

Attributive possession

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Abstract

Possessive modifiers of nouns can be nominal or pronominal. Nominal possessors are typically introduced by a morphologically complex procliticised genitive relator known as the connective or associative in Bantu studies. Pronominal possessors, aka possessive pronouns, are derived from connective constructions with a pronominal possessor. This chapter discusses morphosyntactically and semantically conditioned variation in the shape of the connective relator. This variation points to a tendency for the emergence of connective constructions that are dedicated to the expression of possessive relations. Variation also exists in the form of possessive pronouns and in the structure of their paradigms. There is a typological split among Bantu languages of all areas and subgroups between languages with a full versus a reduced paradigm of possessive pronouns. Full paradigms are here argued to be innovative. Furthermore, this chapter will analyse the typologically remarkable status and position of possessive modifiers in the Bantu noun phrase and point to a possible explanation for them. When modified by a pronominal possessor, a restricted set of nouns containing essentially kinship terms deviate formally from other nouns in a variety of ways that are here analysed as inalienable possession constructions and that are in need of more research.

1. Introduction

This chapter provides a comparative analysis of the expression of attributive possession in the Bantu languages, as exemplified in (1).

- (1) Cuwabo (P34) (Guérois 2019: 745)
mú-róbo w-a = Júwão
3-medicine 3-CON = João
'João's medicine'

Predicative possession, as illustrated in (2), is the topic of a forthcoming chapter by Denis Creissels (to appear) and will not be discussed here. Equally not treated in this chapter are so-called external possession constructions, where the verb has an extra argument that can be alternatively construed as the possessor of one of the arguments for which it subcategorises, as is the case for ‘man’ in (3). Van de Velde (2020) provides a comparative Bantu analysis of the phenomenon that argues that these constructions are not used to express possessive relations and renames them as Concernee-Concern constructions.

(2) Eton (A71) (Van de Velde 2008: 205)

a-gbélô sêm i = mət wâ anó ‘má

SM1-grasp.RES same 9.CON = car like I

‘He has the same car as I.’

(3) Kinyarwanda (JD61) (Kimenyi 1980: 104) (Kimenyi 1980: 104)

umu-góre y-a-shokoj-e umu-gabo umu-satsi

1-woman SM1-PST-comb-FV 1-man 3-hair

‘The woman combed the man’s hair.’

Following Creissels (2006), an attributive possessive construction can be defined as a construction in which a noun phrase used to refer to an individual entity modifies a head noun so as to restrict the potential referents of that head noun to those that have a privileged relationship with that individual entity, and where the nature of this relationship is minimally specified. This definition has the advantage of being more accurate and more encompassing than the ostensive definitions found elsewhere in the literature, which provide partial lists of possible semantic relations expressed by constructions such as the Bantu connective construction. Creissels uses this definition for what he calls genitive constructions, i.e. constructions in which the modifier is nominal, versus possessive constructions, where the modifier is pronominal. I will use the term possessive construction to encompass both and take Creissels’ definition to apply to both.

As is typical for our current knowledge of the Bantu languages, the basics of the grammatical expression of attributive possession are well known, but the rich typological variation that can be found in these domains is often in need of careful comparative study, which holds the

promise of uncovering theoretically interesting typological correlations and mechanisms of morphosyntactic change. In the domain of adnominal possession, this is especially true where the possessee is a kinship term.

Section 2 discusses the so-called connective construction, the construction used, among many other things, for expressing attributive possession when the possessor is nominal. It gives special attention to formal variation conditioned by characteristics of the possessor. Section 3 looks at possessive pronouns, i.e. attributive possessive constructions in which the possessor is pronominal, paying specific attention to the ways in which possessive pronouns can be identical to versus different from connective constructions with a pronominal modifier, as well as to the structure of possessive pronoun paradigms. Connectives and possessive pronouns are taken up again in Section 4, this time in relation to their behaviour within the noun phrase, where especially possessive pronouns tend to be the elements that have the strongest syntactic link with the head noun, as shown by their ordering and agreement properties. The Bantuist literature recurrently mentions the existence of an alienability distinction as a conditioning factor in the choice between external and attributive possession. In the interest of analytical accuracy - alienability is not really relevant for so-called external possession - and terminological consistency with the general literature, I will restrict the use of the term *inalienable possession* to the analysis of the dedicated attributive possessive constructions used for kin term possesseees in Section 5 on possessive classification. The discussion in Section 5 is necessarily programmatic and aims to provide an overview of the main parameters of variation that a thorough comparative study should pay attention to.

2. Nominal possessive modifiers: the connective construction

A possessive relation between two nouns is expressed by means of the connective construction, also known as connexive or associative, illustrated in (1) and (4).

(4) Manda (N11) (Bernander 2017: 87)

pa-li-sina l-a = mu-kongo

16-5-trunk 5-CON = 3-tree

‘under the trunk of the tree’

In this construction, the possessor NP is linked to the possessee by means of a relator that typically consists of a prefix which marks agreement with the possessee, normally from the pronominal prefix (PP) paradigm, and a fixed element that Meeussen (1967) reconstructed as *- \tilde{a} . In this reconstruction, the tilde indicates a tone identical to that of the preceding prefix. The tone of connective *-a* in contemporary languages cannot always be straightforwardly shown to be a reflex of that reconstructed by Meeussen, since there are very many languages in which it is always high and some where it is always low. The former could be explained by analogical levelling, since the PP is high in most classes, the latter much less easily. See Nzang Bie (1995: 322-388) for a detailed discussion. Equally unexplained is the fact that in a small, but geographically discontinuous group of languages such as Mwera (P22), Lamba (M54) and Luganda (JE15) the connective relator has a phonologically long vowel *-a:* (Nzang Bie 1995: 283-300).

In many descriptions, the connective relator is analysed as a series of prefixes. Alternatively, it can be analysed as a morphologically complex proclitic. As shown in Van de Velde (2013), the connective construction can be used to link many types of linguistic elements in order to express a multitude of semantic relations, including classification, qualification and quantification. In this chapter, we only look at its use as a marker of possessive relations, as defined in the introduction.

