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1. Introduction

This chapter is concerned with locatives and locative formation in the Bantu languages. Section 2 illustrates how locatives are derived in Bantu, focusing primarily on locative formation by means of locative noun class prefixes and suffixes. Section 3 examines the agreement properties of locatives with respect to locative-internal modifiers and locative-external predicates. The syntactic representations that have been proposed for different types of locatives in Bantu are the topic of section 4. Finally, section 5 discusses the thematic role and grammatical function of locatives, and ends the chapter with some brief remarks on locative applicative, locative shift and locative inversion constructions.

2. The formation of locatives

2.1 Locative noun classes

The most common way of deriving a locative from a non-locative noun in the Bantu languages is by means of the noun class markers of class 16, 17 or 18, which have been reconstructed for Proto-Bantu as **pà* (class 16), **kù* (class 17) and **mù* (class 18) (Meussen 1967, Maho 1999). These markers are prefixed to the base noun, whose original noun class marker is preserved. Locative formation by means of noun classes 16-18 is the rule in the central Bantu region, but locative systems based on these classes are also found in Northeastern and Southern Bantu (Ružička 1959, Grégoire 1975). (1) and (2) provide examples of locatives in all three classes, based on a singular (1) and a plural (2) base noun respectively:¹

(1)	a. pa-n-gándá	b. kú-n-gándá	c. mu-n-gándá
	LOC16-9-house	LOC17-9-house	LOC18-9-house
	'at the house'	'to the house'	'in the house'

[Bemba M42; Marten 2012: 433]

* Thanks to Lutz Marten and an anonymous reviewer for helpful comments on an earlier version of this chapter. I remain responsible for all remaining errors.

¹ In this chapter, I refer to languages by the name and Guthrie code listed in Maho (2008: 53-78). Linguistic examples are glossed as follows: 1SG = 1st person singular; APPL = applicative; ASP = aspect; ASS = associative, AUG = augment; DEM = demonstrative; DJ = disjoint verb form; FOC = focus; FUT = future; FV = final vowel; HAB = habitual; INF = infinitive; LOC = locative; OM = object marker; PFV = perfective; PRF = perfect; PRON = pronominal; PRS = present; PST = past; REL = relative; SIT = situative; SM = subject marker. I have occasionally added glosses to examples adopted from the literature, or adjusted glosses provided in the original source to my system. High tone is marked by an acute accent; low-toned (toneless) syllables are unmarked (but notice that not all examples are consistently marked for tone in the original source). Throughout this chapter, I refer to any linguistic element that refers to a spatial location as a "locative expression". I will reserve the term "locative" for the combination of a nominal element and a specific locative marker (typically a prefix or a suffix).

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|-----|----|---------------|---------|----|------------------------|---------|----|---------------|---------|
| (2) | a. | pá | má-bokó | b. | kú | má-bokó | c. | mú | má-bokó |
| | | LOC16 | 6-arm | | LOC17 | 6-arm | | LOC18 | 6-arm |
| | | 'on the arms' | | | 'against, on the arms' | | | 'in the arms' | |
- [Luba-Kasai L31a; Kuperus & Mpunga wa Ilunga 1990: 10 (glosses added)]

As the translations in (1) and (2) show, the specific meaning expressed by a particular locative class may differ from language to language, and can usually only be determined when the semantics of the whole construction is taken into account (see e.g. Haddon 1951, Taylor 1996, 2007 for discussion). Consequently, there are few studies which attempt to provide a fine-grained semantics of locative prefixes in Bantu languages (but see e.g. Fleisch 2005, Barlew 2013, Crane, this volume). However, it is possible to identify certain general, prototypical locative meanings associated with the three locative classes.² Class 16 typically has an adessive meaning; it expresses close relative proximity, or attachment with contact, and is also used to refer to specific locations. Class 17 is the semantically least specific locative class; it denotes a general location or further relative proximity, and when used with motion verbs, it often translates as "towards" or "from". Class 18 has an inessive meaning and expresses interiority (see also Fleisch, this volume).

The locative prefixes of class 16-18 always precede the class prefix of the base noun with which they combine, as well as other "secondary" derivational prefixes, such as the diminutive or the augmentative. However, Bantu languages vary with respect to whether the so-called augment, or pre-prefix (see Halpert, this volume), of the base noun remains part of the derived locative. In Bemba, for example, this is not the case; although nouns typically take an augment in Bemba (e.g. *ingáanda*, i-n-gáanda, AUG-9-house), the augment is lost in when the locative prefix is attached (see (1)). In contrast, the base noun's augment is preserved in locatives in Herero (R30):

- | | | | | | | |
|-----|----|-------------------|----|-------------------------|----|-------------------|
| (3) | a. | pondjúwó | b. | kondjúwó | c. | mondjúwó |
| | | pu-o-n-djúwó | | ku-o-n-djúwó | | mu-o-n-djúwó |
| | | LOC16-AUG-9-house | | LOC17-AUG-9-house | | LOC18-AUG-9-house |
| | | 'at a/the house' | | 'to(wards) a/the house' | | 'in a/the house' |
- [Herero R30; Möhlig & Kavari 2008: 89; Guérois 2016: 46]

There is also variation with respect to whether locatives themselves can take an augment. In Lamba (M54), this is not possible; for example, the noun *icipuna* (i-cipuna, AUG-stool) becomes *pacipuna* (pa-cipuna, LOC16-stool, 'on the stool') in class 16, and an "augmented" locative form such as **apacipuna* does not exist (Ziervogel 1971: 371). In contrast, in Haya (JE22), class 16-18 locatives appear with their own augment; compare *ahakitooke* (a-ha-kitooke, AUG-LOC16-banana, 'on the banana'), *omukyaalo* (o-mu-kyaalo, AUG-LOC18-village, 'in the village'; Trithart 1977: 90). Grégoire (1975) concludes that locatives in Proto-Bantu included two augments, one for the base noun and one for the locative, and she suggests

² Bantu locatives are also used to refer to location in time or to express partitivity or negation (see Botne, this volume, Crane, this volume and Devos, this volume). For reasons of space, I do not discuss these meanings of locatives in this chapter.

parts" of an object, i.e. its front, back, bottom sides etc. Grégoire (1975) calls these locative expressions "restricted locatives" ("locatifs restreints"). A restricted locative is typically followed by a satellite noun which is linked to the preceding locative via the associative or comitative marker:

- (6) kú nyíma kwaa nzubú
 LOC17 9.back ASS17 9.house
 'behind the house'

[Luba-Kasai L31a; Kuperus & Mpunga wa Ilunga 1990: 41]

- (7) mu-maaso g'enjo
 LOC18-6.face ASS-9.house
 'in front of the house'

[Luganda JE15; Haddon 1951: 100 (glosses added)]

Based on Grégoire (1975), Kuperus & Mpunga wa Ilunga (1990: 39) list the following twelve basic locative relations that are typically expressed by restricted locatives in Bantu: "above, on", "below, under", "in front of", "behind", "beside", "to the right of", "to the left of", "inside", "outside", "near to", "far from" and "at X's place, chez (sic), at home".

