

Some restrictions on Sesotho null noun class prefixes*

Malillo Machobane, Francina Moloji

The National University of Lesotho, P.O. Roma 180, Lesotho, Africa
 emmachobane@nul.ls, fl.moloi@nul.ls

Katherine Demuth

Department of Cognitive and Linguistic Sciences, Brown University, Box 1978,
 Providence RI 02912 U.S.A.
 Katherine_Demuth@brown.edu

Some Sesotho nouns may be used without a noun prefix (a phenomenon we refer to as null noun class prefix). There are several studies that deal with this phenomenon in relation to language acquisition (Kunene, 1979; Suzman, 1980; Connelly, 1984; Tsonope, 1987; Demuth, 1988 and Ziesler & Demuth, 1995). Machobane (2003) deals with this phenomenon in Sesotho, paying attention to the determiner phrase (DP) structure. She argues that in some Bantu languages the noun prefix is the head of DP, while in others a phonologically empty D is the head. This difference leads to parametric variations in DP structures. This article explores phonological, morphological, semantic, syntactic and discourse factors that contribute to the null prefix phenomenon. It shows that phonologically null prefixes are associated with the consonants [l], [s] and [d], which are [+coronal]. The prefixes with the consonants [m] and [b], which have the feature [-coronal], do not allow null prefixes (except in the case of class 14). Morphologically, the nouns that have an agreement which is identical to the noun prefix, allow a null prefix, while the ones that have an agreement prefix which is not identical with the noun prefix, do not (except for class 2). Syntactically, a null prefix is possible where there is agreement in the form of the subject verb agreement, noun modifier or copulative complement. At a discourse level, a null prefix appears when a

noun expresses given/old information or is salient in the discourse context. However, none of the suggested explanations can account for a null prefix being on its own.

Introduction

In Sesotho,¹ as in other Bantu languages, number and class are marked by a noun class (NC) prefix. Meinhof (1932) reconstructed 21 noun class prefixes for Proto-Bantu, but not all of these are found in any one language. Table 1 provides a list of noun class prefixes found in Sesotho.

Table 1: Sesotho noun class prefixes

Class	Prefix	Example	Gloss
1	mo-[mω] ²	mo-sali ³	'woman'
1a	∅	ntate	'father'
2	ba-	ba-sali	'women'
2a	bo-	bo-ntate	'fathers'
3	mo- [mω]	mo-tse	'village'
4	me-[mi]	me-tse	'villages'
5	le-[li]	le-sela	'cloth'
6	ma-	ma-sela	'cloths'
7	se-[si]	se-fate	'tree'
8	di-	di-fate	'trees'
9	N- ⁴	Nku	'sheep'
10	di-	di-Nku	'sheep'
14	bo- [bω]	bo-hobe	'bread'
15	ho-[hω]	ho-ja	'to eat'

Classes 16, 17 and 18 are predominantly used as locatives and are no longer as productive as those in Chichewa (Bresnan & Mchombo, 1989). The above Sesotho noun classes are related in singular/plural pairs to which the stems are common. For example, the singular noun classes 1, 3, 5, 7 and 9 take their plurals in classes 2, 4, 6, 8 and 10 respectively.

However, as Mufwene (1980:248) correctly observes, noun prefixes do not merely signify a number; they are also derivational affixes. Thus, the noun stems in classes 1 and 2 can also be used with prefixes for classes 7 (*se-*) and 14 (*bo-*) to produce nouns such as *senna* 'the characteristics of manhood' and *bonna* 'manhood'. As Table 1 indicates, Sesotho lacks the prefixes that correspond to the Proto-Bantu classes 11, 12 and 13. The Proto-Bantu classes 12 and 13 express diminutive and augmentative respectively, and they are not used in the Sotho group of languages. These languages use nominal suffixes to express such concepts.

Sesotho noun classes are generally heterogeneous in content (Doke & Mofokeng, 1957). The only exceptions are classes 1 and 2, whose nouns denote human beings. Classes 1a and 2a contain proper names, kinship terms, names of certain animals and an interrogative noun *mang* 'who?'

Some Sesotho nouns may be used without noun class prefixes (a phenomenon we refer to as the null noun class prefix) while others cannot, as illustrated in (1) and (2) below:

- (1) (*Le*)*sela le metsi*⁵
 'The cloth is wet'.
(2) **(Mo)kotla o metsi*
 'The bag is wet'.

The noun *lesela* 'cloth' in (1) remains acceptable whether used with or without the prefix. The noun *mokotla* 'bag' in (2), on the other hand, becomes unacceptable when used without the prefix. The null noun class prefix is fairly common in Sesotho (Ziesler & Demuth, 1995). It is less common in other related languages such as SiLozi, which belongs to the Sotho group of languages, and does not occur in other Bantu languages such as Kiswahili (Carstens, 1991 & 1993) and isiZulu (a Nguni language) adult speech (Demuth, 1988).

The aim of this article is to examine the Sesotho null noun class prefix. The questions addressed are:

- In which classes are null noun class prefixes possible?
- What are the phonological, morphological, semantic, syntactic and discourse explanations on null noun class prefixes?

The article is organized as follows: Section one explains the methodology used for analysing the data for the study. Section two lists the class prefixes that appear with a null prefix and the ones that do not. Section three explores phonological, morphological, semantic, syntactic and discourse restrictions on the ability of some prefixes to fall away as against the inability of others to fall away. Section four presents some general conclusions as well as the theoretical implications for the proposed analysis.

Methodology

The data that was used to identify the adult use of null prefix nouns was taken from Demuth's (1984) Sesotho corpus collected in Thabang, Mokhotlong, Lesotho. The corpus consists of 98 hours of spontaneous discourse interactions between four children, their peers and caregivers who were parents, grandparents, uncles, older siblings or cousins. Data was collected by tape-recording interactions. The recordings were transcribed soon after they were made and the data was computerized, morphologically glossed and tagged.

