Prefixing a prefix – a study of nominal pre-prefixation in Kisi and Manda

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Kisi (G.67) and Manda (N.11) are languages spoken in southwestern Tanzania which are rich in examples of additive prefixing. Additive prefixing refers to the addition of one prefix to an already existing prefix on a noun. For example, /kamutu/ /ka-mu-tu/ 12-3-head 'small head' (Kisi).[1] This already existing prefix I refer to as the base prefix, and the additional prefix I refer to as the added prefix, i.e. (added prefix)—(base prefix)—(base stem) e.g. *ka-mu-tu*.

The types of additive prefixing found in Kisi and Manda can be categorised according to whether the added prefix changes the class affiliation of the noun or not. These two categories are described in sections 1 and 2.

1. Re-affiliation of noun class

In both Kisi and Manda, there are three types of additive prefixing which re-assign a noun to a different class from that of its base prefix. These are described in the following sub-sections. For each of these three types, the following can be observed:

- The added prefix is (nearly always) obligatory for the noun to be well-formed and have the intended referent.
- Only nouns belonging to certain classes may be re-assigned to another class by these types of additive prefixing.
- The added prefix is from the nominal series of prefixes.

1.1 Idiosyncratic re-affiliation of noun class and lexicalisation of the base prefix

Lexicalisation of a base prefix refers to the situation where a base prefix and base stem have been re-analysed to form a new stem which can no longer be parsed. The noun prefix of this re-analysed stem is therefore an example of an additive prefix, at least diachronically. For re-affiliated nouns, agreement follows the added prefix. Agreement following the base prefix is unacceptable except in the rare situation where the base prefix and base stem exist as a well-formed noun with the same referent synchronically.[2] In the data set, there is only evidence of nouns with base prefixes from classes 3, 9, and 11 being re-affiliated. The added prefixes are the nominal prefixes from classes 5/6, 7/8, 11, 12/13, and 14.

A way to discover which nouns have been created by lexicalisation of a base prefix is to look for historical clues as to an original form of the stem. These clues can be found by looking for a Proto-Bantu cognate (1a),[3] a cognate in a related language or dialect (1b),[4] or a root from which the noun may have been derived (1c), as seen below.[5]

1a)	li-ⁿgaka	'pangolin'	(Kisi and Manda)	*kákà	'pangolin'	(Proto-Bantu)
1b)	li-ⁿdafi	'branch'	(Lituhi Manda)	lu-tafi	'branch'	(Manda)
1c)	ki-ⁿdaᵐba	'peace'	(Kisi)	ku-laᵐba	'to placate'	(Kisi)

Below are three theories for what might motivate this type of re-affiliation:[6]

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[1] ANT anterior, DEM demonstrative, DIST distal, DP demonstrative prefix, EXCL exclusivity prefix, EP enumerative prefix, FV final vowel, NP nominal prefix, OP object prefix, PL plural, PRO pronoun, PROG progressive, PROX proximal, PST₂ far past, REL relative prefix, SG singular, SP subject prefix.

[2] For example, in the following anthropomorphism: /liᵐbuɲali likɪᵐbili/ 'the cat has run away', /ᵐbuɲali akɪᵐbili/ 'Cat has run away'. There are some re-affiliated nouns where the new stem (base prefix plus base stem) resembles a fully formed noun with a semantically unrelated referent, e.g. Manda has both /liᵐbelele/ 'sheep' and /ᵐbelele/ 'fish sp.'.

[3] Bastin, Yvonne, André Coupez, Evariste Mumba, and Thilo C. Schadeberg (eds). 2003. Bantu lexical reconstructions 3. Tervuren: Royal Museum for Central Africa. Available online at: http://linguistics.africamuseum.be/BLR3.html. Proto-Bantu reconstructions are marked by *.

[4] The Manda data used in this paper is from the dialect spoken in Nsungu except where indicated otherwise by the name of another village. For example, in 1b /liⁿdafi/ is marked as being 'Lituhi Manda' as it is the word for 'branch' in the dialect spoken in Lituhi. In the same example, /lutafi/ is marked only as 'Manda' as it is from the reference dialect spoken in Nsungu.

[5] The prefixes have been separated from the synchronic stem by a hyphen to show the shape of the affiliating class prefix and stem.

[6] My thanks to Thilo Schadeberg for making me aware of these theories.

