## Multiple noun class prefixes in Otjiherero<sup>\*</sup>

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### 1. INTRODUCTION

Otjiherero (Namibia, Bantu R 30) has, like many Bantu languages, an articulated noun class system distinguishing 18 basic noun classes. Some classes constitute singular-plural pairings, while others are used for, for example, infinitives or locatives. A number of classes are also used for nominal derivation, where shift from one class to the other conveys, for example, diminutive or augmentative meaning. Morphologically, nouns typically consist of a nominal stem, a noun class prefix, and a vocalic augment or pre-prefix. However some nouns have multiple noun class prefixes. In this paper, we discuss these instances of multiple prefixes and show that the presence of multiple prefixes depends on the one hand on the difference between inflectional use of noun classes (that is, plural formation) and derivational use of noun classes, and on the other hand on the particular classes involved, where three groups of classes can be distinguished: Classes 16, 17 and 18 (the locative classes), classes 3, 11/12, 14a and 15a, and finally all remaining classes. The distribution of multiple prefixes thus shows a heterogeneous aspect of the noun class system, which involves different dimensions of analysis.

## 2. OTJIHERERO NOUNS

Otjiherero has a noun class system familiar from Bantu languages, where nouns are typically formed by combining a nominal stem with a noun class prefix and an augment or pre-prefix.

(1) Herero nominal structure (*omundu* 'person'):



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Otjiherero distinguishes 18 noun classes, presented in Table 1, with some classes divided into sub-classes.<sup>1</sup>

1	o-mu-	omundu	person
2	o-va-	ovandu	persons
1a		mamá	my mother
2a	00-	oomamá	my mothers
3	o-mu-	omutí	tree
4	o-mi-	omití	trees
5	e-	ewe	stone
6	o-ma-	omawe	stones
7	o-tji-	otjihúro	town
8	o-vi-	ovihúro	towns
9	o-(N)-	ongombe	COW
10	o-zo(N)-	ozongombe	COWS
11	o-ru-	oruvyó	knife
12	o-tu-	otuvyó	knives
13	o-ka-	okakambe	horse
14	o-u-	oukambe	horses
14a	o-u-	outá	bow
6+14a	o-ma-u-	omautá	bows
15	o-ku-	okunyanda	to play
15a	o-ku-	okurama	leg
6	o-ma-	omarama	legs
6+15a	o-ma-ku-	omakuíya	thorns
16	pu-	pondjúwó	at/on a house
17	ku-	kondjúwó	towards a house
18	mu-	mondjúwó	in a house

# Table 1Otjiherero noun classes

From the examples in Table 1, the basic morphological and phonological characteristics of the Otjiherero noun class system can be seen. These salient features can be summarized as follows

- The augment is always V-, in fact always o- except for class 5 (e-)
- Noun class prefixes are typically CV (class 1, 2, 3, 4, 6, 7, 8, 11, 12, 13, 15, 16, 17, 18)

<sup>&</sup>lt;sup>1</sup> Classes are numbered following the traditional Bantu numbering system (Meinhof 1910, Maho 1999) and the system proposed in Möhlig et al. (2002), with some slight modifications. All data are based on Möhlig et al. (2002) and Möhlig and Kavari (2008) although a number of incorrect data in the latter were corrected by the first-named author for this paper.

- Exceptional prefixes: V prefix (class 14), *N* prefix (class 9), *zoN* prefix (class 10), no noun class prefix (class 5)
- Exceptional augment/prefix: neither prefix nor augment (class 1a), VV prefix (class 2a), no augment (except in vocative) (locative classes 16-18)

Typical Otjiherero nouns consist of only one noun class prefix. However, in some cases, two noun class prefixes are found, as will be discussed in detail in the following section.

## 3. MULTIPLE PREFIXES

Instances of multiple prefixes in Otjiherero can be found in three contexts: 1) in the formation of plural nouns of classes 14a and 15a, where the presence of multiple prefixes is phonologically determined, 2) in derivation when shifting nouns of classes 11/12, 14a and 15a (and in some cases class 3) into other classes, and 3) in the formation of locative nouns. We will discuss these cases in turn.

## 3.1. Plural

Multiple noun class prefixes occur in the plural formation of classes 14a and 15a. The majority of nouns in class 14a denote abstract concepts such as 'wisdom' or 'goodness', often derived from adjectival stems, which do not have a corresponding plural (2).

(2)	(a) o-u-nóngó	'wisdom' (cl. 14a)
	(b) o-u-wá	'goodness' (< wá 'good') (cl. 14a)
	(c) o-u-néné	'size' (< -néné 'big') (cl. 14a)

However, another set of class 14a nouns, denoting more concrete concepts or abstract concepts which allow a plural conception, has corresponding plural forms in class 6(3).