In our study, only adult utterances were used. There were 1408 adult utterances out of a total of approximately 35,000 utterances. From the adult utterances, nouns were identified and coded in terms of class prefix and syntactic function, as indicated in Appendix 1. We focussed specifically on the realization of prefixes with and without modifier/agreement, nouns lexicalized with null prefixes (that is, nouns that are now accepted without prefixes in various syntactic positions, for example, *Ke e nkile ka **koti-koti*** 'I have taken it with a **tin**'), and the syntactic function of the noun, for example, subject, object, locative and modifier such as copula, qualificative and adverbial. Where required, sentences could not be found in the corpus; we constructed them and verified either their acceptability or unacceptability with other Sesotho speakers.

Classes with null noun class prefixes

Early studies that set the stage for the classification of Bantu languages in general include Guthrie (1948), Henrici (1973) and Greenberg (1974). In studies dealing with the classification of particular Bantu languages, the noun classes are also addressed, as in Voorhoeve (1968) where the noun classes in Bamileke are dealt with, and in Hyman (1981) where the noun classes in the Grassfields Bantu Borderland are examined. Dembetembe (1999) discusses the classification of proper nouns in Shona. Other studies deal with aspects of class prefixes; for instance, Fortune (1970) and Dembetembe (1995) focus on primary and secondary noun prefixes in Zezuru and Shona respectively. Further areas of interest include the role of noun prefixes and verbs or verb suffixes in indicating augmentative and diminutive (Frankl in consultation with Ali Omar, 1994; Baumbach, 1985; Mulaudzi, 2000).

The class 10 prefix in Lamnso, a Bantu language spoken in the United Republic of Cameroon, is the only prefix that is deleted whenever the noun is followed by a modifier (McGarrity & Botne, 2001). Other studies note the occurrence of optional null prefixes, with nouns indicating the greater plural (what Doke & Mofokeng, 1957 and Guma, 1971 refer to as the 'quantitative plural') in languages such as Banyun, a Niger-Kordofian language spoken in Senegal and Guinea-Bissau, Sefuno and Fula (Corbett, 1991 & 2000).

For southern Bantu languages, various references have been made to the null prefix phenomenon in the area of language acquisition. For example, children learning isiSwati (Kunene, 1979), Sesotho (Demuth, 1984 & 1992; Connelly, 1984; Ziesler & Demuth, 1995), Setswana (Tsonope, 1987) and isiZulu (Suzman, 1991), have been found to leave out the prefix in the early stages of language acquisition.

Outside the field of language acquisition, Machobane (2003) looks at Sesotho null prefixes in relation to the variation in DP structures. As far as we are aware, there is no study that examines the various linguistic determinants of the null prefix that are discussed in this article. The noun classes in the corpus that allow null prefixes and those that do not are indicated in Table 2.

Table 2: Noun classes that drop prefixes and the ones that do not

Null prefixes			Non-null prefixes		
Class	Prefix	Examples	Class	Prefix	Examples
5	le- [lɪ]	<i>lerako</i> 'wall'	1	mo- [mɔ]	<i>mosali</i> 'woman'
7	se- [sɪ]	<i>sefate</i> 'tree'	2	ba-	<i>basali</i> 'women'
8	di-	<i>difate</i> 'trees'	2a	bo-	<i>bomme</i> 'mothers'
10	di-	<i>dintho</i> 'things'	3	mo- [mɔ]	<i>mokotla</i> 'bag'
14	bo- [bɔ]	<i>bohobe</i> 'bread'	4	me- [mɪ]	<i>mekotla</i> 'bags'
			6	ma-	<i>marako</i> 'walls'

Prefixes for class 1a and 9 are not listed in the above examples, as most nouns in these classes take a zero morpheme as the prefix. In such cases, there is no prefix to drop. The class 15 nouns are infinitives derived by prefixing *ho-* 'to' to a verb stem. These nouns do not drop the prefix, possibly because the derived noun has more verbal properties than nominal ones.

The prefixes for singular/plural pairs such as classes 7 and 8 both allow a null prefix. On the other hand, class 6, which is the plural of class 5, does not allow a null prefix. The frequency of null prefixes, as observed in adult speech in the whole corpus, is illustrated in Table 3.

Table 3: Rate of null prefixes by noun class in the corpus (calculated as a percentage of the total number of tokens)

Class	Prefix	Total number of tokens	Null prefix	Null prefix %
5	[lɪ-]	432	57	4.0%
7	[sɪ-]	351	23	1.6%
8	[di-]	179	26	1.8%
10	[di]	352	108	7.7%
14	[bɔ-]	94	5	0.4%
TOTAL		1408	219	15.5%

Table 3 shows that class 10 has the greatest number of null prefixes (108 instances) even though class 5 appears to have more nouns (432) than class 10 (352) in the corpus. The class 10 noun that frequently drops the prefix is *dintho* 'things', frequently used as *-ntho* 'thing'. The contributing factor to high frequency is that the noun *dintho* 'things' may stand for nouns in several other classes. The next high frequency null prefix class is 5 (57 instances). Thirty-two of these instances are followed by modifiers, while 25 are locatives formed from class 5 nouns without a prefix. The high number (432) of class 5 nouns in the corpus may explain the high frequency of the null prefix. The reason for the high occurrence of class 5 nouns in the corpus, as compared to other nouns, remains unexplained however.

Although many (351) class 7 nouns were found in the corpus, there seem to be fewer instances of null prefixes (23). We have no explanation for this low frequency, especially when we compare class 7 to class 8 (which is the plural of class 7). There are fewer class 8 nouns (179) in the corpus, yet there are comparatively more null prefixes (26).

We have provided the statistics for null prefixes by noun classes only. Table 4 provides statistics for null prefixes by class and syntactic function.