1. As a base prefix lost its syllabicity and became impossible to extract from the stem, the noun was re-assigned to a class with a canonical CV-shaped prefix. Nouns with a desyllabified base prefix ^NC, such as /liⁿgaka/ 'pangolin', (Kisi) fit this theory, but nouns with a CV-shaped base prefix like /kaludoⁿgulela/ 'sunbird' (Manda) do not.

2. The added prefixes were once derivational (augmentative or diminutive) prefixes, and the derived noun has since replaced the original noun in use. Nouns like /kaⁿtuⁿdulu/ 'small bird sp.' (Manda) fit this theory, since /ka-/ is a diminutive prefix in Manda. However, since class 14 /βu-/ is not a diminutive prefix in Kisi or Manda, nouns like /βuⁿkukutululu/ 'mushroom sp.' (Kisi) do not fit this theory.

3. The noun was borrowed from another language and re-affiliated to an appropriate noun class. Re-affiliation may have been motivated by the difficulty of extracting the stem-initial consonant (as in theory 1) or due to semantic motivations. For example, it is possible that the class 5 Manda word /liᵐbuɲali/ 'cat' was borrowed from Matengo *mbunyâli* 'cat' (class 9).[7] It may have been re-assigned to class 5 to put it in the same class as /lipusi/ which is another Manda word for 'cat', or because most animals are found in class 5 in Manda.

1.2 Augmentative and diminutive formation

In Manda, all class 3, 4, 9, and 10 nouns undergo augmentative and diminutive derivation by additive prefixing (2a, 2b).[8] Class 11 nouns in Manda, and class 3, 4, 9, 10, and 11 nouns in Kisi undergo this type of derivation either by additive prefixing (2c, 2d), or by substitutive prefixing (2e)[9]. Nouns of all other classes (1, 2, 5, 6, 7, 8, and 14) in both Kisi and Manda undergo substitutive prefixing to form augmentatives and diminutives (2f, 2g). However, nouns with monosyllabic stems can undergo additive prefixing regardless of the class of the base prefix (2h, 2i). Note the possibility of number mismatch between the singular base prefix and plural added prefix, as seen in (2b, 2h, 2i).

2a)	ᵐbɪlɪ	3-body	kaᵐbɪlɪ	12-3-body	'small body'	(Manda)
2b)	miʋɪlɪ	4-body	tuᵐbɪlɪ	13-3-body	'small bodies'	(Manda)
2c)	lukolo	11-clan	kalukolo	12-11-clan	'small clan'	(Manda)
2d)	ⁿdoⁿga	9-club	liⁿdoⁿga	5-9-club	'large club'	(Kisi)
2e)	mʰene	9-goat	kapene	12-goat	'small goat'	(Kisi)
2f)	nala	1-woman	kadala	12-woman	'small woman'	(Manda)
2g)	kihʊlʊ	7-river	lihʊlʊ	5-river	'large river'	(Kisi)
2h)	linu	5-tooth	milinu	4-5-tooth	'large teeth'	(Manda)
2i)	kihʷa	7-termite	tukihʷa	13-7-termite	'small termites'	(Kisi)

Although class 1 /mu-/ and class 3 /mu-/ morphophonological interactions with stems are identical, in both languages class 1 nouns undergo substitutive derivation whereas class 3 nouns undergo additive derivation. This suggests that the method of derivational prefixation is not driven by the relative difficulty of extracting a stem-initial consonant, as the stem-initial consonants of these classes are extractable or not to the same degree.

1.3 Non-standard singular and plural formation

In Kisi and Manda, singular-plural noun correspondences are normally formed by substitution of one prefix for another, for example /ki-hʊlʊ/ 'river' and /fi-hʊlʊ/ 'rivers'. Forming a singular-plural noun correspondence by additive prefixation is therefore non-standard in Kisi and Manda. The two examples of non-standard singular formation in Kisi and Manda are shown in (3a) and (3b). Since class 9 singular and class 10 plural nouns are identical in form, it may be that the use of class 11 additive prefixing was to derive a singular form distinct from the plural.

3a)	<u>luᵐbʷele</u> (SG)	-	ᵐbʷele (PL)	lu-N-bʷele	11-10-mosquito	'mosquito'	(Kisi)
3b)	<u>luᵐbapani</u> (SG)	-	ᵐbapani (PL)	lu-N-bapani	11-10-flea	'flea'	(Manda)

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[7] Yoneda, Nobuko. 2006. *A classified vocabulary of the Matengo language*. Bantu vocabulary series, 12. Institute for the Study of Languages and Cultures of Asia and Africa (ILCAA), Tokyo University of Foreign Studies.

