO): e.g., *mhava-n* [PA], *mhava* [GO] ‘piece, part of’ in (77a); *ãbaa* ‘some’ (77b); *kôgò-n* [PA BO] in (78); *jiu-n* ‘the whole’ [PA] in (79).

(77) a. *mhava g*ò [PA] ‘a piece of bamboo’ (*gò* ‘bamboo’)
b. *ãbaa-laa* [GO] (lit. some-POSS.3PL) ‘some of them’

(78) *Gaa mwêênò kôgò-n* *a*[48] *hovwo*. [PA BO]
still remain left-over-CST EP food
‘There is still left-overs of food.’

(79) *Kavwö nu khõbwe jiu-n*. [PA]
NEG 1SG say whole-CST
‘I haven’t said the whole of it.’

The quantifier noun *phavwu* [GO] ‘numerous’ is an indirectly possessed noun: *phavwu i la* ‘they are in great number’ (lit. a great number of them).

10 Modal nouns and their adnominal possessive constructions

As in Nêlêmwa (Bril 2002: 229–239), various nouns encode some modalities listed in Table 4. All are directly possessed nouns; they are bound nouns occurring with the absolute suffix *–n* in PA and BO, with the absolute suffix *-t* in NEL, and with the absolute suffix *–r* in Nyelâyu (YAL) (Ozanne-Rivierre 1998: 37).

48 The vowel is epenthetic and avoids having two consonants in contact.

Table 4: Modal nouns in some northern Kanak languages.

	GO PA BO	NEL	YAL
Measure, ability, possibility'	jaxa-(n)	jaxa-t	jaxa-r
Will, heart, desire	ai-(n)	awa-t	ayua-
Load, duty, mission	phò-	fha-t	phaa-r
Mission, duty	nobwò-	hnabwa-t	maalâ-
Interdiction	kêbwa	khera-t	

As a modal noun, *jaxa-n* [PA BO], *jaxa-* [GO] 'size, measure' expresses ability (80a) and epistemic meaning (80b); the possessive pronoun refers to the argument endowed with the ability to act (80a) or to the argument possibly affected by the event (80b); the possessive pronoun may be ellipted if referential as in (80b).[49] These modal nouns may function as predicates often heading complement clauses marked by the conjunctions *vwö* (80) or *na* (84a).

(80) a. *Kavwö jaxa-je vwö e zòò.* [GO]
NEG measure-POSS.3SG CONJ 3SG swim
'He can't swim.' (lit. it is not his measure to swim)

b. *Za jaxa-(laa) vwö lha za mã !* [GO]
ASS measure-(POSS.3PL) CONJ 3PL ASS die
'They could/might have died.'

Ai-n 'heart, will, desire', expresses a wish as in (81a)–(81b) and heads a complement clause. The possessive pronoun refers to the experiencer of the wish.

(81) a. *Ai-nu vwö pe-mhe-õ.* [GO]
will-POSS.1SG CONJ REC-stroll-POSS.3TRI
'I'd like us to go together.'

b. *Ai-m da ? – Ai-ny u nu a.* [PA]
will-POSS.2SG what? will-POSS.1SG CONJ 1SG leave
'What do you want ? – 'I want to leave.'

The noun *phò-n* 'load', also used as a possessive classifier, also means 'mission, duty' by metaphoric extension as in (82a)–(82b), and it has some deontic meaning, as in (82c), where no ambiguous notion of carried load is involved.

49 *Jaxa-* also means 'enough' in some contexts such as *gu jaxa* ! [GO] 'it's enough !' (lit. truly the measure).

(82) a. *Novwö phò-je na xòlò Treã-ma ça a-phe-fhaa.* [GO]
as.for load-POSS.3SG LOC side chief-ASSOC TPC NMLZ-carry-speech
'As for his mission towards the chief, it's to be the messenger.'

b. *Da nye phò-çö nani jenã ?* [GO]
what? that load-POSS.2SG LOC that
'What are your meddling in that for ?' (lit. what's your duty in that ?)

c. *Phò-m [a] tha kui.* [PA]
load-POSS.2SG EP dig.up yam
'You have to dig up yams.' (lit. your duty is that ?)

The noun *nobwò-* 'task, duty' [GO] can also have deontic usage:

(83) *Nobwò-nu vwö nu na cee-je mõnõ.* [GO]
duty-POSS.1SG CONJ 1SG give starch.food-POSS.3SG tomorrow
'I must (lit. my duty is to) give him starch-food tomorrow.'

The noun *kêbwa-n* is a negative deontic modal noun expressing interdiction.

(84) a. *Kêbwa-n na jo po khõbwe mwã.* [PA BO]
ban-CST COMP 2SG ATTEN say ASS
'You mustn't say anything at all.'

b. *Kêbwa ubò pwaa !* [GO]
ban exit.house outside
'Don't go outside !'