Table 4: Distribution of null prefixes by class and syntactic function

Class	Subjects	Objects	Locative	Prepositional phrase	Copula	Total
5	13	15	25	4	0	57
7	5	16	0	0	2	23
8	4	19	1	2	0	26
10	12	81	3	9	3	108
14	0	5	0	0	0	5
Total	34	136	29	15	5	219

The examples in (3) illustrate the use of various syntactic functions of nouns without prefixes:

- (3a) Subject: *(Le)tsatsi le sa chese hee* (TVIIE, 29)⁶
'Therefore the sun should not be hot'.
- (3b) Object: *Oo, le choatlile (se)sepa see sa ka?* (LXC, 84)
'Oh, you have broken my soap?'
- (3c) Locative: *Se ka minela (di)kobong tsa ka* (LIIA, 215)
'Do not blow your nose onto my blankets'.
- (3d) Prepositional phrase: *U nts'o etsa'ng ka (le)mati lena?* (TVB, 4)
'What are you doing with this door?'
- (3e) Copula: *Ke (di)ntho tsena* (LIXC, 55)
'It is these things'.

It can be deduced from Table 4 that there are fewer subject null prefixes (34) in comparison to object null prefixes (136). Since Sesotho is a 'pro-omission' language owing to its concordial agreement system, it allows the subject to remain unexpressed (cf. Rizzi, 1982, 1986; Jaeggli & Safir, 1989), resulting in fewer lexical subjects and a greater overall percentage of null prefixes in the object position. There were 29 tokens of locative null prefixes of which six were modified. These were, *tsatsing lena* 'this day' (two occurrences), *kobong tsa ka* 'in my blankets' (two occurrences), *nthong tseo* 'at those things' and *janeng tseo* 'at those dishes'. The remaining 22 appeared without any agreement. They are restricted to locatives that seem to have been lexicalized with a null prefix (that is, when a locative is now accepted without a prefix in relevant syntactic positions, as in *hanong* 'in the mouth', *ifo* 'at the fire place', *sakeng* 'at the kraal' and *thekeng* 'on the waist'). The examples in (3f) indicate the use of these locatives without a modifier.

- (3f) i. *A tl'o tena mona thekeng* (LXC, 553)
'So that she puts it here on the waist'.
- (3f) ii. *U bo u behe ifo* (LXC, 438)
'You should also put on the hearth'.

The above examples are to be contrasted with the unacceptable ones in (3g), where unlexicalized locatives (that is locatives that must be used with the noun prefix) have been used:

(3g) i. *Ke phehile mona *(se)tofong*

'I have cooked here on the stove.'

(3g) ii. *Ke lula *(le)baleng*

'I sit in the courtyard'

The question that needs to be addressed is why some prefixes are dropped whereas others are not. The next section considers the phonological, morphological, semantic, syntactic and discourse explanations for the ability or inability of a null prefix to occur.

Explanations for null prefix

Phonological explanation

The noun class prefixes that drop and the ones that do not, are given in Table 2 above. It would seem that the consonants for the prefixes that are dropped are [l], [s] and [d] while the ones for those that are not dropped are [m] and [b]. With the exception of class 14 that begins with [b] (to be discussed below), the consonants for the prefixes that are dropped have the feature [+coronal], whereas the consonants for the ones that are not dropped have the feature [-coronal]. The feature [+coronal] is unmarked and thus more likely to undergo a change than the [-coronal] one. According to Carstens (1993), the Kiswahili prefixes for classes 5, 7 and 8 have the consonants [g], [k] and [v] respectively. These consonants are [-coronal] and we realize that they do not drop. Our other observation is that the Zulu prefixes for classes 5, 7 and 8, *(il)i-*, *isi-* and *izi-* respectively, have [+coronal] consonants, but they are not associated with a null prefix. It is possible that the initial vowel in the Nguni prefixes plays a role in deterring the occurrence of a null prefix. We are aware that the similarities in phonological features, as explained here, may be coincidental.

The Sesotho class 14 noun prefix begins with [b], but allows a null prefix, as illustrated in (4) below:

- (4a) *U batla (bo)hobe bo botšo?* (LIXB, 42)
 'Do you want brown bread?'
- (4b) *(Bo)roko bo joang na ?* (TVC, 33)
 'How is the sleep?'

These examples appear to contradict the phonological explanation indicated above, as the class 14 prefix is *bo-* and [b] is [-coronal]. We cannot even attribute the ability of the prefix to be dropped to the vowel [ɔ] that follows, as it is a back vowel and therefore also [-coronal] (cf. Hyman, 1975:35 & Ladefoged, 1975 on the feature [grave]). Surprisingly, the class 1 nominal stems, which cannot appear without a class prefix, can occur without it when they take the class 14 prefix, as illustrated in (5b) below:

- (5a) **(Mo)sali o fihlile*
 'The woman has arrived'.
- (5b) *(Bo)sali bo fihlile*
 'Womanhood has arrived'.

We will provide a possible discourse explanation for the null prefix in class 14 nouns later.

The number of syllables in the nominal stems for classes 5, 7 and 8 plays no role in influencing the null prefix since monosyllabic, disyllabic, tri-syllabic and polysyllabic stems may be involved in this process. The examples in (6) and (7) below, respectively illustrate the use of monosyllabic and disyllabic stems from classes 5, 7 and 8:

- (6a) *Tsia (le)joe leno* (LIA, 497)
 'Bring that stone'.
- (6b) *(Se)fi se sehola* (created example)
 'The trap is big'.
- (6c) *(Di)jo di felile* (created example)
 'The food is finished'.

- (7a) *Ha ke re (le)khood le tjena* (LXC, 423)
'I do not mean a white person like this one'.
(7b) *(Se)fate sa ka e le see?* (TIID, 511)
'Though my tree is this one?'
(7c) *Ke ranta (di)eta tseo?* (LIIC, 624)
'Do those shoes cost one rand?'