The locative noun classes also include pronominal forms. Ružička (1959) lists numerous examples, from different Bantu languages, of locative pronouns in classes 16, 17 and 18. Compare e.g. Nyanja (N31a):

- (8) a. apa 'here'; apo 'there'; pano 'at (t)here'; paja 'yonder'; pati? 'where (at, on)?' ...
 b. uku 'thereto'; uko 'there'; konse 'everywhere'; kuno 'to here'; kodi? 'where?' ...
 c. muno 'in here'; umu 'herein'; muja 'yonder'; momwe, momo 'therein, thereupon'...

[Nyanja N31a; Ružička 1959: 605-6; 612; 619]

In addition, many Bantu languages have locative enclitics with pronominal reference (Marlo 2015, Persohn & Devos 2017):

- (9) Inká yaguuyemó.
 i-n-ká i-a-gu-ye=mó
 AUG-9-COW SM9-PST-fall-PFV=LOC18.PRON
 'A cow fell there.'

[Kinyarwanda JD61; Ngoboka 2016: 92]

While the three locative noun classes 16-18 are used with much regularity in the central Bantu domain, certain classes are no longer productive in languages outside this area. Reduced locative systems are found particularly in the J-languages. For example, class 16 is no longer used as a derivational class in Kinyarwanda (JD61) and Kirundi (JD62); Luganda (JE15) has lost productive secondary prefixes of classes 16 and 18, and Haya (JE22), Kerewe (J24), Nkore (JE13) and Nyoro (JE11) no longer have a productive class 17 prefix (Grégoire 1975: 72-3).

The J-languages also belong to the class of Bantu languages in which a fourth locative noun class exists. Locatives in this class are formed with the prefix *i-* or *e-*, and Meeussen (1967) postulates a corresponding Proto-Bantu locative noun class prefix **i* (however, Güldemann (1999a: 58) mentions **e*). In Maho's (1999: 204) words, "[t]he labelling of this particular locative class is a mess": for example, Katamba (2003) refers to it as class 23, Meeussen (1967) calls it class 24, and in Grégoire (1975), it is labelled class 25. (I adopt Grégoire's label in this chapter). Class 25 is mainly found in the Northeastern Bantu area (Zone J), where it is common with place names, in some of the Southern Bantu languages of Zone S, and in a few Northwestern languages of Zones A, B and C (Gauton 2003, Guérois 2016):⁴

(10) *i* Kigalí
 loc25 9.Kigalí
 'in Kigali'

[Kinyarwanda JD61]

(11) *e-mákethe*
 loc25-9.market
 'at the market'

[Zulu S42]

Another locative prefix, which is found exclusively in Southern Bantu (Venda, Tsonga, Northern Nguni and partly in Sotho), is the prefix *ka-* (and its cognates), which typically combines with [+human] nouns to express the meaning of "at X's homestead/village/residence" (Güldemann 1999b):

(12) *ká-m-fúndisi*
 loc-1-minister
 'at the minister's residence'

[Swati S44; Ziervogel & Mabuza 1976, via Güldemann 1999b: 167]

According to Ziervogel (1971), *ka-* is the reflex of yet another Proto-Bantu locative noun class, which he calls class 24 (but see Güldemann (1999b) for arguments against this proposal, and for discussion of two alternative hypotheses about the historical origins of *ka-* in Southern Bantu).

2.2 **The locative suffix *-(i)ni***

An alternative strategy, which is primarily attested in Eastern and Southern Bantu (Zones E, G, P and S), is locative formation by means of the suffix *-(i)ni* or one of its cognates *-(e)ng* or *-nyi*. An early proposal by Meinhof (1941/42) considers *-(i)ni* to be linked to the class 18

⁴ The locative prefix *i-* found in Northwestern Bantu languages has also been classified as class 19 (see Katamba 2003: 109 for Tuki (A601)).

locative demonstrative. Haddon (1951) suggests a relation between *-(i)ni* and the common Bantu connective *na*, 'with'. Samsom & Schadeberg (1994) propose that the suffix is the grammaticalized form of the Proto Bantu noun **ini*, 'liver', a proposal for which they credit Sacleux (1939). Adopting the latter hypothesis, Güldemann (1999a) argues that the Bantu locative suffix developed in the Northeastern Bantu region as the result of language contact with non-Bantu languages showing host-final locative marking.

Most Southern and Eastern Bantu languages which use the locative suffix no longer employ locative prefixes (Guérois 2016). For example, locative prefixes do not exist in KiVunyo-Chaga (E62b) or Sesotho (S33):

- (13) mesa-nyi
9.table-LOC
'on the table'

[KiVunyo-Chaga E62b; Moshi 1995: 31]

- (14) mo-tsé-ng
3-village-LOC
'in the village '

[Sesotho S33; Demuth 1990: 235]

However, exceptions are the Southern Bantu Nguni languages (S40), where most locatives are formed by means of the class 25 prefix *e-* and the suffix *-(i)ni* (see e.g. Van der Spuy 2014 and section 4.2), and the languages of the P30 zone, which allow the use of the prefixes of class 16-18 in addition to the locative suffix (Guérois 2016, Ngunga & Manuel, this volume):⁵