Some variation in the vowel quality and/or tone of the connective relator is due to the fact that connectives are one of the contexts where Bantu languages can have a so-called latent augment, i.e. a trace of the former presence of a vocalic augment prefixed to the possessor noun (de Blois 1970; Halpert, this volume). The connective relators of examples (5a-b) of the Kisémbómbó variety of Zimba (D26) have a vowel *e* instead of *a*. Moreover, the tone of the relator is rising in (5b), rather than the low tone we expect with an agreement controller of class 1, which has a low pronominal prefix. These are traces of a former *í-* or *é-* augment on the possessor noun. Proof for this can be seen in example (5c), where the possessor is a class 1a noun, i.e. a noun that has never had an augment in Zimba, and where the vowel of the connective relator is therefore *a*.¹

¹ Class 1a is a set of nouns that historically lack a noun class prefix and/or an augment, that trigger agreement of class 1 and that typically contains proper names, certain kinship terms and borrowings.

(5) Zimba (Kabungama 1994: 270)

- a. mo-kela w-é = n-géma
3-tail 3-CON.AUG = 9-monkey
'the monkey's tail'
- b. mo-tamba w-ě = moca
1-sister 1-CON.AUG = slave
'the slave's sister'
- c. mw-ăna w-a = Kendénga
1-child 1-CON = Kendenga
'Kendenga's child'

In many of the North-western Bantu languages the form of the connective relator is simpler: either the segmental part of the PP is absent, or the fixed element *a*; or both, leaving only a floating tone. Depending on the language, these segmental reductions can be conditioned, most often by the noun class of the possessee, often depending on the shape of its PP. An overview can be found in Nzang Bie (1995).

In a number of languages unevenly spread throughout the Bantu area, at least some nouns of class 1a cannot function as possessors in a regular connective construction. Instead, they have to be preceded by another morpheme, sometimes called *amplexive*, to which the connective relator attaches. Gyeli (A801) is a geographical outlier in this respect, as all other known cases are found in Eastern Bantu languages. Example (6a) shows a regular connective construction with an agreeing relator. In (6b) the personal proper name possessor is marked by the morpheme *ngá*, which is only preceded by a connective relator if the possessee is plural (6c).

(6) Gyeli (Grimm 2021: 323, 331, 332)

- a. m-ínó má = ba-só
4-name 4.CON = 2-friend
'the names of the friends'
- b. m-udû ngá Nándtungu
1-man POSS Nandtougou
'Nandtougou's husband'
- c. ma-kwámó má = ngá Nándtungu

6-bag 6.CON=POSS Nandtougou

‘Nandtougou’s bags’

In Nyamwezi (F22), personal proper names and kin terms of class 1a are preceded by *ɲwaa* in the connective construction (7b), a morpheme that also appears when these nouns are preceded by a locative marker (8b). In fact, *ɲwaa* can likely be analysed as a connective relator of class 18, of which the pronominal prefix *mu-* is realized *ɲw-* in front of a vowel. The glosses in (7-8) reflect this etymology.

(7) Nyamwezi (Maganga & Schadeberg 1992: 89–90)

a. shi-koló sh-áá = m̄-suzí

8-tool 8-CON = 1-blacksmith

‘tools of a blacksmith’

b. ɲoombe y-a-ɲw-aa = kapela

9.cow 9-CON-18-CON = Kapela

‘Kapela’s cow’

(8) Nyamwezi (Maganga & Schadeberg 1992: 75)

a. ku-βa-suzí

17-2-blacksmith

‘at the blacksmiths’

b. ku-ɲw-aa = magaanga

17-18-CON = Maganga

‘at Maganga’s’

This pattern is more widespread in an area comprising zones M, P and S in southern Africa, where the additional element originates in a locative preposition meaning ‘*chez*, at somebody’s place’, typically used with personal proper names and kinship terms. This marker has the shape of the class 17 connective relator *kwa* in languages such as Tonga (M64), Bemba (M42) and Yao (P21) and has the unanalysable shape *ka/ga/χa* in languages such as Tswana (S31), Swati (S43), and Soli (M62) (Nzang Bie 1995; Güldemann 1999). See Idiatov (to appear) for more discussion on the origins and uses of *ka*.

(9) Bemba (Givón 1969: 77)

a. i-n-dalama cy-aa = mu-ana
AUG9-9-money 9-CON = 1-child
'the money of the child'

b. i-m-fwa cy-aa = kw-aa = Nkole
AUG9-9-death 9-CON = 17-CON = Nkole
'the death of Nkole'

In Zulu (S42), the morpheme *ka* is preceded by a subject prefix, rather than by the connective relator *PP-a*, except when the subject prefix lacks an initial consonant, in which case it is omitted. The regular connective construction can be used when the modifying noun belongs to class 1a, but in that case it is used to express classification (10a) rather than possession (10b). The possessor class 1a noun evidently has to be a common noun then (Güldemann 1999; Doke 1992).²

(10) Zulu (Doke 1992: 120)

a. u-b-oya b-o = nogwaja
AUG14-14-fur 14-CON.AUG1 = 1a.hare
'hare fur' (classification: a type of fur)

b. uboya bu-ka = nogwaja
AUG14-14-fur 14-CON.POSS = 1a.hare
'the fur of the hare' (possession)

In Lamba and Mwera we find a similar pattern, but expressed by means of a different strategy (Doke 1927; Doke 1938: 163; Harries 1950). If the possessor is a personal proper name or kin term of class 1a, the possessive linker is a third person singular (class 1) possessive pronoun *-akwe* that agrees with the possessee (11). Again, if the possessor is a singular common noun of class 1a, then a possessive pronoun relator is used to express possession and a connective relator to express classification (12).³

² The connective relator *bo* in example (7a) contains a latent augment. Zulu is one of a restricted number of languages in which class 1a nouns have an augment, but lack a class prefix (de Blois 1970: 115).