The nouns that do not allow a null prefix, however, remain unacceptable, irrespective of the number of syllables in the stem, as illustrated in (8) below:

- (8a) **(Mo)tse o moholo* (one syllable)
'The village is big'.
(8b) **(Mo)lamu o robehile* (two syllables)
'The stick is broken'.
(8c) **(Mo)lisana o fhlile* (three syllables)
'The boy has arrived'.

In the case of class 14 nouns, monosyllabic stems do not have the option to drop the prefix, as illustrated in (9) below. Compare the unacceptable monosyllabic class 14 stems in (9) with the acceptable ones for classes 5, 7 and 8 in (6).

- (9a) **(Bo)ko bo bohlokoa liphoofo long tsohle*
'Brain is important for all animals'.
(9b) **(Bo)bi bo shoele*
'The wasps are dead'.

From the above discussion, it can be concluded that nouns with an initial consonant that bears a [+coronal] feature can drop the prefix, while the ones with a [-coronal] feature cannot. However, the phonological explanation given for the null prefix applies only to classes 5, 7, 8 and 10 nouns, but not to class 14 nouns. Obviously, the phonological explanation, given earlier, is not an adequate account for the null prefix phenomenon.

Morphological explanation

Another possible explanation for the null prefix is that it may occur where the shape of the agreement morpheme is identical with the noun prefix so that the identity of the class membership of a noun with a null prefix can be deduced from the subject verb agreement, copulative complement or noun modifier agreement. For example, in the case of classes 1, 3, 4 and 6, which do not allow a null prefix, the subject concord does not completely resemble the class prefix with the result that the membership of the noun without the prefix cannot be derived from the subject concord with certainty. However this is not a sufficient explanation, because while the class 2 prefix *ba-* is identical with its agreement morpheme, it does not facilitate a null prefix. On the other hand, there are modifiers with an identical noun prefix that allow a null prefix. For example, the adjectival agreement for classes 5, 7, 8 and 10 is *la*, *sa*, *tsa* and *tsa*, while the noun class prefixes are *le-*, *se-*, *di-* and *di-* respectively. This is also true of demonstratives, such as *lane*, *sane*, *tsane* and *tsane* 'those', in the above-mentioned classes.⁷

To resolve this difference, we may have to say that what is relevant for classes 5 and 7 is the initial consonant rather than the entire prefix. This takes us back to the phonological explanation given earlier. We could also assume that for classes 8 and 10, the underlying phonological representation for *ts-* is *di-*, which facilitates the null prefix. This again resorts to a phonological explanation. The conclusion that can be drawn from this description is that a morphological explanation does not cater for null prefixes in all instances.

Semantic explanation

As far as semantics is concerned, there seems to be no general explanation for the null prefix in most classes. The only classes that have semantic homogeneity are 1 and 2. The nouns in these classes have the feature [+human], as was correctly observed by Givón (1971) and Louwens (2000). One might be tempted to attribute the absence of a prefix in these classes to anthropocentrism, i.e. the human centred nature of language, which would explain the resistance to linguistic change by classes with a predominantly human content. However this would not be a sufficient explanation, as this notion would be restricted to

[+human] nouns in classes 1 and 2 only. The ability of [+human] nouns in classes 5, 7, 8 and 10 to allow a null prefix would require a separate explanation. Singular/plural pairs such as classes 5 and 6, which contain nouns with the same semantic content, behave differently with respect to a null prefix. Thus, class 5 nouns may occur without a prefix while class 6 ones cannot. There are also some class 9 nouns, which may take their plural in either class 6 or class 10, for example, *khomo* > *makhomo* (class 6) or *dikhomo* (class 10). In such cases, the class 6 prefix cannot be dropped, while the class 10 prefix can. The two classes behave differently, although the semantic content of the word *khomo* is 'cattle' in both classes. As Doke and Mofokeng (1957) correctly observe, many nouns of class 5 (which is class 10 according to Meinhof, 1932) designating animals, express a quantitative plural when used with a class 6 prefix. Thus, *makhomo* means 'herds of cattle'. This suggests that the difference in meaning between the use of class 6 and class 10 prefixes should be attributed to the prefix, but the meaning of the stem remains the same.

The semantic content for the classes that may drop the prefixes is also varied. For example, class 5, which allows a null prefix, contains nouns that refer to parts of the body, such as *letsoho* 'hand', natural phenomena, such as *leru* 'cloud', names of tribal or national individuals, such as *Letebele* 'member of the Ndebele tribe', a special category of people, such as *lesoha* 'bachelor', and nouns indicative of habit or occupation, such as *letaoo* 'drunkard'. Some of these semantic categories also appear in classes that do not allow a null prefix. For example, the nouns *molomo* 'mouth' (class 3 = body-part), *mookoli* 'rainbow' (class 3 = natural phenomenon), *Motswana* 'member of the Tswana tribe' (class 1 = tribal individual) and *mohlankana* 'youth' (class 1 = special category of people), cannot drop the class prefix. From these examples, it is obvious that the ability or inability of a noun to have a null prefix cannot be attributed solely to the semantic content of the classes.

Syntactic explanation for null prefix

We have shown that the phonological basis for the Sesotho null prefix might be that the initial consonant of the prefix must be [+coronal]. We have suggested that the inability of the null prefix to appear in closely related languages such as isiZulu, of which the phonological structure of the noun prefix is similar to that of Sesotho, could be attributed to

the initial vowel in the noun prefix. We have already indicated that class 14 appears to be an exception in this regard. It was further indicated that morphological and semantic explanations do not provide a satisfactory account for the null prefix. This section will show that, syntactically, there must be agreement to license a null prefix. This is consistent with Ziesler and Demuth's (1995) observation that '[the] prefix is optionally dropped in adult speech in classes 5, 7, 8, 10 and 14 in the presence of a modifier'. Like other Bantu languages, Sesotho nouns may be used with post-nominal modifiers such as adjectives, demonstratives, possessives, quantitatives and relatives (Guma, 1971), as illustrated in the examples in (10):

- (10a) Adjective: *Nkhong eno e beileng (se)kotlolo se seholo* (TIVF, 22)
'The clay pot on which a big bowl is placed'.
- (10b) Demonstrative: *Bea (se)eta sena* (TVD, 120)
'Put this shoe down'.
- (10c) Possessive: *Ke (se)kolo sa'ng?* (LXC, 360)
'What kind of school is it?'
- (10d) Relative Phrase: *O u siea ka (di)lemo tse kae?* (HIVD, 331)
'By how many years is she/he older than you?'
- (10e) Quantitative: *Ba lutse (le)tsatsi lohle* (created example)
'They sat for the whole day'.