- | | | |
|--------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------|
| (15) a. e-m-z-ini
LOC25-3-village-LOC
'in the village' | b. e-m-bhéd-eni
LOC25-3-bed-LOC
'in bed' | c. o-fudw-ini
LOC-11.tortoise-LOC
'to the tortoise' |
|--------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------|

[Zulu S42; Van der Spuy 2014: 69]

- | | | |
|----------------------------------------------------------|--------------------------------------------------|------------------------------------------------------|
| (16) a. va-mú-rî-ni
LOC16-3-tree-LOC
'at the tree' | b. o-ma-básá-ni
LOC17-6-work-LOC
'at work' | c. ṁ-bíyâ-ni
LOC18-9a.stove-LOC
'in the stove' |
|----------------------------------------------------------|--------------------------------------------------|------------------------------------------------------|

[Cuwabo P34; Guérois 2016: 50; 51]

Outside Zones E, G, P and S, the locative suffix *-ni* is also used in Nyamwezi (F22), where an optional locative prefix of class 18 can be used in addition (compare e.g. *numbani*, 'at/in the house', and *munumbani*, 'in the house'; Grégoire 1975: 50).

⁵ As (15c) shows, locatives based on class 11 (and also class 14) nouns in Zulu are formed with the locative prefix *o-* (see Gauton 2003 for some discussion). Interestingly, class 17 in Cuwabo is also realized by *o-*, but I have not been able to establish if the Zulu *o-* prefix is related to the class 17 marker.

2.3 Prepositional locatives

As discussed in Guérois (2016), many Northwestern Bantu languages lack productive locative morphology, and locative expressions are derived by means of prepositions. For example, in Mongo (C60), the preposition *ndá* is used indiscriminately to express different locative meanings:

- (17) a. *nd' étáfe* 'on the branch'
b. *ndá loulú* 'in the bedroom'
c. *ndá ntsína* 'at the basis'

[Mongo C60; Hulstaert 1966: 178; via Guérois 2016: 49]

A locative use of the prefix *nga-*, which is typically analyzed as a preposition (see e.g. Halpert 2015), is attested in the Nguni languages (S40). For example, when *nga-* is added to an existing locative in Southern Ndebele (S407), the resulting expression has a more specific, unambiguously inessive, meaning (Fleisch 2005):

- (18) *ng-e-ndl-ini*
LOC-LOC25-9.house-LOC
'in(side) a house' (compare *endlini*, 'at, to, in a house')

[Southern Ndebele S407; Fleisch 2005: 141]

Note also that many recent studies analyze the locative markers of some of the Nguni (S40) and Sotho-Tswana (S30) languages as prepositional elements. I discuss the details of this analysis in section 4.2.

3. Locative agreement and concord

3.1 Locative concord with attributive modifiers

Bantu locatives can control agreement on locative-internal modifiers ("locative concord"), but they can also agree with the basic class of the noun from which the locative is derived ("noun concord"; "inner concord"). This phenomenon, known as "alternative concord" (Stucky 1978), is illustrated with a possessor modifier in (19)-(21). In the (a)-examples, the possessor agrees with the locative in the locative's respective noun class; the (b)-examples illustrate that noun concord is also possible in each case:

- (19) a. *pa-nyanjá* *p-ánga* b. *pa-nyanjá* *y-ánga*
LOC16-9.lake 16-my LOC16-9.lake 9-my
'on my lake' 'on my lake'
- (20) a. *ku-nyanjá* *kw-ánga* b. *ku-nyanjá* *y-ánga*
LOC17-9.lake 17-my LOC17-9.lake 9-my
'at my lake' 'at my lake'

are the result of the modifier either providing information about the base noun, or about its location. These possibilities follow from the availability of two different attachment sites for the modifier inside the locative phrase (see section 4.1 below).

Locative agreement in class 16, 17 or 18 is independent of whether the locatives themselves are marked by means of locative prefixes. In Zone G-languages such as Swahili (G41-43), Shambala (G23) or Bondei (G24), locatives are formed by means of the suffix *-(i)ni*, and there are no locative noun class prefixes. Nevertheless, the agreement markers on modifiers reflect the three class distinctions (Grégoire 1975: 69):

- (24) a. nyumba-ni p-angu pa-zuri
 9.house-LOC 16-my 16-good
 b. nyumbani kw-angu ku-zuri
 9.house-LOC 17-my 17-good
 c. nyumba-ni mw-angu m-zuri
 9.house-LOC 18-my 18-good
 d. nyumbani *y-angu *n-zuri
 9.house-LOC 9-my 9-good
 'in/at my good house'

[Swahili G41-43; Carstens 1997: 402]

Swahili does not license inner concord, as (24d) illustrates. According to Grégoire (1975: 69), this is generally the case in Zone G-languages that use a variant of the suffix *-(i)ni*; in contrast, locatives formed with this suffix in the Zone E-languages allow inner concord on modifiers (cf. Kamba (E55) *nyumbani yao*, 'in their house'). In many Southern Bantu languages, inner concord is in fact the only option with derived locatives, a point to which I return in section 4.2.

Even though alternative concord is attested in many Bantu languages, there is considerable variation as to what kind of modifiers license what kind of concord, and it is not always the case that alternative concord is possible with every modifier in a language. For example, in Luba-Kasai (L31a), quantifiers and possessives show alternative concord, but adjectives can only agree with the inner noun (Kuperus & Mpunga wa Ilunga 1990). In contrast, adjectives in Kinyarwanda can agree with either the locative or the base noun, but with possessors, inner concord is the norm, and in classes 17 and 18, locative concord is restricted to relations of inalienable possession (Zeller & Ngoboka 2018; see also Caha & Pantcheva 2020 for Shona). Numerals tend to allow only inner concord, but in Grégoire (1975), one finds the following example from Sanga (L35):

- (25) mu-ma-zubo mu-bidi
 loc18-6-house 18-two
 'in two houses'

[Sanga L35; Grégoire 1975: 24-5; glosses added]

Agreement on a modifier also depends on its syntactic position in the NP. For example, when demonstratives in Luba-Kasai follow the locative, they license alternative concord, but

when they appear between the locative marker and the noun, only inner concord is possible, while locative concord is the only option when the demonstrative is placed before the locative (Kuperus & Mpunga wa Ilunga 1990: 25-6).