[8] The derivation of a plural augmentative or diminutive from a class 3/4 noun is achieved using the class 3 base prefix, so it is perhaps misleading to say that derivation is achieved by additive prefixing for class 4 nouns. For example, in (2b) the plural prefix /tu-/ is added to the class 3 singular base prefix /mu-/, /tu-mu-ʋɪlɪ/, rather than the class 4 plural base prefix /mi-/.

[9] Substitutive prefixing refers to the switching of one prefix for another. In (2e) the derivational prefix /ka-/ replaces the original prefix /N-/.

Likewise, there are very few examples of non-standard plural formation in Kisi and Manda. It is not clear what motivates the additive plural prefixing in these examples.

3c)	kalʊpʊːla (SG)	-	<u>fikalʊpʊːla</u> (PL)	fi-ka-lʊpʊːla	8-12-vulture	'vultures'	(Kisi)
3d)	luhoɟolo (SG)	-	<u>maluhoɟolo</u> (PL)	ma-lu-hoɟolo	6-11-fish_sp.	'fish sp.' (PL)	(Kisi)
3e)	mʰaⁿga (SG)	-	<u>mamʰaⁿga</u> (PL)	ma-N-paⁿga	6-9-cave	'caves'	(Kisi)
3f)	ᵐbʊja (SG)	-	<u>ʋaᵐbʊja</u> (PL)	ʋa-mu-bʊja	2-1-grandmother	'grandmothers'	(Manda)

2. Additive prefixing which conveys information secondary to noun class affiliation

There are two types of additive prefixing in Kisi which can convey information secondary to noun class affiliation. One of these is also found in Manda. For these types, the following can be observed:

- The use of the added prefix is determined by the pragmatic or syntactic context. In the right context, a noun may be well-formed and have the same referent without the added prefix.
- Given the right pragmatic or syntactic context, these added prefixes may be used on any noun from any class.
- The added prefix is not from the nominal series of prefixes.

2.1 Person marking (Kisi and Manda)

Nouns (and modifiers) can take 1st or 2nd person additive prefixes to associate them with the speaker or addressee. Kisi person prefixes are /ne/ 1SG, /ɣʷe/ 2SG, /tʷe/ 1PL, /mʷe/ 2PL. Manda person prefixes are /na/ 1SG, /wa/ 2SG, /ta/ 1PL, /mʷa/ 2PL. Person prefixes are generally used with nouns belonging to class 1, 1a, and 2 (4a), and with proper nouns, as their pragmatic use limits them to human referents. However, they can be used with nouns of other classes in cases of anthropomorphism (4b), or augmentative or diminutive derivation (4c).

4a)	tʷeβaːna	tʷe-βa-ana	1PL-2-child	'we children'	(Kisi)
4b)	waliᵐbuɲali	wa-li-ᵐbuɲali	2SG-5-cat	'you cat'	(Manda)
4c)	mʷatudala	mʷa-tu-dala	2PL-13-woman	'you little women'	(Manda)

The person prefix brings with it information regarding number and person. Unlike the additive prefixes described in section 1, the person prefix must agree in number with the base prefix of the noun. With regard to verbal agreement, since person marking does not change class affiliation but instead essentially refines it, marking a noun with a person prefix allows it to function as the subject of a verb which bears corresponding subject marking. Without person marking on the noun, there is no way to combine a lexical subject with a verb bearing a 1st or 2nd person subject prefix since the noun cannot be related syntactically to the grammatical subject. For example in Kisi, /ɣʷemʷana ɣʷilɪma/ means 'you child are farming', where /ɣʷemʷana/ 'you child' is the lexical subject of /ɣʷilɪma/ 'you are farming'. However, /mʷana ɣʷilɪma/ means 'child, you are farming' where /mʷana/ 'child' is a vocative rather than the lexical subject, since it cannot be related syntactically to the 2nd person singular subject marking on the verb.

As well as nouns, person prefixes can also mark nominal modifiers such as adjectives (4d), numerals (4d), quantifiers (4e), and the interrogative 'who?' (4f):

4d)	tʷeⁿga	tʷeβatali	tʷeβadatu	tʷiɟɪᵐba			(Kisi)
	tʷeⁿga	tʷe-βa-tali	tʷe-βa-datu	tu-i-ɟɪᵐb-a			
	1PL.PRO	1PL-2.NP-tall	1PL-2.EP-three	1PL.SP-PROG-sing-FV			
	'We three tall people are singing'						

4e)	tʷeβiⁿgi	tʷikɪta	ɪkɪ	mʷeβiⁿgi	mʷikɪta	kɪla	(Kisi)
	tʷe-βa-iⁿgi	tu-i-kɪt-a	ɪkɪ	mʷe-βa-iⁿgi	mu-i-kɪt-a	kɪ-la	
	1PL-2.NP-many	1PL.SP-PROG-do-FV	7.DP.PROX.DEM	2PL-2.NP-many	2PL.SP-PROG-do-FV	7.DP-DIST.DEM	
	'We many are doing this, you many are doing that'						

4f)	weⁿga	wanani	(Manda)
	weⁿga	wa-nani	
	2SG.PRO	2SG-who	
	'Who are you?'		

