

Suffix Ordering Rules: The Case of the Reciprocal, Applicative and Causative Verb Extensions in Sesotho

by

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Abstract

This article analyses the occurrence of the reciprocal verb extension in Sesotho. It also looks at a combination of the reciprocal with other extensions, particularly the causative and applicative verb extensions. To achieve this, the article answers the following questions:

- (a) To what kind of verbs can the reciprocal extension be added directly?
- (b) What is the sequence in the combinations of the reciprocal, applicative and causative extensions?

Introduction

In Sesotho, like most other Bantu languages, verbs can be extended using verb extensions to express additional grammatical information. Some of the verb extensions by which verbs can be extended include the reciprocal, causative, applicative, neuter and passive as shown by the components in bold in 1(b)-(f) below, respectively:

- (1) (a) *Lineo o hlatsoa ngoana.*
1-Lineo 1-AGR-wash- child
'Lineo washes a child.'
- (b) *Lineo le ngoana ba hlatso **-an-a**.* (Reciprocal)
1-Lineo and child 2-AGR-wash-REC
'Lineo and the child are washing each other.'
- (c) *Lineo o hlatso-**is-a** ngoana liphahlo.*
1-Lineo 1-AGR-wash-CAUS child clothes
'Lineo makes her child wash clothes.'
- (d) *Lineo o hlatso-**ets-a** ngoana liphahlo*
1-Lineo 1-AGR-wash-APPL child clothes
'Lineo washes clothes for her child.'

- (e) *Liphahlo lia hlatso-eh-a.*
10-Clothes 10-AGR-wash-NEU
'Clothes are washable.'
- (f) *Ngoana o hlatso-uo-a ke Lineo.*
1-Child 1-AGR- wash-PASS by Lineo
'The child is washed by Lineo.'

In Sesotho, it is also possible to add two or more verb extensions to the same verb to further vary the meaning of the verb as can be seen in the examples provided below:

- (2) (a) *Lineo le Thato ba rok-el-an-a mose.*
1-Lineo and 1-Thato 2-AGR-sew-APPL-REC 3-dress
'Lineo and Thato sew a dress for each other.'
- (b) *Lineo le Thato ba em-is-ets-an-a koloi.*
1-Lineo and 1-Thato 2-AGR-stop-CAUS-APPL-REC 9-vehicle
'Lineo and Thato stop the vehicle for each other.'

The reciprocal, as shown in 1(b), is one of the verbal extensions in Sesotho. This extension is represented by the morpheme *-an-* and like other verb extensions, it is suffixed to the verb to vary the meaning of the verb. This extension means that the action denoted by the verb is done to one another. In some instances, the addition of the reciprocal to some verbs leads to unacceptable constructions as illustrated below:

- (3) (a) *Lineo o roka mose*
1-Lineo 1-AGR-sew dress
'Lineo sews a dress.'
- (b) **Lineo le mose ba rok-an-a.*
1-Lineo and 3-dress 2-AGR-sew-REC
*'Lineo and a dress sew each other.'

As can be seen in 3(b) above, the reciprocal is selective in its usage in Sesotho. There are some verb radicals to which the reciprocal cannot be attached to directly as in **rok-an-a* 'sew each other' in 3(b) above. In addition, there are restrictions on the combination of verb extensions within the same word in Sesotho. For instance, *bitsa* 'call' can be *bits-an-a* 'call each other' with the reciprocal but **bitso-an-a* 'be called each other' where the reciprocal follows the passive extension, is unacceptable. It is the intention of this article to discuss the occurrence of the reciprocal in the Sesotho. Specifically, the article looks at the combinations of the reciprocal extension with the applicative

and causative extensions. The applied extension indicates action applied on behalf of somebody/something, towards or with regard to some object. According to Doke and Mofokeng (1985), the sense of the applied form is often supplied in English by prepositions or prepositional phrases such as 'for', 'on behalf of', 'to the detriment of', 'towards', 'to', etc. In Sesotho, the applicative extension can take the forms -el-, -ets-, etc. The causative extension signifies actions being caused to be done, made to be acted on, caused to be done, etc. The extension is realised with the shapes -is-, -es-, -nts-, -y-, etc. The reciprocal extension is manifested as -ahan- and -an- (refer to Guma 1975). It denotes an action being performed on or to each other and may indicate that two or more objects are associated together in the action of the verb (Doke and Mofokeng, 1985).