3.2 Locative agreement with predicates

Locatives can also agree with verbs and other predicates:

- (26) a. Pa-m-sikǎ-pa pá-bádw-a nkhonya.
 LOC16-3-market-DEM16 SM16-be.born-FV 10.fist
 'At this market a fight is going to break out.'
- b. Ku-mu-dzi ku-na-bwér-á a-lěndo.
 LOC17-3-village SM17-PST-come-FV 2-visitor
 'To the village came visitors.'
- c. M-nkhalǎngo mw-a-khal-á mí-kǎngo.
 LOC18-9.forest SM18-PRF-remain-FV 4-lion
 'In the forest have remained lions.'

[Chichewa N31b; Bresnan & Kanerva 1989: 9]

The examples in (26) are locative inversion constructions (see Hamlaoui, this volume), in which the locative is realized in the pre-verbal subject position, while the thematic subject appears post-verbally. The locative subjects in (26) trigger locative noun class agreement on the verb, realized by the subject markers of class 16-18. There is no equivalent of "inner concord" in the domain of predicate agreement with locatives: In contrast to modifiers, which can agree with the noun class of the base noun, predicate agreement is always with the locative, never with the inner noun (Grégoire 1975, Stucky 1978), even if the locative subject includes a modifier that shows inner concord (Bresnan & Kanerva 1989: 39, note 57).

Section 3.1 demonstrated that locative concord in Bantu languages such as Kinyarwanda does not reflect locative noun class distinctions, but is expressed by one "generic" locative class. A similar pattern of generic locative agreement is observed with predicates. In Kinyarwanda and other languages of the J-group, and also in Sukuma (F21) and Sumbwa (F23), locative agreement on predicates is always in class 16, regardless of the noun class of the locative (Grégoire 1975, Maho 1999, Zeller & Ngoboka 2018):

- (27) a. A-ha-kitooke há-ka-bá ha-li ha-lúngi
 AUG-LOC16-7.banana SM16-PST-be 16-be 16-good
 'On the banana was good.'
- b. O-mu-kyaaló há-ka-bá ha-li ha-lúngi
 AUG-LOC18-village SM16-PST-be 16-be 16-good
 'In the village was good.'

c. Enja y'énjú há-ka-bá ha-li ha-lúŋgi
 LOC25.outside ASS25.house SM16-PST-be 16-be 16-good
 'Outside of the house was good.'

[Haya JE22; Trithart 1977: 95; glosses added]

An invariant locative subject prefix (class 17) also appears with preverbal locatives in Lozi (K21) and in the Nguni and Sotho-Tswana languages (Marten et al. 2007). However, in the latter two language groups, this prefix is generally not analyzed as an agreement marker. I discuss this point in section 4.2.

Section 3.1 also showed that locative concord is even attested in languages in which locative noun class prefixes no longer exist. Locatives in these languages also exhibit noun class agreement with predicates. The copula in the Swahili example in (28) can agree with the locative subject in either class 16, 17 or 18 (depending on the intended meaning), even though the locative is not marked for noun class:

(28) Nyumba-ni ku-/pa-/m-na watu wengi
 9.house-LOC SM17-/SM16-/SM18-be 2.people 2.many
 'In/at the house are many people.'

[Swahili G41-43; Carstens 1997: 402]

In many E- and G-languages, where locatives are typically formed with the suffix *-(i)ni*, certain nouns can function as locative expressions without any formal marking. Even these expressions can nevertheless trigger locative agreement with predicates. In the following example from Kivunjo-Chaga (E622c), the bare class 9 subject noun *sangazra*, 'market', has locative reference and agrees with the verb in class 16:

(29) Sangazra ha-wozre soko na malruwu
 9.market SM16-have 9.beans and 6.bananas
 'At the market has beans and bananas.'

[Kivunjo-Chaga E622c; Moshi 1995: 131]

The examples above illustrate agreement between predicates and locative subjects. In many Bantu languages, predicates can also agree with locative objects:

(30) Ku-Lilongwe n-a-ku-ziw-a
 LOC17-Lilongwe SM1SG-PRS-OM17-know-FV
 'Lilongwe I know it (there).'

[Nsenga N41; Marten et al. 2007: 263]

(31) N-za-ha-chi-m-nka Stella kitabu haja
 SM1SG-PRF.DJ-OM16-OM7-OM1-give 1.Stella 7.book DEM16
 'I gave Stella a book there.'

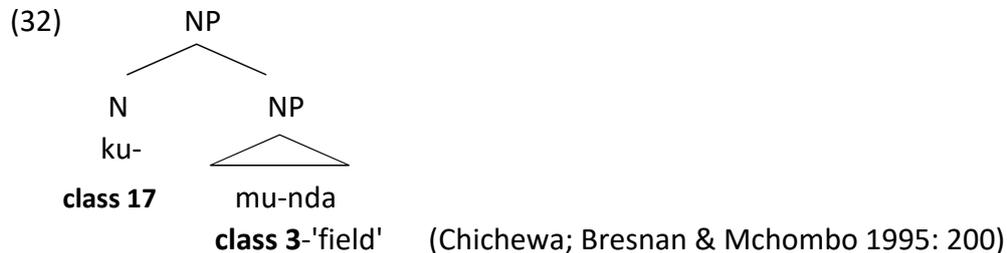
[Sambaa G23; Riedel & Marten 2012: 282]

Locative object agreement is more restricted than agreement with locative subjects and not possible in every language (Marlo 2015). Bantu languages without locative object markers include e.g. Lozi (K21), Chasu (G22b), Yeyi (R41), and the languages of the Nguni group (S40) (Marten et al. 2007). However, as observed in Marten et al. (2007) and Zeller & Ngoboka (2015), a cross-Bantu generalization seems to be that languages with a full set of locative subject markers of class 16-18 always have locative object markers.