³ In Doke's and Harries' terms, the connective relator is used "with impersonal nouns of Class 1a, when indefinite or general." Harries translates example (12a) as 'the cow's head'. While this translation is compatible with a

(11) Mwera (Harries 1950: 60)

a. $\widehat{\text{ny}}$ -umba j-a:kwe a-tati
9-house 9-3SG.POSS 1a-my.father
'my father's house'

b. $\widehat{\text{ny}}$ -umba j-akwe
9-house 9-3SG.POSS
'his house'

(12) Mwera (Harries 1950: 60)

a. n-twe gw-a:=ɲombe
3-head 3-CON=1a.cow
'the cow's head' (classification: a kind of head)

b. u-kulu gw-a:=kwe cu:la
14-size 14-CON=3SG.POSS 1a.frog
'the size of the frog' (possession: the size of a specific individual)

Variations on this theme can be found throughout Eastern Bantu. In Makwe (G402), the possessive relator is the third person singular possessive pronoun whenever the possessor is human and singular (Devos 2008). In Kagulu (G12) the use of the 3SG possessive pronoun as a possessive relator is possible in this context, but not obligatory (judging from textual examples in Petzell [2008]); and in Ruwund (L53) the possessive pronoun can be used in free variation instead of the connective relator whenever the possessor is human, also when it is plural (Nash 1992).

Finally, some languages of zone C, such as Bobangi (C32), Mongo (C61), Tetela (C71) and Bolia (C35b) have a regular PP(-a) relator, as well as one or more connective relators dedicated to expressing possession. The latter always consist of an agreement prefix (PP) and a fixed element *-mbe*, *-ná*, *-ká*, *-áká*, *-náká*, *-ánáká*, *-nkí* or *-aaki*. The *ná* form is most likely (cognate with) the so-called associative preposition *ná* 'with', whereas *-(n)ki* is a (past) relative form of the verb 'be'. The *ká* element is formally identical to the amplexive used in the Nguni

non-specific possessor, it is more ambiguous than a translation with an indefinite article would have been, i.e. 'the head of a cow'. Doke translates similar examples with an indefinite article in English.

languages and can also be preceded by the connective stem *a-*. The examples in (13) illustrate the two constructions in the Bombwanja dialect of Mongo: the dedicated possessive construction (13a) and the general connective construction (13b).

(13) Bombwanja dialect of Mongo (Hulstaert 1965: 172)

a. nyama i-ná Ikólɔŋɔ

10.animals 10-POSS Ikolongo

‘the animals of Ikólɔŋɔ’

b. nyama y-ǎ = n-gonda

10.animals 10-CON = 9-forest

‘forest animals’

Summarising, on top of the canonical *PP-a* connective relator, many Bantu languages have one or several more elaborate linkers. The use of these is determined either by the morphosemantic properties of the modifying noun, or by the type of relation that is expressed, or by a combination of both. There is a clear link between these conditionings. The type of relation expressed by the more elaborate relator is always possession, as opposed to a less specific relation that can include qualification, classification and localisation. The modifying nouns introduced by the more elaborate relator are nouns of class 1a, which typically contains proper names and kinship terms, the most prototypical possessors.

3. Possessive pronouns

Possessive pronouns generally have the structure of a connective modifier with a pronominal possessor, i.e. *PP-a-PRO*, where *PRO* is short for the pronominal form that indexes the possessor. The *PRO* part of possessive pronouns is often similar to the independent personal pronouns called *substitutives* by Meeussen (1967). It tends to be formally decomposable below the morpheme level. Kamba Muzenga (2003) shows that substitutives across Bantu can have reflexes of five formal elements: *a + V + IND + e/o*, where *IND* (short for *index*) is the agreeing part and the other elements are fixed. By way of an illustration, Table 1 shows the possessive pronouns of Lunda (L52), as compared to its substitutives. The substitutive paradigm does not have third person forms other than those of classes 1 and 2 (Kawasha 2003: 98, 112).

	substitutives		possessives	
	SG	PL	SG	PL
1	ami	etu	PP-a-ami	PP-a-etu
2	eyi	enu	PP-a-eyi	PP-a-enu
CL 1/2	yena	wena	PP-a-indi	PP-a-wu
CL 3/4, ...			PP-a-wu	PP-a-yu

Table 1: Lunda possessive and substitutive pronouns

There is never a perfect match between the substitutives of a language and the PRO part of its possessive pronouns. The clearest mismatch in Table 1 can be seen in the class 1 forms, where we find *yena* versus *indi*. This is typical. Bantu languages that have a reflex of the index **yi* in their class 1 substitutive (as does Lunda: *yi-e-na*) tend to have a reflex of **ndi* (mainly in western Bantu) or **ka/ku* (mainly in the East) in the class 1 possessive pronoun (Kamba Muzenga 2003: 129, 272, 279), e.g.:

(14)	substitutive	possessive	
Kanyok (L32)	yíy ¹	-indíy ¹	(Stappers 1986)
Lucazi (K13)	ikéye	-éni	(Fleisch 2000)
Lamba (M54)	ye	-kwe	(Doke 1938)

Other recurrent differences can be found in the 1st person singular pronoun, where most languages have the index *mi* or *ni* in the substitutive, whereas there is much more variation in the possessives (including *ngu*, *nga*, *ngi*, *mi* and *ni*). In the 1PL forms, the initial stop of the substitutive index *tu* often corresponds to a fricative in the possessive pronouns (*su*, *fu*).

Contemporary Bantu languages can be classified into two types according to the size of their paradigm of possessive pronouns, viz. full or reduced. Languages with a full paradigm have a possessive stem for all the nominal classes to which a possessor can belong. A language of this type with eighteen noun classes will have twenty two possessive pronoun stems, one for each class plus four for the discourse participants. Mituku (D13) is an example (Stappers 1973: 30-32), see Table 2.