11 Conclusions

It has been argued that direct and indirect possessive constructions in ZY show some broad but inconsistent correlation with the semantic notions of (in)alienability and that the terms (in)alienable are best considered as labels for structural types of possessive marking (i.e., direct or indirect), but they do not provide a fully predictable semantic characterization of possession.

This claim is supported by the fact that nouns denoting kinship and, to a lesser degree, body parts, are split over the two types of constructions; the split for kinship terms is between reference and address terms, not according to semantic notions such as close versus distant kinship types. The split for body-part nouns is between directly possessed dedicated body terms and indirectly possessed metaphorical body terms, the former being the most common. Apart from the directly and indirectly possessed noun classes, another smaller class of nouns contains those that are indirectly possessed with classifiers, and an even smaller one is that of non-possessible nouns which require stem repetition when they occur in possessed noun compounds. Despite some stem allomorphies attributable to diachronic processes

(discussed in Section 2.2), direct possessive constructions are fairly straightforward, and so are indirect constructions.

Nouns usually belong to a unique possessee class, direct, or indirect; alternate possessive constructions are mostly restricted to parts-of-whole (meronymic) relations, some of which may have direct and indirect constructions expressing different types of relations and distinct meanings. Indirect part-of-whole constructions with the possessive linkers *ni* ~ *ne* denote extraneous or metaphorical relations. A few directly possessed nouns may have an alternate semi-direct construction marked by the accreted possessive linker *–a*, expressing a more transient or contingent part-of-whole relation than the one expressed by the direct construction.

In other Oceanic languages with similar constructions, these alternate constructions with different meanings are rightly called associative possessive relations by Lichtenberk (2001) and relational constructions by Pawley and Sayaba (1990: 169).

As in ZY, possessed nouns belong to fairly rigid classes in Xârâcùù (south New Caledonia, Moyse-Faurie 1995: 21), but not all Oceanic languages share this feature, in Manam (Lichtenberk 1985b), many nouns have direct or indirect possessive constructions with semantic differences (inherent vs. contingent), independently from possessee noun classes.

As shown in Table 5, the direct and indirect possessive constructions are the most common, also reaching into the domain of quantifier nouns; on the other hand, modal and spatial nouns only belong to the class of directly possessed nominals. The semi-direct *–a* construction occurs in parts-of-whole relations and for possessed deverbal nouns derived from intransitive and stative verbs.

Table 5: Types of possessive adnominal constructions in ZY: A summary.

	DIRECT	**INDIRECT**	**SEMI-DIRECT with *-a***
Directly possessed nouns	+		
Indirectly possessed nouns		+	
Possessive classifiers	Hybrid: directly possessed CLASS, indirectly possessed noun		
Body-parts	+	Metaphorical terms	
Kinship	Reference terms	Address terms	
Meronyms (varying with possessee's class or relation)	+	+	+
Nominalizations	+	+	Intrans. & stative verbs
Spatial nouns	+		
Quantifier nouns	+	+	
Modal nouns	+		

Linguistic change reshapes systems and re-assigns nouns within possessee classes, sometimes causing depletion or loss of some of these classes. For instance, the loss of all final consonants in GO resulted in the loss of bound nouns in that lect; besides, the loss of the original pronominal possessive suffixes in GO also tends to blur possessee class distinctions in this lect. This highlights the role of morpho-syntactic factors in class (re)assignment, which may lead to structural reorganization and to fading correlations with (in)alienability distinction, even though, as often noted, the direct ~ indirect dichotomy in Oceanic languages may have been semantically based. Language change within the ZY lects, and more broadly among the other northern Kanak languages, also results in divergent class reassignment of some nouns, as illustrated by the noun 'blood' which is directly possessed in ZY and Nyelâyu, but indirectly possessed in NEL.

Taking a broader Austronesian perspective, the structural direct ~ indirect dichotomy and its (in)alienability correlation is an innovation found in Oceanic languages, with some precursors in Eastern Indonesia and in some Eastern Malayo-Polynesian languages of South Halmahera and West New Guinea (Donohue and Schapper 2008: 318–319), but it is lacking in many western Austronesian languages. Among Oceanic languages, these possessive systems undergo ongoing changes, innovations and losses, a sign of their plasticity.

Abbreviations

ASS	assertive
ASSOC	associative
ATTEN	attenuative
CST	construct suffix
CL	classifier
CONJ	conjunction
CONT	container
DET	determiner
DETR	detransitivizer
DU	dual
DYA	dyadic marker
EP	epenthetic vowel
EXS	existential verb
FR	free pronoun
INCL	inclusive
INTR	intransitive
LOC	locative
NEG	negation
NMLZ	nominalization
POSS	possessive

PREP	preposition
REC	reciprocal
REL	relative marker
TPC	topic
TR	transitive
TRI	trial

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