Data Collection Methods

The data that were used for the discussion of the occurrence of the reciprocal were obtained from various sources. Some of the data were collected from native speakers of Sesotho while some of it was obtained from various kinds of written sources of the language such as grammars, dictionaries, readers, etc. Although the data were mostly obtained from native speakers of the language, written sources of the language were consulted to avoid falling into an unconscious bias consisting in looking for data which suits one's objectives. The importance of the involvement of native speakers in linguistic studies is well recognised in linguistics. In respect of this, Atkinson *et. al.*, (1982: 38) point out that if:

The linguist is a native speaker of the language he is investigating, he will be able to distinguish between well-formed and ill-formed strings of words.... and is entitled to invent sentences and non-sentences to formulate and test his hypotheses.

Similarly, Horrocks (1987:11) observes that:

There are many phenomena which all native speakers are aware of but which would never become known to the linguist no matter how many utterances he collected.

Data collection and analysis were carried out in phases as follows. Firstly, the writers collected a substantial amount of data from written sources in the language. Secondly, using one of the writers' knowledge of Sesotho, she checked the data collected, eliminating those that were dubious. The third phase consisted in sorting out the data and identifying situations of the occurrence of the reciprocal extension.

Theoretical Perspectives

Our discussion of the occurrence of the reciprocal extension draws theoretical perspectives from lexical morphology. Spencer (1991) indicates that this theory was initially proposed by Chomsky in 1970. According to Bauer (1988), lexical morphology stipulates that derivational and also inflectional morphology must be dealt with in the lexicon. Lexical morphology regards the word as the central unit of morphological analysis. Katamba (1993) further postulates that proponents of lexical morphology claim that there is a relationship between the rules that build the morphological structure of the word and the phonological rules. These rules are found in the lexicon. The central principle of lexical morphology is that the morphological component of grammar is organised in a series of hierarchical strata where affixes are attached to the bases at these different strata. Affixes are also said to be organised into two broad categories, neutral and non-neutral affixes. Neutral affixes have no effect on the base to which they are attached while non-neutral affixes affect the base to which they are attached. The non-neutral affixes may affect the segmental or suprasegmental structure of the base to which they are attached.

In line with the theoretical perspective chosen for our discussion, it can be said that the reciprocal, applicative and causative extensions are all neutral affixes. This is because they do not affect the segmental and suprasegmental structure of the bases to which they are attached (refer also to Machobane, 1989). In our application of the concept of strata, we will not consider these in terms of neutral and non-neutral affixes since the extensions we are discussing will all belong to one stratum. Instead, we will be more concerned with the ordering of these extensions in terms of which extension precedes the other and the basis for this ordering.

Lexical morphology also embodies the notion of Elsewhere Condition. This condition is proposed to assure the priority of the application of rules especially to guarantee the priority in the application of restricted rules over the general rules. This condition is created to cater for situations where rules bleed each other. Rules bleed each other or are in a bleeding relationship if two or more rules target the same type of structure or input. These rules cannot all apply to that structure at the same time, only one of them can apply and after it has applied, it destroys the condition for others to apply. It is in this case that the Elsewhere Condition advocates that rules should apply starting with the most restricted rules applying to a narrow specific

subclass and ending with the most general rules which apply elsewhere. There is also a feeding relationship between rules. A rule feeds another rule if it creates the necessary environment for that rule to apply. Otherwise, the second rule cannot apply. The Elsewhere Condition of lexical morphology is relevant in classifying the verbal radicals that allow the reciprocal to apply and showing the possible combinations of the reciprocal, causative and applicative extensions. In this article, we attempt to establish the feeding and bleeding relationships between these extensions.

Classification of Verbs with the Use of the Reciprocal Extension in Sesotho

As has been stated in the introduction, the reciprocal in Sesotho cannot be attached to every verbal radical. There are some verbs to which the reciprocal can be attached to directly while with other verbs, there are restrictions in the attachment of the reciprocal as illustrated below:

- (4) (a) *Pule le Thabo ba rut-an-a*
 1-Pule and 1-Thabo 2-AGR-teach-REC
 'Pule and Thabo teach other Sesotho.'
- (b) *Pule le Thabo ba rat-an-a.*
 1-Pule and 1-Thabo 2-AGR-teach-REC
 'Pule and Thabo love each other.'
- (5) (a) **Pule le buka ba bal-an-a.*
 1-Pule and 9-book 2-AGR-read-REC
 *'Pule and the book read each other.'
- (b) **Pule le Thabo ba apar-an-a.*
 1-Pule and 1-Thabo 2-AGR-put on-REC
 *'Pule and Thabo put on each other.'