4. The syntax of locatives

4.1 Locatives as nominal categories

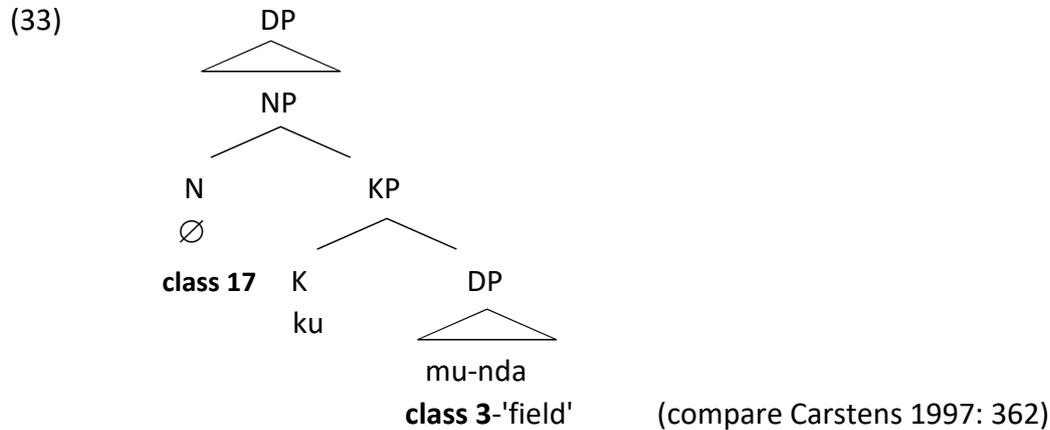
It seems uncontroversial that locatives that are derived by means of locative noun class prefixes are nominals. Consequently, their phrasal projection must be analyzed as a noun phrase (NP) or a determiner phrase (DP). Bresnan & Mchombo (1995) apply a range of lexical integrity tests, such as gapping, conjoinability etc., to Chichewa locatives, and demonstrate that locative noun class prefixes are syntactically independent elements. Consequently, they analyze these prefixes as locative nouns which project their own NPs and take the projection of the base noun as the complement. A locative NP/DP such as Chichewa *kumunda*, 'to the field', therefore consists of two nominal layers (see also Myers 1987, Bresnan 1994, Marten 2012, among others; but see also Msaka 2019 for an alternative analysis of Chichewa locatives as prepositional phrases):



The syntactic representation in (32) explains that locatives in many Bantu languages behave like ordinary NPs with respect to subject and object agreement, can occur in subject and object positions and undergo syntactic processes such as NP-movement. Furthermore, because both NP-projections in (32) can serve as attachment sites for locative-internal modifiers, (32) explains why we find both inner concord (when the modifier is adjoined to the lower NP) and locative concord (modifier adjoined to the higher NP). Assuming that post-nominal modifiers are right-adjoined to NP, (32) also derives the generalization (noted in section 3.1) that a modifier showing noun concord can never follow a modifier which agrees with the locative noun. Finally, since the higher NP-layer in (32) renders the lower NP inaccessible for external agreement, it follows from (32) that only locative concord, and no "inner concord", is possible with predicates (see section 3.2).

One problem with the representation in (32) is that the locative noun combines directly with another NP. This is unexpected, as nouns in Bantu are typically connected to other NPs by means of a linking element such as the associative marker. A proposal which addresses

this problem, but maintains the spirit of the syntax in (32), is put forward in Carstens (1997).⁶ Carstens argues that locative nouns in Bantu are phonetically null and that the locative noun class markers are exponents of the head of a Kase-projection KP on top of the projection of the base noun. (33) shows the structure of the Chichewa locative *kumunda* according to Carstens' proposal (details omitted):⁷



In (33), the role of the linker element between the locative noun and the base noun's projection is fulfilled by the locative class marker. Note that locative noun class is still encoded on the locative noun; the morphological form of the prefix in K is determined via agreement with this null locative.

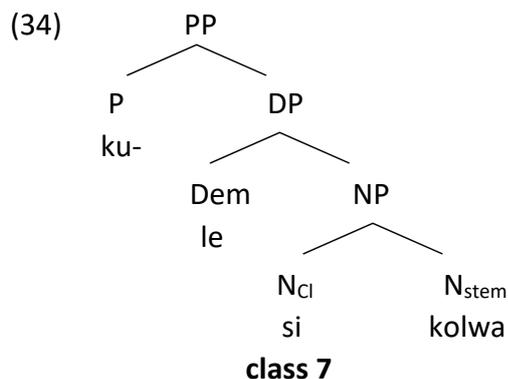
According to Carstens (1997), the idea that locative nouns in Bantu are phonetically null can also account for the structure of locatives formed by means of the suffix *-(i)ni*, which Carstens analyzes as another Kase-element. She suggests that locatives formed with this suffix are compounds consisting of the null locative noun and a complex nominal stem formed by attaching the locative suffix to the base noun, which therefore does not project. The absence of the lower NP-projection then explains why locative modifiers in Zone G-languages like Swahili only allow locative concord (see (24d) above). However, this analysis raises questions about the syntactic analysis of locatives in the P30-languages, which display both locative prefixes and the suffix *-(i)ni* (see Guérois 2016 and section 2.2). In addition, the claim that the base noun does not project in languages with locative suffixes does not explain why modifiers in some languages from Zone E license inner concord with *-(i)ni*-locatives, as observed by Grégoire (1975: 69) and noted in section 3.1. Alternative analyses of the *-(i)ni*-suffix that offer potential solutions to some of these problems are found in Taraldsen (2020) and Fuchs & van der Wal (to appear).

⁶ See Caha & Pantcheva (2020) for an alternative approach to this problem, which represents Bantu locative prefixes as specifiers of a silent Place-head which selects the projection of the base noun.

⁷ Note that in Carstens (1997), the highest (extended) projection of a noun is a DP, i.e. the maximal projection of the functional category D (determiner).