1SG	-aní	2SG	-abé	1PL	-itó	2PL	-inú
CL1	-andí	CL6	-aô	CL11	-aô	CL16	-aô
CL2	-abô	CL7	-acô	CL12	-akô	CL17	-akô
CL3	-aô	CL8	-abéô	CL13	-atô	CL18	-amô
CL4	-ayô	CL9	-ayô	CL14	-abô		
CL5	-aô	CL10	-alô	CL15	-akô		

Table 2: Mituku possessive pronoun stems (Stappers 1973)

(15) Mituku (Stappers 1973: 32)

- a. meli yaô ‘its roots’ (of a tree, cl. 3)
- b. meli yayô ‘their roots’ (of trees, cl. 4)
- c. beópi bákô ‘its wings’ (of a bat, cl. 12)
- b. beópe bátô ‘their wings’ (of bats, cl. 13)

Full paradigms of possessive pronouns can be found throughout the Bantu area, e.g. in Libinza (C321), Ngombe* (C61), Bushoong (C83), Mituku (D13), Nande (JD42), Ha (JD66), Ganda* (JE15), Kabwa (JE405), Nyamwezi (F22), Cokwe* (K11), Totela (K41), Kaonde* (L41), Lunda (L52), Lamba (M54), Cewa* (N31), Sena* (N44), Umbundu* (R11), Yeyi (R41), Herero (R30), and Ronga (S54).⁴

Languages with a reduced paradigm have six possessive pronouns, the pronouns used for third person possessors being reduced to one for the singular and one for the plural. From a comparative point of view, the 3SG pronoun can be identified as that of class 1 and the 3PL pronoun as that of class 2.

⁴ The languages marked by an asterisk in this and the following enumeration were taken from the Parameter P016 report of the Morphosyntactic Variation in Bantu project (Marten et al. 2018). I wish to thank Lutz Marten for allowing me to consult it.

(16) Ndengeleko (P11) (Ström 2013: 170)

ywaa ngúku akáánsike mapinga gááke

yu-aa n-guku a-kanz-ike ma-pinga ga-ake

1-that 9-hen SM1-break-PFV 6-egg 6-3SG.POSS

‘That hen broke her eggs.’

(17) Mwera (Harries 1950: 59)

a. m-konjo na = maamba g-a: = kwe

3-tree and = 6-leaf 6-CON = 3SG.POSS

‘the tree and its leaves’

b. mi-kono na = ma-cili g-a: = βo

4-arm and = 6-strength 6-CON = 3PL.POSS

‘the arms and their strength’

Such a reduced paradigm can also be found throughout Bantu, e.g. in Bafia* (A51), Tuki* (A601), Eton (A71), Gyeli (A801), Orungu (B11), Nzadi* (B865), Mongo (C61), Nyoro* (JE11), Kikuyu* (E51), Digo* (E73), Rangi* (F33), Kagulu (G12), Vili (H12), Kimbundu* (H21), Ngangela* (K12b), Nyiha* (M23), Bemba* (M42), Matengo* (N13), Mwera (P22), Makhuwa* (P31), Tswana* (S31) and Zulu* (S42).

Sometimes, very closely related languages differ from each other in having a full or reduced paradigm of possessive pronouns. Of the Mara (E40) languages Ikizu, Ikoma, Kabwa, Ngoreme, Simbiti and Zanaki, for instance, only Kabwa has a full paradigm (Aunio et al. 2019). Meeussen (1967) tentatively reconstructs a full paradigm into Proto Bantu. However, it is much easier to explain how full paradigms can emerge from connective constructions with a pronominal modifier than to explain the breakdown of a full system in so many languages with a reduced paradigm in such a uniform way. Indeed, there are to my knowledge no examples of partial breakdowns, where forms of, for instance, the least frequently used classes have gone first. It is therefore probably better to reconstruct a reduced paradigm, but a comparative study is needed to confirm this.

4. Adnominal possessors in the noun phrase

The main aim of this section is to show that possessive pronouns are arguably the most nuclear adnominal modifiers in the Bantu noun phrase and to explain how this typologically unusual situation may have come about. I will start by briefly discussing three other syntactic aspects of possessive constructions, viz. possessive chaining, the coordination of adnominal possessors and construct form marking by means of Burssens' rule.

As in the great majority of the languages of the world, possessive modification is recursive and the morphosyntactic characteristics of the constituents of a possessive chain are fully predictable if one knows simple possessive constructions. Since connective relators can be used anaphorically, possessive chains can involve a succession of connective relators, as in the Tswana example in (18b), which is short for the one in (18a).

(18) Tswana (Creissels 1993)

a. \dot{m} -híjána w-á = sɪ-lépe s-á = mɔ-ńná
3-handle 3-CON = 7-axe 7-CON = 1-man
'the handle of the axe of the man'

b. \dot{m} -híjána w-á = s-á = mɔ-ńná
3-handle 3-CON = 7-CON = 1-man
'the handle of the one of the man'

The potential anaphoric use of the connective relator also explains the difference in interpretation in some languages between utterances with coordinated possessors depending on whether the second possessor is introduced by a connective relator or not. If it is, there are two possesseees (19a), if it isn't there is one possessee jointly possessed by two possessors (19b).

(19) Mongo (Hulstaert 1966: 286)

a. i-lɔmbe y-ǎ = Boliá la y-ǎ = Bolínga
19-house PP₁₉-CON = Bolia and PP₁₉-CON = Bolinga
'the house of Bolia and that of Bolinga'

b. i-lɔmbe y-ǎ = Boliá la Bolínga
19-house PP₁₉-CON = Bolia and Bolinga
'the house of Bolia and Bolinga'

Interestingly, a construction with coordinated possessors like the one in (19b) is also possible with a possessive pronoun as the first coordinand in Mongo and Orungu (B11), which is probably due to the connective origin of possessive pronouns. If the second coordinand is also pronominal, it is a substitutive (= personal) pronoun in the expression of joint possession (21a) and a possessive pronoun in the expression of distributed possession (21b). Since it is hard to find information on this in grammatical descriptions, I do not know how widespread this syntactic pattern is in the Bantu languages.