The sentences in 4 are acceptable with the reciprocal because they indicate associative meaning where the action denoted by the verb is done to each other. In these sentences, two people do the action to one another. As for the sentences in 5, there is no interaction between the arguments. In 5(a) for instance, *Pule* and a book cannot do the action to each other because the book is incapable of doing the action denoted by the verb above as it is inanimate.

Seidl and Dimitriadis (nd) state that the reciprocal extension requires transitive verbs since they are two-place predicates. All the verbs provided in the examples in (4) and (5) above are transitive verbs; they are two-place-predicates. However, despite the transitivity of *bala* 'read' and *apara* 'put on', the attachment of the reciprocal suffix to these verbs results in unacceptable sentences as exemplified in 5(a) and (b) above. Although *bala* 'read' and *apara* 'put on' are two-place-predicates like *ruta* 'teach' and *rata* 'love', *bala* and *apara* require inanimate objects while *ruta* and *rata* require animate objects. Hence, apart from the aspect of transitivity, the verbs that can take the reciprocal should also have animate objects, capable of carrying out the action denoted by the verb.

According to Seidl and Dimitriadis (nd), the reciprocalisation operation itself introduces the semantics of reciprocity between the two arguments of the reciprocal verb inclusive of plurality of relations. The plurality relations are marked in all sentences provided above. This relation is marked by *ba*, the class two subject concord which marks the plurality of nouns in class one. In this case, we cannot say that sentences in 5(a) and (b) are unacceptable because there is no plurality relationship in them.

What is lacking in the sentences in 5 is the reciprocity. Reciprocity is the reciprocal condition where one gives or does the action to another person in return for the same action to be done to oneself. In 5(a) for instance, *Pule* reads the book and to show reciprocity, the book has to do the same action denoted by the predicate that is 'read' to *Pule*. It is, therefore, realised that a book cannot do this action because it is inanimate, only human beings can read. Concerning 5(b) where two people do the action to each other, the sentence is still unacceptable because the verb *apara* 'put on' requires an inanimate object in addition to the two animate objects provided in the sentence.

In conclusion, we can say that verbs to which the reciprocal can be attached directly are those that require and permit two animate arguments in order for these arguments to do the action denoted by the verb to each other. This associative property lacks in verbs which take inanimate objects.

The Possible Combinations of the Applicative, Causative and Reciprocal Extensions in Sesotho and the Elsewhere Condition

In the previous section, it has been shown that the reciprocal cannot be attached to all Sesotho verbs. This section intends to outline the possible combinations of the applicative, causative and reciprocal suffixes in Sesotho. Consider the sentences below:

- (6) (a) *Metsi a bela.*
5-Water 5-AGR-boil
'Water is boiling.'
- (b) *'M'e o bel-is-a metsi.*
1-Mother 1-AGR-boil-CAUS 9-water
'My mother makes water boil.'
- (c) *Metsi a bel-el-a kantle.*
5-Water 5-AGR-boil-APPL outside
'Water is boiling outside.'
- (d) *'M'e o bel-is-ets-a metsi kantle.*
1-Mother 1-AGR-boil-CAUS-APPL 9-water outside
'My mother makes water boil outside.'
- (e) *'M'e le Palesa ba bel-is-et-san-a metsi kantle.*
1-Mother and 1-Palesa 2AGR-boil-CAUS-APPL-REC 9-water
outside
'My mother and Palesa boil water for each other outside.'

The combination of the applicative and the causative extensions is possible in Sesotho (refer also to Machobane (1989, 1993). The order as shown in the examples in (6) above is as follows: the causative precedes the applicative while the applicative precedes the reciprocal. According to Katamba (1993), lexical morphology advocates that the most restricted rules which apply to a narrowly specified subclass apply first ending with the general rules. Considering the examples in (6) the attachment of the causative extension can be said to apply to a limited category of verbs while the applicative extension is suffixed to a much more general category of verbs.

There are instances where the causative cannot apply. It cannot be attached to verbs like *thusa* 'help' to form **thusisa* 'make to help' but *thusa* 'help' can be used with the applicative to form *thusetsa* 'help somebody' although it does not have the idiosyncratic meaning of the applicative 'to help for'. Also, a verb like *fa* 'give' does not allow the causative to be attached. For example, *fa* cannot be **fisa* or **fesa* 'cause to give' but it can be *fela* 'give (locative)' and *fella* 'give at (locative)' with the applicative suffix. In this case the applicative verb argument is not beneficiary but location.