4.2 Locatives as prepositional categories

In contrast to locatives in the languages of the Central and Northeastern Bantu region, locatives in the Nguni (S40) and the Sotho-Tswana groups (S30) of Southern Bantu are typically not analyzed as nominals. Rather, most contemporary studies treat them as PPs. For example, (34) is the representation of the Swati locative *kulesi kolwa*, 'at this school', proposed in Marten (2010):



According to Marten (2010), (34) is the outcome of a historical process of de-grammaticalization, which Marten calls the "Great (SiSwati) locative shift". During the Great locative shift, locative nouns disappeared from the Nguni lexicon, and the locative noun class prefixes were re-analyzed as prepositions. Carstens (1997) proposes a similar historical path for the class 16, 17 and 18 locative markers that are still synchronously attested in Tswana (see (36) below). A different diachronic scenario is described in Grégoire (1975: 98), who argues that the class 17 locative prefix found in Sotho-Tswana and Nguni is a remnant of the form *kúdí, 'où est', which is used to derive locatives from augmentless nouns in some languages (see section 2.1). According to this view, the prepositional locative marker *kú-* would in fact be historically derived from a class 17 (relative?) agreement marker, and not from a locative noun class prefix. Creissels (2011) provides support for Grégoire's proposal by showing that the tonal properties of Tswana locatives are incompatible with an analysis of the locative markers as reflexes of Proto-Bantu locative noun class prefixes.

Regardless of the particular diachronic analysis of the Nguni and Sotho-Tswana locative markers, the view that locatives in Nguni and Sotho-Tswana are prepositional categories has been articulated by many authors and is by now widely accepted in the literature (see Marten 2010 for Swati; Buell 2007, 2012, Van der Spuy 2014 for Zulu; Demuth 1990, Baker 1992 for Sotho; Carstens 1997, Creissels 2004, 2011 for Tswana). It is motivated by a number of important differences between locatives in these Southern Bantu language groups and locatives elsewhere in Bantu. For reasons of space, I cannot review all these differences here (the reader is referred to the abovementioned studies and Zeller & Ngoboka 2018 for detailed discussion), but in the following paragraphs, I focus on one of the main arguments in favor of the analysis in (34), viz. the absence of locative agreement and concord in Nguni and Sotho-Tswana.

Apart from a few important exceptions (to which I return below), locatives in most Nguni and Sotho-Tswana languages do not allow locative concord. Agreement can only be with the base noun:

- (35) a. e-dolôbh-eni e-li-khulu
 LOC25-5.town-LOC REL-5-big
 b. *e-dolôbh-eni o-ku-khulu
 LOC25-5.town-LOC REL-17-big
 'in the big town'

[Zulu S42; Van der Spuy 2014: 64]

The impossibility of locative concord is consistent with the PP-analysis in (34). Since modifiers showing locative concord must be attached to a projection of the locative noun (see section 4.1), the absence of such a projection entails that modifiers in prepositional locatives cannot show locative concord.

There is also no locative agreement with predicates. Locative object markers seem to be absent in Nguni and Sotho-Tswana (but see below), and preverbal locatives also do not trigger agreement with verbs or adjectives. The latter point can be illustrated by the locative inversion examples from Tswana (S31) in (36). In Tswana, locatives are formed with the suffix *-ng*; in addition, Tswana has (optional) locative markers that resemble the Proto-Bantu locative prefixes of class 16, 17 and 18. But regardless of which locative marker is chosen, the verbs in (36) are prefixed with the invariant subject marker *gó-* of class 17:

- (36) a. Fá-se-tlharé-ng gó-émé ba-símané.
 LOC16-7-tree-LOC SM17-stand.PRF 2-boys
 'By the tree stand the boys.'
 b. Kó-Maúng gó-tlá-ya roná maríga.
 LOC17-Maung SM17-FUT-go we winter
 'To Maung we shall go in winter.'
 c. Mó-le-fátshé-ng gó-fúla di-kgomó.
 LOC18-5-country-LOC SM17-graze 10-cattle
 'In the country are grazing the cattle.'

[Tswana S31; Demuth & Mmusi 1997: 8-9]

A class 17 subject marker also appears with all types of preverbal locatives in the Sotho varieties (Demuth 1990, Machobane 1995, Zerbian 2006), and in Nguni (Buell 2007, 2012, Marten 2010). Of course, the use of an invariant locative subject marker cannot by itself be taken as evidence that locatives in Sotho-Tswana and Nguni do not trigger locative agreement – recall from section 3.2 that in languages such as Sukuma, Kinyarwanda or Haya, an invariant locative subject marker expresses locative agreement between a predicate and any locative subject, regardless of the locative's specific noun class (Zeller & Ngoboka 2018). However, there is an important difference between the invariant locative subject markers of these latter languages and the class 17 subject marker found in Sotho-Tswana and Nguni. As demonstrated by Bresnan & Kanerva (1989), in languages with true

locative subject agreement, a locative subject marker can establish pronominal reference to an implicit location in pro-drop contexts. For example, when the locative subject of the Chichewa example in (37a) is dropped, the sentence is interpreted with reference to an implicit interior location:

- (37) a. M-nkhalǎngo mw-a-khal-á mí-kângo
 LOC18-9.forest SM18-PRF-remain-FV 4-lion
 'In the forest have remained lions.'
- b. Mw-a-khal-á mí-kângo
 SM18-PRF-remain-FV 4-lion
 'There (inside some place) have remained lions.'
- [Chichewa N31b; Bresnan & Kanerva 1989: 9, 11]

Importantly, Ngoboka (2016) and Zeller & Ngoboka (2018) show that the same possibility exists with the invariant class 16 subject marker *ha-* in Kinyarwanda. Like (37b), (38b) can be interpreted with reference to an implicit location, which suggests that *ha-* in Kinyarwanda has the same status as the locative subject markers in Chichewa:

- (38) a. Mu muhaánda hahagaze Yohaáni.
 mu mu-haánda ha-hágarar-ye Yohaáni
 LOC18 3-road SM16-stand-PVF 1.John
 'It is John who is standing in the road.'
- b. Hahagaze Yohaáni.
 ha-hágarar-ye Yohaáni
 SM16-stand-PVF 1.John
 'It is John who is standing (there).'
- [Kinyarwanda JD61; Ngoboka 2016: 314f.]

However, in contrast to Kinyarwanda *ha-*, the invariant class 17 subject markers of Sotho-Tswana and Nguni have no referential properties. When the preverbal locatives in (36) are dropped, the locative meaning completely disappears, and the sentences are interpreted as so-called impersonal constructions, with no specific location implied (Demuth & Mmusi 1997, Creissels 2011):

- (39) a. Gó-émé ba-símané.
 SM17-stand.PRF 2-boys
 'It's the boys that stood up.'
- b. Gó-tlá-ya roná maríga.
 SM17-FUT-go we winter
 'It's we who shall go in winter.'
- c. Gó-fúla di-kgomó.
 SM17-graze 10-cattle
 'It's the cattle that are grazing.'