(20) Mongo (Hulstaert 1966: 131)

bɔ-kɛli bɔ-kě l' Eyómbé
3-brook 3-2SG.POSS and Eyombe

‘the brook belonging to you and Eyombe’ (lit. ‘your brook and Eyombe’)

(21) Mongo (Hulstaert 1966: 132)

a. li-kambo lí-kísó l' ɲnyo
5-palaver 5-1PL.POSS and 2PL

‘the palaver between you (PL) and us’ (lit. ‘our palaver and you (PL)’)

b. li-kambo lí-kísó la lí-kínyó
5-palaver 5-1PL.POSS and 5-2PL.POSS

‘your (PL) palaver and ours’ (lit. ‘our and your (PL) palaver’)

A small number of languages of zones D (Enya, Mituku), K (Ndembu, Lwena) and L (Luba-Kasaï, Sanga) have a rule of tonal plateauing that is known by some as Burssens’ Rule (Nsuka-Nkutsi 1982: 58) and that Meeussen reconstructs in his Proto-Bantu (1967: 106). According to this rule, the final *HL pattern of a head noun becomes *HH if the noun is immediately followed by the *H pronominal prefix of a connective modifier, a possessive pronoun or a relative verb form.⁵ The word *mbúli* ‘goat’ in Mituku keeps its lexical final low tone in (22a), where it is followed by a low connective relator. In (22b) it is followed by the high connective

⁵ The asterisk in front of the tones is to show that the rule applies to reflexes of these Proto-Bantu tones. Some of the languages that have Burssens’ Rule, such as Luba, have reversed tones with respect to Proto-Bantu. The plateauing rule is reversed in them too: LH > LL / _ L. The list of languages with Burssens’ Rule is copied from Nsuka-Nkutsi (1982: 58), who also included Tiene. Ellington’s grammar does not show evidence for this, as we find *díínè lé mùánà* ‘the tooth of the child’ (Ellington 1977: 63). Nsuka may have been misled by the fact that the connective relator is reduced to a floating high tone when the possessee is a kinship term, as in *nàánà* ‘brother’ versus *nàáné kò* ‘your brother’.

relator of class 10 and Burssens' Rule creates high tone plateauing. Example (22c) shows that plateauing is syntactically conditioned, as it is not triggered by the high of a following demonstrative.

(22) Mituku (Stappers 1973: 29, 30, 33)

- a. m-búì y-à = bá-mùkálí
9-goat 9-CON = 2-woman
'the goat of the women'
- b. m-búí y-á = mù-íbí
10-goat 10-CON = 1-thief
'the goats of the thief'
- c. m-búì lí-nè
10-goat 10-DEM
'these goats'

Since the application of Burssens' Rule is partly conditioned by the kind of modifier that immediately follows the noun, the form of the noun that is subject to plateauing can be analysed as a construct form. Interestingly, a similar construct form of nouns exists in Tswana, but here the change is from final HH to final HL, the conditioning is purely syntactic and the set of adnominal modifiers that trigger the change is larger (Creissels 2009: 79–80). Nsuka-Nkutsi mentions Burssens' Rule as part of a discussion of formal resemblances between connective and relative constructions. Although some of these are more convincing than others, the comparison does strongly suggest that the connective relator originates in a relative verb form. This question may not be verifiable for the canonical PP-*a* connective relator, but some of the alternative connective relators found especially in zone C and used to express the relation of possession and/or relations that held in the past transparently originate in a relative form of a 'be' verb, sometimes followed by a comitative, similative or locative preposition (see Section 2 and Van de Velde 2013: 232-233).

We now turn to the special status of possessive pronouns within the noun phrase. The Bantu languages show diverse and typologically very unusual word order patterns in nominal constituents, such as DEM N POSS NUM ADJ, N POSS NUM ADJ DEM or N POSS DEM ADJ NUM. What is remarkable in these and other patterns throughout the Bantu family is that postnominal

possessive pronouns and, to a lesser extent, demonstratives tend to be placed immediately adjacent to the head noun, whereas cross-linguistically these types of modifiers are normally placed at the edge of the noun phrase (Rijkhoff 2008). The strong tendency for possessive pronouns to be immediately adjacent to the head noun can be found in non-Narrow Bantu Bantoid languages too. The Mundabli example in (23) is a good illustration, since the possessive pronoun appears in between the head noun ‘slave’ and its semantically tightly linked classifying modifiers ‘female’ and ‘male’.

(23) Mundabli (unclassified Southern Bantoid, Cameroon) (Voll 2017: 127)

(...)m = b́óŋ mf̃ ŋg̃ kpé ām̀ mf̃ ŋg̃ m̀n̄
 1SG = pick [1]slave 1.1SG.POSS 1.woman and 1.slave 1.1SG.POSS 1.male
 ‘(...) I have picked my slave girl and my slave boy.’

In some languages, connective constructions behave similarly to possessive pronouns in this respect, but this seems to be rare. An example is Bushoong (C83) where the mutual ordering of adnominal modifiers is entirely free, except for possessive pronouns and connectives, which form a grammatical class in being mutually exclusive and obligatorily placed immediately after the head noun (Vansina 1959).

Two agreement phenomena provide another indication for the close syntactic link between adnominal possessive pronouns and their head noun, viz. syntactic agreement and what we could call agreement survival. In syntactic agreement, the choice of an agreement pattern depends on the morphological class of the controller, defined by the nominal prefix (or its absence). This is opposed to the less widespread phenomenon of semantic agreement, where the choice of an agreement pattern depends on aspects of the meaning of the controller. The best known type of semantic agreement in the Bantu languages is animate agreement, where nouns with animate reference trigger agreement pattern 1 in the singular and 2 in the plural, also if they belong to another morphological class (see Van de Velde [2019: 242–247] for an overview of other types of semantic agreement). An example of syntactic (24a) versus semantic (24b) agreement is provided in (24).