Hyman (2002) states that the principle concerning suffix ordering when the applicative, causative and reciprocal are involved in Bantu languages is 'causative first.' Thereafter the causative can be followed by the applicative and the reciprocal and results in words like *ch-es-ets-an-a* 'cause to burn for each other'. However, it is possible to attach the applicative directly to a

verb without the causative as in *bina* 'sing' which becomes *bin-el-a* 'sing for'. On the other hand, once the applicative has been attached to a verb, it destroys the environment for the causative to be attached. Hence, the applicative bleeds the causative as can be seen in *bina* 'sing' where **bin-el-is-a* is unacceptable.

However, it would seem as though there are verbs marked with applicative, which allow the causative to be attached. These verbs are *shoba* 'take recklessly' and *qeta* 'finish'. They take the applicative and form *shobela* 'take recklessly to' or 'elope' and *qetela* 'finish up'. In these examples, the applicative does not denote the meaning to do for. *Shobela* and *qetela* can take the causative and form *shobelisa* 'make to elope' and *qetelisa* 'make finishing touches', respectfully. The meanings of these verbs have completely changed to justify that a new word has been formed by using the applicative.

According to Good (nd), where the order is not productive, he states that the suffix is lexicalised as part of that verb. It is, therefore, appropriate to say that the applicative attached to *shoba* and *qeta* is lexicalised. Further evidence of this is that another applicative extension *-ets-* can be attached to these words after the causative extension *-is-* has been attached to form *shobel-is-ets-a* 'cause to elope for'. This is because the causative extension feeds the applicative, hence, whenever the causative extension is added it is possible to add the applicative.

Other combinations which are possible are the use of the causative together with the reciprocal to form words like, *j-es-an-a* 'cause each other to eat' *hlo-es-an-a* 'help each other to climb', *rek-is-an-a* 'cause each other to buy' and *bin-t's-an-a* 'make each other sing'. The combination of the applicative and the reciprocal extensions is also acceptable and results in words such as *bin-el-an-a* 'sing for each other' and *rokelana* 'sew for each other'

The causative and the applicative extensions are attached before the reciprocal extension because they create the necessary environment for the reciprocal extension to be added. This is especially the case for the verbs to which the reciprocal extension cannot be attached to directly. The causative and the applicative feed the reciprocal. That is, they create the necessary environment for the reciprocal to be added to a verbal radical. For words such as *roka* 'sew', *bala* 'read' and *bula* 'open', the applicative or the causative must be attached before the reciprocal because if the reciprocal is attached first, it would bleed the attachment of the other extensions. It is unacceptable for *bula* 'open' to become **bul-an-el-a* 'open each other for.' To make this verb acceptable, the applicative or the causative must be attached to form the following words; *bul-el-an-a* 'open for each other'. The

attachment of the causative preceding the reciprocal forms *bul-is-an-a* 'make open for each other'.

The order where the applicative and the causative are preceded by the reciprocal is restricted because in such cases, the reciprocal would bleed the causative and the applicative. Such a combination would for instance form words like **bin-an-el-a* 'sing each other for' and **hlo-an-es-a* 'climb each other make to' which are unacceptable because the reciprocal destroys the environment to which the applicative and causative extensions can apply.

The combination of the causative, applicative and reciprocal is also possible in Sesotho as indicated in example 6(e) above. This combination is rarely used in speech and is not as productive as the combinations of the causative and applicative extensions mentioned earlier in this section. This combination is also found with words where one of the extensions is lexicalised. For example, the words *reka* 'buy' and *tla* 'come' form *rek-is-a* 'cause to buy' and *tl-is-a* 'cause to come', respectively. Where the causative extension suffixed to these words is lexicalised, *rekisa* means 'sell' and *tlisa* means 'bring'. In these words the causative meaning is implicitly expressed. Unlike the lexicalised applicative where another applicative extension can be used for instance, to form words like *shob-el-l-a* 'elope to', the causative extension cannot follow the lexicalised causative extension because two causative extensions attached following one another form the intensive extension like in *bala* 'read' *bal-is-is-a* 'read intensively'.

The applicative and the reciprocal can be attached to *rekisa* 'sell' and *tlisa* 'bring' to form *rek-is-ets-an-a* 'sell for each other' and *tl-is-ets-an-a* 'bring to each other'. In this combination, the relationship between these extensions is that the causative feeds the applicative and applicative feeds the reciprocal. This order of extensions is restricted to a limited category of verbs. Other examples of verbs with lexicalised causative extension combined with the applicative and the reciprocal are *tlosa* 'remove' which becomes *tlo-s-ets-an-a* 'remove for each other' and *emisa* 'stop' which becomes *em-is-ets-an-a* 'stop for each other'.