[Tswana S31; Demuth & Mmusi 1997: 8-9]

The impossibility of an anaphoric interpretation of the class 17 subject marker in pro-drop contexts has also been noted for other Sotho-Tswana varieties and for Nguni (see e.g. Buell 2007, 2012, Van der Spuy 2014 for Zulu; Marten 2010 for Swati; Demuth 1990, Baker 1992 for Sesotho). It has been put forward as evidence that the invariant class 17 marker in these Southern Bantu languages no longer functions as a true locative subject marker with referential or agreement properties, but only has an expletive function. Indeed, the class 17 subject marker is used in this function with atmospheric predicates, in raising and in existential constructions in Nguni and Sotho-Tswana (see e.g. Buell 2012 for Zulu; Demuth 1990 for Sesotho; Marten 2010 for Swati):

- (40) Hó-a-chés-a ká-tlú-ng.
 SM17-PRS-hot-FV LOC-house-LOC
 'It's hot inside the house.'

[Sesotho S33; Demuth 1990: 242]

- (41) Ku-ne-zi-hlahla eziningi lapha.
 SM17-with-8-plants 8.REL.much here
 'There are a lot of plants here.'

[Zulu S42; Buell 2012: 16]

Consequently, locative inversion constructions in the Sotho-Tswana and Nguni languages cannot be analyzed on a par with locative inversion constructions in languages such as Kinyarwanda or Chichewa. While the preverbal locatives in the latter languages are grammatical subjects which trigger locative agreement with their verbs, locative inversion constructions such as those in (36) are expletive constructions with topicalized locatives, which are not in the subject position, but left-adjoined to a higher functional projection (see e.g. Baker 1992, Buell 2007, Creissels 2011; but see also Salzmann's (2011) critical evaluation of the arguments against the view that preverbal locatives in the Sotho-Tswana and Nguni languages are subjects). This analysis explains why the sentences in (39), where the locative is dropped, no longer have a locative interpretation, and it is consistent with the view that locatives in these language groups are not NPs/DPs, but PPs (as is well-known, locative PPs can function as frame-setting adjuncts in many languages).

However, before closing this section, it should be noted that not all empirical properties of Nguni and Sotho-Tswana unequivocally support the PP-analysis shown in (34) (see also Salzmann 2011). A first problem is raised by the fact that satellite nouns that combine with restricted locatives in these languages do show locative concord of the associative marker (always in class 17):

- (42) a. phakathi kw-e-n-dlu b. e-cele-ni ku-ka-malume
 LOC16.inside 17-ASS.AUG-9-house LOC25-5.side-LOC 17-ASS-1a.uncle
 'inside the house' 'next to uncle'

[Zulu S42; Ziervogel et al. 1985: 141 (glosses added)]

- (43) a. morago ga
 LOC18.behind ASS17
 'behind'
- b. godimo ga
 LOC17.on-top-of ASS17
 'on top of'
- [Tswana S31; Creissels 2011: 37 (glosses added)]

Second, Machobane (1995) shows that possessors and quantifiers in Sesotho (S33) license locative concord in class 17 (see also Neumann (1999) for Kgalagadi (S311)):

- (44) a. Mo-tse-ng há-Masúpha hó-na-lé-líbetsa.
 3-village-LOC ASS17-Masúpha SM17-be-with-8.firearms
 'At Masupha's village there are firearms.'
- b. Mo-tse-ng hó-hle hó-tlets-é lipampíri.
 3-village-LOC 17-all SM17-full-PRF 10.papers
 'All over the village is full of papers.'
- [Sesotho S33; Machobane 1995: 118]

Finally, in contrast to the Sotho varieties and Nguni, Tswana and Kgalagadi have locative object markers:

- (45) ke a gó itse
 SM1SG DJ OM17 know
 'I know it (there).'
- [Tswana S33; Marten et al. 2007: 330]

These data cast some doubt on the analysis of locatives as PPs. Clearly, locatives in Sotho-Tswana and Nguni differ in many respects from locatives in Bantu languages such as Chichewa, but they also seem to have retained some of the nominal characteristics of locatives. As far as I am aware, there currently exists no analysis that can explain these characteristics as well as the differences between Sotho-Tswana/Nguni and Chichewa-type locatives discussed above that follow from the PP-analysis.

5. The thematic role and grammatical function of locatives

Locatives in Bantu can act as internal or external arguments of their predicates. In (46), the locative saturates the goal-theta role of the verb; in (47), it is the thematic subject argument of the causative (see also (30) in section 3.2, where the locative is the internal theme argument of the verb 'know'):

- (46) Umugóre y-oohere-je umubooyi kw-iisóko.
 1.woman SM1-send-ASP 1.cook LOC17-market
 'The woman sent the cook to the market.'
- [Kinyarwanda JD61; Kimenyi 1976: 90]

(47) I Bagdad haanteera ubwóoba
 i Bagdad ha-n-téer-a u-bu-óoba
 LOC25 9.Baghdad SM16-OM1SG-cause-FV AUG-14-fear
 '(In) Baghdad scares me.'

[Kinyarwanda JD61; Zeller & Ngoboka 2018: 82]

Locatives can also combine with nouns, or act as predicates and agree with their subjects:

(48) u-mu-ana mu-mu-shi
 AUG-1-child LOC18-3-village
 'the child in the village'

[Bemba M42; Givón 1969: 88 (glosses added)]

(49) pene e-mo-tafole-ŋ
 9.pen SM9-LOC18-table-LOC
 'the pen is in (the drawers of) the table'

[Kgalagadi; S311; Neumann 1999: 127]

When locatives are used as adjuncts, they can be freely ordered with respect to other adjuncts, such as temporal adverbs:

(50) a. A-li-sema hayo jana bunge-ni...
 SM1-PST-say DEM6 yesterday parliament-LOC
 'He said this yesterday in parliament...'
 b. A-ki-jibu swali bunge-ni jana...
 SM1-SIT-answer 5.question parliament-LOC yesterday
 'When she answered a question in parliament yesterday...'