The above examples show that the qualificative modifier agreement facilitates a null prefix. The agreement can also be in the form of a subject-verb agreement or copulative complement. Thus, in (11a) below, the noun *poleiti* 'plate' is acceptable without a prefix because of the presence of the subject-verb agreement *di-*. The copulative construction meets the requirements for agreement when it is followed by a qualificative or a pronoun in the same class as the noun, as in examples (11b) and (11c):

- (11a) *(Di)poleiti ha di tsoa ...* (TVF, 29)
'When the plates get out ...'
- (11b) *(Le)joe ke lena, Litlhare* (HXA, 23)

'Lithare, here is the stone'

(11c) *(Le)he ke lona* (created example)

'The egg is the one'

What are the available accounts for the null prefix phenomenon in the environment of modifiers? Machobane (2003) argues that the Sesotho prefix is a functional category generated independently of the noun stem and that feature checking may take place either in the number phrase or at DP. Where the feature checking takes place in the number phrase and the necessary conditions are met, the nominal stem will surface without a prefix. Since that analysis concentrates on the DP structure, it is not adopted here.

Although an agreement appears to be a relevant factor for the occurrence of a null prefix, the presence of an object marker which, like a subject agreement, carries agreement features, does not facilitate a null prefix, as illustrated in (12a) below:

(12a) *Le se choatlile *(se)sepa* (created example)

'You have broken (it) the soap'

(12b) *Le se choatlile (se)sepa sena*

'You have broken (it), this soap'

The presence of the object marker in (12a) does not render the sentence acceptable when the noun prefix is left out. In (12b), where a modifier is used alongside the object marker, the null prefix is acceptable.

The unacceptability of sentences such as (12a) provides a fertile area for research. Several possible explanations that can be used to account for its unacceptability come to mind. One could propose that an object agreement, unlike the subject agreement, lacks features enabling it to license a null prefix. This explanation would be unacceptable, as the subject and object agreement markers are generally identical in form. One could also propose that an object agreement differs from a subject agreement in that it is not a governor.⁸ This explanation is unsatisfactory, as modifiers such as demonstratives and quantitatives are not

regarded as governors, but they do license a null prefix. One could further propose that when an object marker is used, the object noun appears in an adjunct position. As such, the object noun, without a prefix, falls outside the domain⁹ of the object agreement. However, there are sentences in which an object agreement seems to allow a null prefix outside their domain, as indicated in (13):

- (13) *(Se)tulo banna ba se batla*
 'As for the chair, men want it'.

In example (13) the object marker *-se-* licenses the null prefix in topic position, which is outside its domain. We thus have the noun *tulo* instead of *setulo* 'chair'. It will be indicated in the next section that a better explanation for the unacceptability of sentence (12a) is discourse-based (cf. Louwrens, 1991a & 1991b). The conclusion to be drawn from the above discussion is that agreement alone does not allow a null prefix in all cases.

Discourse explanation

We suggested in the previous section that the unacceptability of a null prefix in the object position may be attributed to discourse factors, despite the presence of an object marker. As Louwrens (1991a & 1991b) correctly observes for Northern Sotho, the post-verbal position is associated with new information. This means that a null prefix is unacceptable in the object position because it refers to new information. A look at the predominant use of nouns with null prefixes and those with prefixes in the corpus, suggests that the difference may be accounted for in terms of a given/new information discourse dichotomy. According to Chafe (1976:30 [see also Clark & Clark, 1977]):

given or old information is that knowledge which the speaker assumes to be in the consciousness of the addressee at the time of utterance. So-called new information is what the speaker assumes he is introducing into the addressee's consciousness by what he says.

Chafe further indicates that givenness may be established on the basis of either extra-linguistic or linguistic context. Extra-linguistically, the speaker may believe that both she/he and the addressee share the perception, hence the consciousness of some object in the environment. These observations, which were made in relation to the status of nouns, are applicable to the difference between nouns used with a prefix and the ones used without a prefix. For example, in (14) below it is clear from the context that the shoes are in the vicinity. The speaker could only ask for permission to put the shoes **away** if they were in the vicinity. Thus, the noun *eta* 'shoe' appears without a prefix because the topic is salient from the context.

- (14) *Ke behe eta tsa hao 'm'e?* (LIIC, 427)
'Should I put your shoes away, mother?'

Although the noun *seeta* 'shoe' had not been previously mentioned, it appears without a prefix. Similarly, in (15) the prefix has been omitted because the referent/object is salient in the discourse context. The referent 'doll' is in the vicinity, so it is not regarded as new information:

- (15a) Adult: *Bitso la hae ke mang?* (LXA, 152)
'What is her name?'
- (15b) Child: *Bitso la hae ke 'Neuoe*
'Her name is 'Neuoe'.

Chafe (1976) further indicates that the most common linguistic basis for the speaker's assumption that something is in the addressee's consciousness, is the prior mention of a referent. Thus, the noun with a prefix is used when a noun is introduced for the first time, as indicated in (16b) and (17a), while a noun without a prefix is used in a subsequent reference, as in (16c) and (17b) below:

- (16a) Adult: *Motšeara la ja'ng?* (LXC, 324)
'What did you eat during the day?'