Stratum Ordering of the Reciprocal, Applicative and Causative Verb Extensions in Sesotho

We now discuss the stratum ordering of the applicative, causative and reciprocal extensions in Sesotho. In doing so, we have taken into consideration Machobane's (1989) view that the distinction of neutral and non-neutral affixes cannot be used to account for the suffix ordering in Sesotho since the stress and tonal pattern of most words in Sesotho may not change

with the addition of the affixes. She argues that there seems to be no independent justification for applying the neutral/non-neutral distinctive to the Sesotho applicative and causative extensions. Her reason is that these extensions display no obvious phonological differences comparable to those noted in the case of English neutral and non-neutral suffixes. On the basis of English, advocates of lexical morphology place neutral affixes at the first stratum. This is where the extensions under discussion belong.

In view of what has been said in the previous paragraph, our stratum ordering presented in (7) below is based on the acceptability and unacceptability of the resulting verbs that is, feeding and bleeding relationships that exist between the extensions concerned. Hence, on the basis of the ordering of the reciprocal, applicative and causative extensions in Sesotho, we are advocating for further substrata within the strata recognised in lexical morphology. This is because within the categories of neutral and non-neutral affixes occurring at various strata, there is a further hierarchical order in which the various affixes at the various strata are organised. From the discussion above, we have pointed out that the causative precedes the applicative while the applicative precedes the reciprocal when they are attached to a single base. Hence, within the first strata of neutral affixes where the extensions belong, these extensions belong to various substrata. We illustrate this with the example below:

- (7) *apara* (put on) Root
- |
- ap-es -a* (make to put on) - attachment of the causative (Stratum 1- substratum 1)
- |
- ap-es-ets-a* (make to put on (location))-addition of the applicative (Stratum 1- substratum 2)
- |
- ap-es-ets-an-a* (make each other put on)- attachment of the reciprocal (Stratum 1- substratum 3)

The illustration in (7) above means that if the reciprocal, applicative and causative extensions are all attached to the same verb, the causative should be attached first, followed by the applicative and then the reciprocal. It can also be noted that the substratum levels are determined by the fact that these extensions are not attached to bases at the same time. Some extensions have to be attached before other extensions are attached. As can be seen from the example above, in stratum I substratum 1, the causative is attached to the

verb first and the meaning of the verb changes to 'cause to or make to'. In stratum 1 substratum 2, the applicative is attached to the verb after the causative has been attached, hence the meaning of the verb changes because of the addition of 'do for'. The reciprocal is attached in stratum 1 substratum 3. This also affects the meaning of the verb. We get additional meaning of the action denoted by the verb being 'made to be done to each other for'.

In conclusion, it can be said that from the evidence provided above, the causative can combine with the applicative; it can also combine with the reciprocal. In turn, the applicative can combine with the reciprocal. It has also been shown that when the three extensions, that is, the causative, the applicative and the reciprocal are attached to the same verb, they combine in the following order: causative-applicative-reciprocal. These verb extensions are in a feeding relationship in that the causative feeds the applicative and the applicative feeds the reciprocal. This feeding relationship leads to three substrata within the first stratum of neutral affixes proposed in lexical morphology. In the first substratum, the causative is suffixed to the verb, in substratum 2 the applicative is added and in substratum 3, the reciprocal is added. The fact that these extensions have different meanings and are not attached at the same time is possible justification that they belong to different substratum.

General Conclusion

The conclusion reached concerning the kind of verbs that take the reciprocal directly is that these verbs should be transitive verbs. They should also be verbs that take animate objects as these objects are capable of returning the actions expressed by the predicate to or for each other.

With regard to the combination of the causative, applicative and reciprocal extensions, it has been shown that the causative is attached first followed by the applicative and then the reciprocal. It has been argued that the attachment of the reciprocal before either the causative or the applicative destroys the environment for the attachment of the causative or the applicative. It has been indicated that the causative must always be suffixed close to the verb at substratum 1; the applicative is added at substratum 2 while the reciprocal is added in the third substratum. This is as noticed by Hyman (2002) with regard to Chichewa. In his analysis of the applicative, causative, reciprocal and passive extensions in Chichewa, Hyman (2002) notes that the suffix ordering facts in Chichewa require the establishment of a fixed, default order and this default suffix ordering is causative-applicative-reciprocal-passive.

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