In Manda, the numerals /ⁿtʃetʃe/ 'four' and /muhanʊ/ 'five' do not take class agreement when modifying nouns (e.g. /ʊaⁿdu ⁿtʃetʃe/ 'four people'). However, when these numerals modify a plural pronoun they take both class 2 agreement and the person prefix agreeing with the pronoun, as shown below.

4g) teⁿga   taʊaⁿtʃetʃe   titota   (Manda)
    teⁿga   ta-ʊa-ⁿtʃetʃe   ti-tot-a
    1PL.PRO   1PL-2.EP-four   1PL.SP-sew-FV
    'we four are sewing'

Person prefixes may have grammaticalised from personal pronouns. The Kisi pronouns are /neⁿga/ 1SG, /βeːβe/ 2SG, /tʷeⁿga/ 1PL, /mʷeⁿga/ 2PL. The Manda pronouns are /neⁿga/ 1SG, /weⁿga/ 2SG, /teⁿga/ 1PL, /mʷeⁿga/ 2PL.

2.2 Marker of exclusivity/emphasis (Kisi only)

Kisi has another additive prefix which is used on nouns and adjectives as a marker of exclusivity or emphasis. This prefix is from a series identical to that of the enumerative prefix (EP). However, while use of the EP is grammatically conditioned, use of the exclusivity prefix is determined by pragmatics. Also, while the EP only marks numerals for agreement, this exclusivity marker operates as an additive prefix on nouns and pronominal adjectives.

5a) ahogʷile   ɟumhɪⁿɟa   (Kisi)
    a-hogol-ile   ɟu-mu-hɪⁿɟa
    1.SP-give_birth_to-ANT   1.EXCL-1-girl
    'she has only given birth to a girl' (implication: there are no other children)

Nouns taking this exclusivity marker cannot be modified by an adjective. However, a noun or pronominal adjective taking exclusivity marking can be modified by numerals, demonstratives, and relative clauses.

5b) liɲalu   liliːle   siⁿduːsu   siβɪlɪ   (Kisi)
    li-ɲalu   li-li-ile   si-N-duːsu   si-βɪlɪ
    5-cat   5.SP-eat-ANT   10.EXCL-10.NP-small   10.EP-two
    'The cat has eaten the two little ones' (implication: the cat has eaten only two little fish)

5c) Ilola   kikidʊⁿda   kɪla   kiβaandaːsiːsʲe   (Kisi)
    a-i-lol-a   ki-ki-dʊⁿda   kɪ-la   ki-βa-a-mu-laːsʲ-ile
    1.SP-PROG-see-FV 7.EXCL-7-mountain 7.DP-DIST.DEM   7.REL-2.SP-PST₂-1.OP-show-ANT
    'He sees that very mountain that they had shown him'

It is possible that this marker is in fact a remnant of an old CV-shaped augment which is now not in evidence in that form in any other context in Kisi. Alternatively, it may be a grammaticalised preposed modifier, such as the numeral /mu/ 'one'. It only appears once in the text corpus (5c). All other examples were found via elicitation.

Questions for further research

1. To what extent do re-affiliated nouns with lexicalised prefixes occur in other Bantu languages? Would a cross-linguistic study of them reveal more about the motivation for their creation?

2. Is there an underlying reason that explains why some nouns undergo additive prefixation while others (even those within the same class) undergo substitutive prefixation in augmentative and diminutive derivation?

3. What is the motivation for non-standard singular or plural formation in Kisi and Manda? If non-standard plural formation is linked to borrowing, then is there a reason why only the plural is formed by additive prefixing rather than both the singular and the plural?

4. How widespread are person prefixes in the Bantu languages of the area and beyond, and what is their function in these languages? In languages which have additive person marking, is it possible that they grammaticalised from personal pronouns?

5. What is the distribution and function of the Kisi exclusivity prefixes? Are these a remnant of an old augment or did they originate from some other source?