[Swahili G41-43; Riedel & Marten 2012: 280]

However, not all Bantu languages allow the productive use of locatives as adjuncts. For example, locatives in Kinyarwanda cannot simply combine with any predicate, as Jerro (2016) observes:

(51) Habimana a-ri ku-vug-*(ir)-a mu nzu
 Habimana SM1-be INF-talk-APPL-FV LOC18 9.house
 'Habimana is talking in the house.'

[Kinyarwanda JD61; Jerro 2016: 46]

(51) shows that the locative cannot be added to the bare verb *vug-*, 'talk'; for this to be possible, an applicative marker must be added. Jerro (2016) suggests that locatives in Kinyarwanda can only function as arguments and that predicates which do not lexically select locative arguments therefore require the applicative for the locative to be licensed.

The idea that applicative morphology introduces a locative as an argument may also explain the semantic contrast between (52a) and (52b), in which the applicative has been added:

- (52) a. N-de-ly-a mu-mu-putule
 SM1SG-PRS-eat-FV LOC18-3-room
 'I'm eating in the room.'
- b. N-de-li-il-a mu-mu-putule
 SM1SG-PRS-eat-APPL-FV LOC18-3-room
 'I'm eating in the room.'

[Bemba M42; Marten & Mous 2017: 8]

Marten & Mous (2017) note that the sentence in (52a) has neutral focus, whereas the locative applicative in (52b) places narrow focus on the locative (see also Creissels (2004), who observes the same focalising effect with locative applicatives in Tswana). Given that the VP is the domain of focus in many Bantu languages, the contrast between (52a) and (52b) may be a consequence of the fact that the locative in (52b) is a VP-internal argument, while it is a VP-external adjunct in (52a).

In Tswana (S31) and Zulu (S42), a locative added to a non-applied verb of motion specifies the location of the event, whereas it expresses directionality when added to the applied form of the verb (Creissels 2004, Taylor 2007). Since directional PPs behave like arguments in many languages, while PPs expressing location show adjunct behavior (see e.g. Hoekstra & Mulder 1990), this semantic difference can again be derived from the idea that the addition of an applicative turns a locative adjunct into an argument.

However, other semantic effects of locative applicatives are harder to explain in terms of the argument-adjunct distinction. For example, in a number of Bantu languages (e.g. in Luganda (JE15), Shona (S10) and Tswana (S31)), a locative combining with the bare form of a verb of motion is interpreted as the *source* of the movement. However, when the applicative is added, the locative denotes the *goal* of the movement (see Creissels 2004, Jerro 2016, Marten & Mous 2017 and Fleisch, this volume for discussion and different analyses of this fact).

In a certain type of double object construction in Kinyarwanda, the first object-argument of the verb is not formally marked as a locative, but still denotes a location:

- (53) Umugóre y-oohere-jé=ho isóko umubooyi
 1.woman SM1-send-ASP=LOC16.PRON market 1.cook
 'The woman sent the cook to the market.'

[Kinyarwanda JD61; Kimenyi 1976: 90]

Sentences such as (53) have been called "locative shift" (Ngoboka 2016) or "locative applicative" constructions (Kimenyi 1976, Zeller & Ngoboka 2006). (53) expresses the same thematic relations as (46) above, but the locative prefix on the Goal has disappeared, and a

locative enclitic is added instead.⁸ The Goal-NP/DP has been "shifted" into the primary object position.

Another construction which licenses a locative interpretation of an NP/DP not formally marked as locative is known in the literature as semantic locative inversion (Buell 2007, Zeller 2013, Hamlaoui, this volume):

- (54) a. Twana tûûgî i-tû-thij-ag-a kanisa-ni.
 13.children 13.smart FOC-SM13-go-HAB-FV 12.church-LOC
 b. Kanisa i-ka-thij-ag-a twana tûûgî.
 12.church FOC-SM12-go-HAB-FV 13.children 13.smart
 'The smart children go to the church.'

[Tharaka E54; Buell 2007: 113]

The locative *kanisani*, 'to the church', is marked by the suffix *-ni* in (54a) and appears in postverbal position. However, in (54b), the bare NP/DP *kanisa* is located in the preverbal subject position, and the logical subject appears postverbally. In this example, the preverbal subject *kanisa* can still be interpreted as a locative, even though the locative suffix has disappeared, and the subject agrees with the verb in its (non-locative) noun class. In Zeller (2013), it is suggested that the locative interpretation of subjects in semantic locative inversion constructions is licensed through a predication relation between the subject NP/DP and the whole vP, which includes the verb and all of its arguments, including the thematic subject. According to this account, the proposition denoted by the vP is expressed as a property of the preverbal NP/DP, which as a result is interpreted as a location (compare English *The garden is swarming with bees*). This analysis of the locative subject as the highest-ranking argument of the clause can also be extended to "formal" locative inversion constructions of the Chichewa-type, where the subject is morphologically marked as a locative and consequently shows locative agreement with the verbal head of the vP (see Zeller 2013 for discussion).

6. Conclusion

This chapter has provided an overview of the morphological, syntactic and semantic properties of locatives in Bantu. These properties are relatively well documented, both with respect to specific languages, and in the Bantu family more generally. However, there are still many open questions regarding the theoretical analysis of these properties, several of which were identified in the preceding sections. These questions concern, for example, the syntactic representation of locatives in languages with locative suffixes, restrictions on the availability of alternative concord with certain modifiers, the conditions that determine whether or not a language licenses locative object markers, or the categorial status of locatives in the Sotho-Tswana and Nguni languages. Particularly interesting challenges are raised by the variation that has been observed among closely related Bantu languages.

⁸ In (53), this clitic is attached to the verb, but it can also appear between the Goal-DP and the Theme. See Ngoboka (2016) for a syntactic analysis of these two word order alternatives.

While some of this variation might be the result of historical accidents, it is also possible that some of the observed differences are systematic and reducible to different settings of morpho-syntactic micro-parameters (cf. Marten et al. 2007, Zeller & Ngoboka 2015, 2018). The latter possibility already informs much current empirical and theoretical work on locative systems in the Bantu languages, and the results of this work promise to be highly relevant for comparative linguistic theory and our understanding of the nature of grammatical variation in natural language.

7. References

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