(24) Ndengeleko (Ström 2013: 165, 163)

a. m-baa úu

9-rice 9.white

‘white rice’

b. m-bésa a-úu

10-hare 2-white

‘white hares’

When the choice between semantic agreement and syntactic agreement depends on the agreement target, a cross-linguistically valid agreement hierarchy predicts which targets will take semantic agreement and which ones syntactic agreement (Corbett 1979). This hierarchy captures the more general observation that agreement targets syntactically further removed from the agreement controller are more likely to show semantic agreement.

(25) The agreement hierarchy

attributive < predicate < relative pronoun < personal pronoun

In Swahili (G41), animate controllers trigger semantic agreement of classes 1/2 on all agreement targets, with two exceptions: human controllers of classes 5/6 or 9/10 trigger syntactic agreement on possessive pronouns (26a) and so do non-human animate controllers of class 10 (26b) (Wald 1975).

(26) Swahili (Wald 1975: 283–284)

a. Rafiki y-angu a-me-fika

9.friend 9-1SG.POSS SM1-PERF-arrive

‘My friend has arrived.’

b. Ng’ombe z-angu wa-me-fika

10.cow 10-1SG.POSS SM2-PERF-arrive

‘My cows have arrived.’

In Kami (G36) semantic agreement is slightly less pervasive than in Swahili, in that adnominal modifiers other than possessive pronouns optionally show syntactic agreement. Possessive

pronouns are still alone at the top of the agreement hierarchy, though, since on them syntactic agreement is obligatory (Wald 1975).⁶

(27) Kami (Wald 1975: 300)

Ka-ronda ng'ombe dz-angu n-hulu / wa-kulu
SM1-like 10.cow 10-1SG.POSS 10-big / 2-big
'He likes my big cows.'

Much further to the west, Lunda (L52) has a similar pattern (Kawasha 2003). Animate controllers trigger animate agreement of class 1 in the singular and 2 in the plural (but see below for an exception), whatever their nominal class prefix (28). As in Swahili, possessive pronouns show syntactic agreement (29a). The difference is that Lunda treats nominal connective modifiers with a singular head noun as possessive pronouns in this respect (29b). However, this is only if they are used to express possession. When they are used to classify or qualify the head noun, they obligatorily take semantic agreement (30), which interestingly signals a syntactic difference between functionally different types of modifiers that are marked by the same morphological means.

(28) Lunda (Kawasha 2003: 98)

Yena, kansi wenza haloshi.
yena ka-ansi wu-a-inz-a haloshi
3SG.PRO 12-child SM1-PST-come-FV yesterday
'The child came yesterday.'⁷

⁶ Wald (1975: 300) points out that the native speakers he consulted in his comparative study of animate agreement in Northeast Coastal Bantu have a strong dispreference for mixed agreement patterns and tend to continue with the type of agreement (semantic or syntactic) selected for the first agreement target. If I interpret this correctly, the presence of a possessive pronoun in a complex subject NP can have a profound impact on the general outlook of the clause, as it may cause all the other agreement targets to take syntactic agreement as well. This type of agreement harmony strikes me as untypical for Benue-Congo languages.

⁷ Example (28) was chosen to show that the class 12 noun 'child' in subject position triggers semantic agreement of class 1 on the verb. The personal pronoun at the beginning of the utterance, used to signal the topicality of the subject, also shows semantic agreement. However, semantic agreement is the only theoretically possible option here, as Lunda does not have third person personal pronouns of classes other than 1 and 2.

(29) Lunda (Kawasha 2003: 112, 109)

a. ká-wa k-ámi

12-dog 12-1SG.POSS

‘my dog’

b. ka-sumbi k-a = tata

12-fowl 12-CON = my.father

‘the fowl of my father’

(30) Lunda (Kawasha 2003: 108)

ñombi w-a = mw-i-saña

9.cow 1-CON = 18-5-bush

‘buffalo’

A theoretically interesting case of possessive pronouns taking an agreement pattern that deviates from that on other agreement targets occurs with certain kinship terms in Kagulu and Kami. These nouns trigger agreement of class 9/10 (Kagulu) or 5/10 (Kami) on possessive pronouns (31-32), and of class 1/2 elsewhere.

(31) Kagulu (Petzell 2008: 56)

awakolo sangu waya wadatu

a-wa-kolo si-angu wa-ya wa-datu

AUG2-2-uncle 10-1SG.POSS 2-DEM 2-three

‘those three uncles of mine’

(32) Kami (Petzell & Aunio 2019: 570)

lumbu dy-angu

opposite.sex.sibling 5-1SG.POSS

‘my opposite-sex sibling’

As is shown in (31), they may also have the morphological form of class 1(a)/2 nouns. Therefore, the most straightforward analysis is to say that these Kami and Kagulu kinship terms trigger syntactic agreement on all agreement targets, except possessive pronouns. Moreover, since the exceptional agreement pattern on possessive targets is triggered by a semantically coherent set of controllers, namely kinship terms, it can be straightforwardly analysed as a type of semantic agreement. A likely explanation for this situation is that kinship

terms such as Kagulu *-kolo* and Kami *-lumbu* historically belonged to class 9/10 and 5/10 respectively and that they have been reclassified into class 1(a)/2, of which they also acquired the morphological characteristics.⁸ Amusingly, this historical change has turned the agreement hierarchy entirely upside down, in that the domains of syntactic and semantic agreement have been inversed. Indeed, the agreement pattern predicted by the morphology of the noun can be found on all agreement targets, except on the one at the top of the agreement hierarchy, where we find an agreement marker that is semantically justified by the fact that the controller is a kin term.

In Bantu languages that are in the process of losing their class system, possessives tend to be the only agreement target on which agreement in noun class survives. We find this in Nzadi (B865), which has two noun classes consisting of the reflexes of nouns of class 1 and 9 on the one hand and the reflexes of nouns of all the other classes on the other. These classes are defined by the fact that the former has no connective relator (33), whereas the latter has the relator *é*, of which often only the high tone is realized (34) (Crane, Hyman & Nsielanga Tukumu 2011: 78). As the examples in (33-34) show, the distinction is not conditioned by semantic considerations such as animacy.