- (16b) Child: *Ra ja lebese*
'We ate milk'.
(16c) Adult: *Bese la'ng?*
'What kind of milk?'
(17a) Adult: *Lebitso la ngoana ke mang?* (LIIC, 111)
'What is the child's name?'
(17b) Child: *Bitso la ngoana ke Ntatao*
'The child's name is Ntatao'.

In (16b), the noun *lebese* 'milk' appears with the prefix because it is the first time that it is introduced in the discussion – hence new information in this case.¹⁰ In (16c), the noun is used without a prefix because it has already been referred to, resulting in *bese* instead of *lebese* 'milk'. Similarly, in (17a), where the adult is asking the child what the name of the baby (that is, her doll) is, the noun *lebitso* 'name' appears with a prefix. In (17b) the prefix is left out, as this is the subsequent use of this noun. We thus have *bitso* instead of *lebitso* because the noun has already been referred to. The nouns *bese* and *bitso* are common knowledge referents between interlocutors. We may therefore say that the noun class prefix may be indicative of new information, while the absence thereof may be indicative of old information.

Louwrens (1981) has used this linguistic factor of co-referentiality to indicate that a noun status as 'given' may arise when a noun, which appears later, is co-referential with another, which appeared earlier. This analysis in relation to the status of nouns applies equally to nouns used with or without prefixes. As Louwrens correctly observes, certain nouns always present given information irrespective of appearance in or out of context. For example, in (18c) the noun *lehloa* 'snow' appears without a prefix when first used:

- (18a) Speaker 1: *Holim'a leloala mono* (LIIA, 561)
'There, on top of the grinding stone'
(18b) Speaker 2: *Oo, ke mang ea ka lerakong ?* (LIIA, 562)

'Oh, who is it in the wall enclosure?'

(18c) Speaker 1: (*Le*)*hloa se ntse le na* (LIIA, 563)

'The snow is already falling'

In utterances (18a and 18b) above, the class 5 nouns, *leloala* 'grinding stone' and *lerakong* 'in the wall enclosure', are not given/known information. However, in utterance (18c), the noun *lehloa* 'snow' has a unique referent and therefore appears without a prefix. For, as Chafe (1972:57) observes:

some noun roots such as *sky* always involve unique individuals. They can be regarded as known sets which have but one member. If then, one knows the concept of *sky*, one cannot help but know which member of the set is being talked about since there is only one.

The class 14 nouns, referred to earlier, may also be analysed in terms of the distinction 'given' versus 'old' information. It must be noted that most of the nouns that belong to this class are abstract, for example, *bohale* 'anger' and *borena* 'chieftainship', or indicative of collectivity, such as *bolepo* 'tassels' and *bobatsi* 'nettles', or mass such as *bolokoe* 'fresh cow dung', *bobete* 'cooked blood', *bolalu* 'pus', (*bo*)*joang* 'grass' and (*bo*)*joala* 'beer'.

Louwrens (1981) identifies a category of nouns that he refers to as generic nouns, which have a specific genus or species as a unique referent. Such nouns are also considered to present given information. The fact that most class 14 nouns convey an abstract, collective or mass meaning may cause them to have a unique referent. Borrowed class 14 nouns, such as *borokho* 'bridge' and *borikhoe* 'trousers', which are count nouns, also allow a null prefix. This is not surprising, given that foreign acquisitions adapt to the phonological, morphological and semantic structure of Sesotho (Doke & Mofokeng, 1957). Since class 14 nouns drop the prefix, the nouns borrowed into this class adopt this behaviour.

We notice that there are some nouns such as *masoabi* 'sadness' and *makhethe* 'cleanliness' in class 6, which are abstract, but do not allow the null prefix. This suggests that some

determinants for a null prefix may override others. In this case, the phonological factors seem to override the discourse ones.

We suggested earlier that the acceptability of the sentence in (13), in which the object marker seems to license the null prefix noun outside its domain, can be accounted for in terms of a discourse explanation. The fact that the noun *setulo* is said to be in topic position, suggests that it is old information, for, as Louwrens (1991b) correctly observes, the pre-posing of object noun phrases is a pragmatic strategy to focus upon topical information and, since the preverbal position is generally associated with old information, we assume that the noun *tulo* represents old information. In this respect, the object marker plays no role in licensing the null prefix in the topic position.

The sum total of the discussion above is that the noun with the class prefix is likely to express new information, while the one without the prefix is likely to refer to old information. As indicated in the preceding discussion, linguistically given/old information may be indicated by co-referentiality with a noun that was used earlier. Extra-linguistically, however, given/old information may be determined by the context or when the object referred to is in the vicinity or has a unique referent. There are cases, however, where these discourse conditions are met, but the noun does not drop the prefix, as in (19) below:

- (19a) Speaker 1: *Hlobohang, u nke seoete seno.* (HIIC, 0-6)
 'Hlobohang, you take that carrot.'
- (19b) Speaker 2: *E-e hle, na seoete seo se tla jeoa?*
 'No, no, will that carrot be eaten?'
- (19c) Speaker 1: *Na seoete sena se tla jeoa uena Hlobohang tje?*
 'Will that carrot be eaten like this, you Hlobohang?'

In the conversation above, the noun *seoete* 'carrot' has an option to drop the prefix, as it has already been mentioned by the first speaker and is modified, but it does not. The prefix is not dropped, even when the same noun is repeated once more by the same speaker. This

situation leads to the conclusion that although discourse-based explanation appears to be promising, it cannot stand alone in explaining the null prefix.