(33) class *1/*9

- a. *ŋgò̃m mw-ǎ̃n*
 drum SG-child
 ‘the child’s drum’
- b. *ŋkwó mĩ*
 chicken I
 ‘my chicken’

⁸ The word for opposite sex sibling **-dùmbò* is reconstructed as belonging to either class 1, 5, 6 or 1a in Bantu Lexical Reconstructions 3 (Bastin et al. 2003).

(34) class *other

- a. ò-kyá é íkêm
SG-tail POSS monkey
'the monkey's tail'
- b. (ba-)ɲkwó é mí
PL-chicken POSS I
'my chickens'

As there are not many Bantu languages in the process of losing their class system, it is useful to point out that the Nzadi pattern can be found in non-Narrow Bantu Bantoid languages, such as the Bamileke language Fe'fe', where "the only context in which the full range of noun classes are differentiated (...) is in the observed concord of possessive pronouns" (Hyman, Voelz & Tchokokam 1970). A comparative study would be needed to determine the extent to which this possessive agreement survival hypothesis holds.

Summing up, of all the adnominal modifiers, possessive pronouns are the most closely linked to the head noun, both in terms of their word order and their agreement properties. Although one should in general be careful with assuming that logically independent characteristics of linguistic elements have a common explanation, I think this is the case for the word order and agreement phenomena that can be observed with respect to possessive pronouns. The diverse and typologically unusual word order patterns found in the noun phrase of the Bantu languages can be explained by a tendency for modifiers to be nominalized and used in apposition to the noun they modify, and a tendency for such appositional structures to merge into more integrated noun phrases again. These two tendencies form the AMAR mechanism, short for *Adnominal Modifier Apposition and Reintegration* (Van de Velde in press). The most common strategy of nominalisation is to add an augment to the modifier. Possessive pronouns apparently tend to resist AMAR, perhaps because apposition may be used to signal that a modifier allows the hearer to identify the intended referent and that this needs not be signalled for possessive pronouns, because they are inherently identifying. This historical scenario has the advantage of making sense of the exuberant agreement morphology in the Bantu noun phrase, its strange word order patterns and the exceptional agreement behaviour of possessive pronouns. It also explains why Bantu languages with semantic agreement are typologically

unusual in having the cut-off point between syntactic and semantic agreement within the nominal expression, whereas adnominal modifiers cross-linguistically tend to form one coherent position on the agreement hierarchy.

Wald (1975) suggests another possible explanation for the survival of syntactic agreement on possessive pronouns when the controller noun has human reference and belongs to class 5/6 or 9/10 in Northeast Coastal Bantu, viz. the fact (i) that these nouns tend to be kinship terms, (ii) that, being relational, kin terms tend to be followed by a possessive pronoun and (iii) that frequently used constructions are resistant to change. Although more restricted in explanatory scope and not strictly needed, this explanation is perfectly compatible with the one in terms of resistance to nominalisation and apposition. Its underlying observation is highly relevant for the topic of the next section: possessive classification.

5. Possessive classification

Many of the world's languages employ alternative strategies for the expression of possession, the choice of which is determined by the possessee. In the Bantu languages this choice is normally lexically determined, rather than semantically, so following Nichols and Bickel (2013) it can be called *possessive classification*. When the number of alternatives is restricted to two, these strategies tend to be referred to as inalienable (or inherent) possession versus alienable (or established) possession. In the Bantuist literature, the notion of alienability has been used in discussions of external possession, to point out that body part terms (inalienable) are more easily construed as external possessors than other terms (alienable). Van de Velde (2020) argues against the relevance of alienability or external possession, pointing out that body parts are an ingredient of the prototypical situation type usually expressed by means of so-called external possession constructions, for which I propose the alternative term *Concernee-Concern constructions*. However, the Bantu languages do have a binary system of possessive classification that corresponds to what is traditionally described in terms of (in)alienability: the construction used to modify certain kinship terms by means of a pronominal or proper name possessor differs from that used to modify other nouns. The former counts as inalienable possession, the latter as alienable. This can be illustrated with examples from Lunda (Kawasha 2003: 29), where possessive pronouns lack their usual agreement prefix

when they are used to modify certain kin terms. Compare the prefixless 1SG pronouns in (35) to the form *k-ámi* in *káwa kámi* ‘my dog’ in (29a).

- (35) a. *mwánami* (mu-ána ami 1-child-1SG.POSS) ‘my child’
 b. *muhélindi* (mu-hela indi 1-sister-1.POSS) ‘his sister’

In Nzadi, two nouns, viz. *mwǎàn* ‘child’ and *òkáâr* ‘wife’, optionally lose their final consonant when they are modified by a possessive pronoun (Crane, Hyman & Nsielanga Tukumu 2011), meaning that the locus of an alienability distinction can be the head noun.

Typological variation in inalienable possessive constructions with kin term possessees is exuberant and multidimensional in the Bantu languages. No comparative study exists on this subject, which is a pity, because such a study is likely to bring up interesting correlations. One parameter of variation concerns the ways in which inalienable possession constructions differ formally from the constructions with connective relators and possessive pronouns used for alienable possession discussed in Sections 2 and 3. A second parameter of variation concerns the subsets of kinship terms that are inalienably possessed. Thirdly, there is variation in the structure of paradigms of inalienably possessed kin terms, and some generalisations may be found here too. See Baerman (2014) for a typological approach of this topic. For instance, the paradigms for ‘mother’ and ‘father’ tend to be more irregular than those for ‘grandparent’ and ‘child’.