Conclusion

This article has examined the null prefix phenomenon using a corpus of 98 hours of adult spontaneous speech. It looked at the phonological, morphological, semantic, syntactic and discourse factors facilitating a null prefix. It concludes that none of the given explanations can, on their own, account for the null prefix. The phonological explanation provided for the null prefix phenomenon is that prefixes for classes 1, 2, 2a, 3, 4 and 6 are not dropped because of the feature [-coronal] associated with their initial consonants. The prefixes for classes 5, 7, 8 and 10, with the option to be dropped, have the consonants [l], [s] and [d], which have the feature [+coronal]. The morphological explanation for the null prefix is that there must be identity between the agreement and the noun prefix. However, there are cases where the identity requirement is met, but the prefix is not dropped. The general syntactic explanation provided, is that for a null prefix to occur, there must be agreement, which can be in the form of a subject-verb agreement, copulative complement or noun-modifier agreement. The article also finds that discourse factors, such as given and new discourse information, play a role in licensing null prefixes where old/given reference can occur with a null prefix. Class 14 nouns, which do not have a [+coronal] prefix, may also occur with a null prefix when they refer to a unique referent, though some restrictions apply. So far, there seems to be no available semantic explanation that facilitates a null prefix. The question of how the phonological, morphological, discourse and syntactic explanations provided here interact with one another is not clear. It is possible that givenness/definiteness is a syntactic feature located either in the prefix (Visser, 2001) or in the modifier. It is also possible that the various factors indicated here are hierarchically ordered so that the factor that ranks highest overrides the ones below it.

Notes

- * This study was conceived during a research visit to Brown University while the authors were conducting research under NSF grant No. SBR-9727897.

This article was presented as a paper during the Interim Conference of the African Languages Association of Southern Africa, held at the National University of Lesotho from 5–7 July 2004. We wish to thank the participants at that conference for their contribution. We also thank Professor Alison Love for the comments she made on the paper.

1. Sesotho is a language spoken in Lesotho and parts of South Africa. In earlier grammar books, it is referred to as Southern Sotho. The term 'Sesotho' is used in this article as it is the term used by the speakers of the language.
2. The International Phonetic Alphabet (IPA) symbols used in this article represent the Sesotho vowels as follows:
 [ɔ] represents the half-close, tense, back vowel which is approximately half-way between [u] and [o].
 [ɪ] represents a half-close tense vowel which is approximately half-way between [i] and [e].
3. We use the current Lesotho orthography, except for classes 8 and 10, where [d] is used instead of [l], as this differentiates between the /l/ sound used in the prefix of class 5 and pronounced [l] and the /l/ sound used in the prefixes of classes 8 and 10 but pronounced [d].
4. The symbol N represents a homorganic nasal, which has become an integral part of the monosyllabic stems for class 9 nouns.
5. Where a prefix is indicated in parenthesis, it indicates that the noun is acceptable with or without a noun prefix, while *(prefix) indicates that the noun used becomes unacceptable if used without a prefix.
6. The designations such as (TVIIE, 29), stand for the file names and the line from which examples have been taken in the corpus. Where no designations appear, the examples were created.
7. This view differs from that of people who may consider the morphological shape of agreement to be the only explanation for a null prefix.
8. Haegeman (1994:141) defines government as follows:
 A governs B if and only if:
 (i) A is a governor

- (ii) A M-commands B
- (iii) no barrier intervenes between A and B

Where:

- (a) governors are lexical heads (V, N, P, A) and tensed I
- (b) maximal projections are barriers.

Haegeman (1994:141) defines the M-command as follows:

A M-commands B if and only if:

A does not dominate B and every X (X= maximal projection) that dominates A also dominates B

9. Manzini (1983) defines c-domain as follows:

γ is the c-domain of α if:

γ is the minimal maximal category (i.e. lowest XP) dominating α

NP is the c-domain for the noun and modifier agreement since it is the minimal maximal category dominating both of them. IP is the c-domain for the subject NP and the subject verb agreement, as it is the minimal maximal category dominating the two of them.

10. This does not mean that every noun with a prefix indicates new information. Similarly, not all instances of a null prefix indicate old/given information.

Appendix 1: Coding system

	Distribution of nouns	Total number of tokens
1d	Null prefix + modifier/agreement	190
2d	A noun with a prefix + modifier/agreement	315
3c	A noun with a prefix but without a modifier	874
4c	Lexicalized and other null prefix locatives	29
	Total	<u>1408</u>

	Syntactic function	Total number of tokens
11	Subject	141
12	Object	716
13	Locative	186
14	Prepositional phrase	135
15	Copula	184
16	Qualificative	44
17	Time adverb	1
18	Manner adverb	1
	Total	<u>1408</u>

References

- Baumbach, E.J.M. 1985. Pre-Tsonga noun class prefixes and suffixes. *South African Journal of African Languages* 5(3):69–76.
- Bresnan, J. & Mchombo, S.A. 1989. On the syntax of Bantu noun class prefixes. Manuscript. Berkeley: Stanford University and University of California.
- Carstens, V. 1991. The morphology and syntax of determiner phrases. Unpublished doctoral thesis. California: UCLA.
- Carstens, V. 1993. On nominal morphology and DP structure, in *Theoretical aspects of Bantu grammar*, edited by S. Mchombo. Stanford: CSLI Publications:151–180.
- Chafe, W.L. 1972. Discourse structure and human knowledge, in *Language comprehension and the acquisition of knowledge*, edited by R.O. Freedle & J.B. Carroll. Washington DC: V.H. Winston & Sons:41–69.
- Chafe, W.L. 1976. Givenness, contrastiveness, definiteness, subjects, topics and point of view, in *Subject and topic*, edited by C.N. Li. New York: Academic Press Inc:25–55.
- Clark, H.H. & Clark, E.V. 1977. *Psychology and language*. New York: Harcourt, Brace, Jovanovich.
- Connelly, M. 1984. Basotho children's acquisition of noun morphology. Unpublished doctoral thesis. Essex: University of Essex.