Much of this can be illustrated by means of the terms for ‘father’, ‘mother’, ‘child’ and ‘children’ in Mituku, provided in Table 3. The four paradigms in this table become gradually more regular towards the final column, with the paradigm for ‘mother’ being highly suppletive and that for ‘children’ illustrating the fully regular behaviour of alienably possessed kin terms, where the noun is followed by a possessive pronoun.

possessor	‘mother’	‘father’	‘child’	‘children’
1SG ‘my’	ima	tata	manâ ní	bǎná bâní
2SG ‘your’	njɔkɔ	sɔ̂	manâ bé	bǎná bá‘bé
3SG ‘his/her’	nina	isê	manâ ndé	bǎná bándé

1PL ‘our’	imá bité	tatá bité	maná itó	bǎná bitó
2PL ‘your (PL)’	iná biné	isé biné	maná inú	bǎná bínú
3PL ‘their’	ninabô	isé bô	manâ bó	bǎná bá bô

Table 3: Possessed Mituku kinship terms (Stappers 1973: 32)

The parental terms ‘mother’ and ‘father’ have a fully suppletive term in the first person singular, which are reflexes of Proto-Bantu **máá* ‘my mother’ and **tààtá* ‘my father’. If the forms for ‘your (SG) mother’ and ‘his/her mother’ are cognate, this is not reflected in any segmental resemblance in the contemporary language, so we are dealing with full suppletion here too. The third person form must be a reflex of PB **jìnà* ‘mother’. The same forms are found in the 1st and 3rd person plural, where they are followed by the substitutive pronoun corresponding to the possessor, which is therefore expressed twice: once by the stem for ‘my/your/her mother’ and once by the pronoun. The 2nd person has the same general pattern, except that there is suppletion of the kinship term between the singular and the plural. The forms for ‘your (SG) father’ and ‘his/her father’ are very likely to be cognate, and reflexes of PB **cé* (cl. 1a/2) ‘his father’. Their formal differences are most probably explainable in terms of merger with a pronominal form in the second person, perhaps a form cognate to the Mituku 2SG substitutive *uwe*. This merger must be very old. The authors of Bantu Lexical Reconstructions 3 reconstruct **có* ‘your (SG) father’ as a form derived from **cé* in Proto-Bantu (DER 624) (Bastin et al. 2003). In the plural forms, the possessor is again marked by means of a substitutive, rather than a possessive pronoun, but here the kinship term itself is the same in the 2nd and the 3rd person. Finally, the paradigm for ‘child’ is regular. It differs from the alienable possessive construction in the absence of an agreement prefix on the possessive pronoun, except in the 1st and 2nd person plural forms, where the possessive pronoun always lacks a prefix with class 1 controllers, also in the alienable construction.

A comparative study should look at the types of kin relations that are inalienably possessed across Bantu and compare the levels of suppletion found in their paradigms. It is highly likely that the kin terms that are most often inalienably possessed are also the ones with the most strongly suppletive paradigms, and that these are the parental kin terms ‘mother’ and ‘father’, followed by ‘grandparent’, ‘sibling/cousin’ (either same-sex, opposite sex or both), ‘maternal

uncle’, ‘spouse’ and ‘child’. As we have seen in the Mituku example, the number of the possessee can be a relevant factor too. It is my impression that the less typically inalienably possessed kin terms, the horizontal and descending ones, such as ‘husband’, ‘wife’, ‘sibling’ and ‘child’, are the ones that are most likely to be only inalienably possessed in the singular.

A comparative study should also produce a typology of the formal strategies used to express inalienable possession and, since individual languages tend to employ several of these strategies, an answer to the question whether there are any generalisations to be made regarding the mapping of these strategies on specific kinship relations. We have seen four formal strategies in the Mituku example: full suppletion, partial suppletion as a result of an old or recent merger between a kin term and a possessor marker, juxtaposition of possessee and possessor without an intervening connective relator or agreement marker, and the use of a substitutive pronoun instead of a possessive one. To this we can add the use of an unexpected agreement marker, such as the class 17 prefix triggered by the word for ‘brother(s)’ in Lunda (36) and the use of a relator other than the connective relator, such as the comitative preposition *na* used with the nouns *muhádi* ‘co-wife’, *mulunda* ‘friend’ and *asensi* ‘joking relatives’, also in Lunda (37) (Kawasha 2003).

(36) mána kw-índi
brother 17-1.POSS
‘his brother’

(37) muhádi níndi
mu-hádi na índi
1-co_wife with 1.POSS
‘her co-wife’

Finally, although occasionally other nouns than kinship terms can be inalienably possessed in the Bantu languages, such as ‘house’ or ‘village’, there is to my knowledge only one Bantu language where body parts are generally inalienably possessed on top of kinship terms, namely Bila (Kutsch Lojenga 2003). Bila is formally interesting too, as possessive pronouns in inalienable constructions are the only agreement targets that have retained possible remnants of noun class agreement.

6. Summary

The domain of adnominal possession is one of the many aspects of Bantu noun phrases that remain relatively understudied, despite being theoretically highly interesting. As pointed out in Section 2, nominal possessors are expressed by means of the so-called connective construction, which is a general noun-modifying construction used to express all kinds of semantic relations, including possession. However, here and there connective constructions have emerged that are dedicated to the expression of possession and that either involve a locative marker or comitative/instrumental preposition, sometimes in conjunction with a relative form of a ‘be’ verb, or a possessive pronoun. The use of some of these dedicated possessive constructions is restricted to possessor nouns that belong to class 1a, which typically contain proper names and kinship terms. Due to their high specificity and salience, class 1a nouns are prototypical possessors according to Creissels’ definition of linguistic possession adopted in this chapter. Sections 3 (possessive pronouns) and 5 (alienability) mainly focused on paradigms of possessee-possessor pairs, where the Bantu languages show interesting typological variation, still to be fully discovered for inalienable possession constructions with kinship term possesseees. The syntagmatic properties of possessive pronouns are equally interesting, as they can be argued to be the most nuclear modifiers of the noun in the Bantu languages. In Section 4 we saw that they tend to be ordered closest to the noun among postnominal modifiers - which is typologically highly unusual - and that they are the most resistant to semantic agreement. The proposed diachronic explanation for these characteristics is that possessive pronouns are highly resistant to undergoing the AMAR mechanism, a Bantu tendency for nominalising adnominal modifiers and putting them in apposition to the noun.

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