- Corbett, Greville G. 1991. *Gender*. Oxford: Cambridge University Press.
- Corbett, Greville G. 2000. *Number*. Oxford: Cambridge University Press.
- Dembetembe, N.C. 1995. Secondary noun class prefixes taken further with special reference to Shona. *South African Journal of African Languages* 15(3):100–108.
- Dembetembe, N.C. 1999. The classification of proper nouns in Shona: problems and possible solutions. *African Mosaic: Festschrift for J.A. Louw*, edited by R. Finlayson. Pretoria: UNISA Press:355–376.
- Demuth, K. 1984. *Aspects of Sesotho language acquisition*. Bloomington, Indiana: Indiana University Linguistics Club.
- Demuth, K. 1988. Noun class agreement in Sesotho acquisition, in *Agreement in natural language: Approaches, theories and descriptions*, edited by M. Barlow & C.A. Ferguson. CSLI: Chicago University Press:305–321.
- Demuth, K. 1992. Acquisition of Sesotho, in *The crosslinguistic study of language acquisition* Vol. 3, edited by D. Slobin. Hillsdale NJ: Lawrence Erlbaum Associates:557–638.
- Doke, C.M. & Mofokeng, S.M. 1957. *A textbook of Southern Sotho grammar*. Cape Town: Longman.
- Fortune, G. 1970. The references of primary and secondary noun prefixes in Zezuru. *African Studies* 29(2):81–110.
- Frankl, P.J.L. in consultation with Yahya Ali Omar. 1994. Diminutives and significance, augmentatives and 'monstrosity': examples of class re-assignment in Swahili. *South African Journal of African Languages* 14(3):113–116.
- Givon, T. 1971. Some historical changes in the noun-class system of Bantu, their possible causes and wider applications. *Papers in African Linguistics*, edited by Chin-Wu Kim & Herbert Stahlke. Edmonton: Linguistic Research Inc.:33–54.
- Greenberg, J. 1974. Bantu and its closest relatives. *Studies in African Linguistics Supplement* 5:115–119.
- Guma, S.M. 1971. *An outline structure of Southern Sotho*. Pietermaritzburg: Shuter & Shooter.
- Guthrie, M. 1948. Gender, number and person in Bantu languages. *Bulletin of the School of Oriental and African Studies* 18:545–555.

- Haegeman, L. 1994. *Introduction to government and binding theory*. 2nd Edition. Oxford: Blackwell Publishers.
- Henrici, A. 1973. Numerical classification of Bantu-languages. *African Language Studies* 14:82–104.
- Hyman, L. 1975. *Phonology: Theory and analysis*. New York: Holt, Rinehart and Winston.
- Hyman, L. 1981. *Noun classes in the Grassfields Bantu Borderland*. SCOPIL 8. Los Angeles: University of Southern California.
- Jaeggli, O. & Safir, K.J. (eds.). 1989. *The null subject parameter*. Dordrecht: Kluwer.
- Kunene, E.C.L. 1979. The acquisition of Siswati as a first language: Morphological study with special reference to noun classes and some agreement markers. Unpublished doctoral thesis. California: UCLA.
- Ladefoged, P. 1975. *A course in phonetics*. New York: Harcourt Brace Jovanovich, Inc.
- Louwrens, L.J. 1981. The relevance of the notions 'given' and 'new' discourse information in the study of Northern Sotho syntax. *South African Journal of African Languages* 1(1):21–49.
- Louwrens, L.J. 1991a. *Aspects of Northern Sotho grammar*. Pretoria: Via Afrika.
- Louwrens, L.J. 1991b. A functional interpretation of some agreement phenomena in Northern Sotho. *South African Journal of African Languages* 11(3):80–83.
- Louwrens, L.J. 2000. Anthropocentrism, utilitarianism and supernaturalism in African world view: some linguistic evidence. *South African Journal of Ethnology* 23 (2/3):91–101.
- Machobane, M. 2003. Variation in Bantu DP structure: Evidence from Sesotho. *Malawian Journal of Linguistics* 3:85–104.
- McGarrity, L.W. & Botne, R. 2001. Between agreement and case marking in Lamnso', in *IUWPL 3: Explorations in African linguistics: From Lamnso' to Sesotho*, edited by R. Botne and R. Vondrasek. Bloomington, Indiana: Indiana Linguistics Club:25–35.
- Manzini, M.R. 1983. On control and control theory. *Linguistic Inquiry* 14:421–446.
- Meinhof, C. 1932. *Introduction to the phonology of the Bantu languages*. Witwatersrand: Council of Education.
- Mufwene, S. 1980. Bantu class prefixes: Inflectional or derivational? *Chicago Linguistic Society* 16:246–258.

- Mulaudzi, P.A. 2000. The 'two-way' formation: the diminutive nouns in the Tshiguvhu dialect of Venda. *South African Journal of African Languages* 20(2):159–164.
- Rizzi, L. 1982. *Issues in Italian syntax*. Dordrecht: Foris.
- Rizzi, L. 1986. Null objects in Italian and the theory of pro. *Linguistic Inquiry* 17:501–558.
- Suzman, S.M. 1980. Acquisition of the noun class system in Zulu. *Papers and reports on child language development*. Stanford: Stanford University 19:45–52.
- Suzman, S.M. 1991. Language acquisition in Zulu. Unpublished doctoral thesis. Johannesburg: University of the Witwatersrand.
- Tsonope, J. 1987. The acquisition of Setswana noun class and agreement morphology, with reference to demonstratives and possessives. Unpublished doctoral thesis, Buffalo: SUNY.
- Visser, M. 2001. The category DP in Xhosa and Northern Sotho: A comparative syntax. In *Ahead of time: Studies in African languages presented in honour of Nompumelelo Jafta*, edited by H. Thipa. Howick: Brevitaqs:108–127.
- Voorhoeve, J. 1968. Noun classes in Bamileke. *Lingua* 21:584–93.
- Ziesler, Yasmine L. & Demuth, K. 1995. Noun class prefixes in Sesotho child-directed speech, in *Proceedings of the 26th annual child language research forum*, edited by E. Clark. Stanford: CSLI:137–146.