(3)	(a) o-u-tá	'bow' (cl. 14a)	o-ma-u-tá	'bows' (cl. 6)
	(b) o-u- <u>t</u> úkú	'night' (cl. 14a)	o-ma-u- <u>t</u> úkú	'nights' (cl. 6)
	(c) o-u-átjíri	'truth' (cl. 14a)	o-ma-u-átjíri	'truths' (cl. 6)

As the examples in (3) show, in the class 6 plural of class 14a nouns, the class 6 noun class prefix *ma*- is prefixed to the original class 14a noun class prefix *u*-, which is thus retained. In contrast to plurals of class 15a, to which we turn just now, the class 14a prefix is retained independently of the phonological quality of the nominal stem, which is monosyllabic in (3a) and vowel-initial in (3c).<sup>2</sup>

 $<sup>^2</sup>$  These are relatively typical contexts for phonologically triggered morphological processes in Bantu, for example found in verbal morphology in Swahili (Marten 2002).

However, all examples we have found of class 14a plurals are with H tone initial stems.

Class 15a contains a small number of nouns, many of which are reconstructed for Proto-Bantu (Schadeberg 2003). Like class 14a, plurals of class 15a nouns are in class 6. However, in contrast to plurals of class 14a, the class 15a prefix is normally not retained, as the examples in (4) show.

(4)	(a) o-ku-rama	'leg' (cl. 15a)	o-ma-rama	'legs' (cl. 6)
	(b) o-ku-twí	'ear' (cl. 15a)	o-ma-twí	'ears' (cl. 6)
	(c) o-ku-wókó	'arm' (cl. 15a)	o-ma-wókó	'arms' (cl. 6)

The class 15a prefix is retained, however, in two examples, both of which have vowel-initial stems.

(5)	(a) o-ku-ápa	'arm pit' (cl. 15a)	o-ma-ku-ápa	'arm pits' (cl. 6)
	(b) o-ku-íya	'thorn' (cl. 15a)	o-ma-ku-íya	'thorns' (cl. 6)

The retention of the original class 15a prefix ku- is thus subject to phonological conditions. Due to the fact that there are only two relevant examples in the language (5a, b), the exact phonological conditions responsible for prefix retention are difficult to ascertain fully. We have noted that both stems in (5a, b) are vowel-initial, however, two other possible analyses are available. On the one hand, the retention of the second class prefix might be related to the shortness of the nominal stem. The initial vowel of the stem loses its syllabic status if preceded by another vowel (the above are [-kwapa] and [-kwiya] respectively), and so the remaining stem is monosyllabic. However, the loss of the class 15a prefix in (4b) with the monosyllabic stem -twi provides evidence against a weight-related analysis of prefix retention. A second potential analysis is to assume that the original prefix is retained when the following nominal stem is H initial, as in (5a). While (5b, c) appear to contradict this analysis, the counterexamples disappear under the assumption that the glide /w/ is underlyingly a L toned /u/:  $-twi < \circ tui$ and  $-w \delta k \delta < \circ u \delta k \delta$ . This analysis would provide the same explanation for prefix retention with class 14a and 15a, as all nominal stems in (3) are H initial, as noted above. However, the amount of relevant lexical items found in the language is ultimately too small to provide decisive evidence for one or the other of these analyses, and so we conclude by noting that prefix retention with class 15a plurals is related to phonological factors, although it remains unclear which phonological factor exactly this is.

## 3.2 Derivation

A second domain where multiple prefixes occur is in the context of the derivational use of noun classes. Otjiherero nouns can be shifted into other noun classes with systematic semantic effect. Class shift into class 5/6 results in a derogatory interpretation, often with an augmentative implication (6), class shift into class 7/8 has an augmentative interpretation, often with a derogatory

implication (7), class shift into class 11/12 results in length and/or thinness, often in a derogatory sense (8), and class shift into class 13/14 results in diminutives (9).

(6)	(a) o-ka-mbíhí	'cat' (cl. 13)	e-mbíhí	(big) ugly cat' (cl. 5)
	(b) o-mu-rúméno	lú 'man' (cl.1)	e-rúméndú	(big) ugly man' (cl. 5)
(7)	(a) o-ka-mbíhí (b) o-mu-ndu	'cat' (cl. 13) 'person' (cl. 1)	o-tji-mbíhí o-vi-mbíhí o-tji-ndu o-vi-ndu	<ul> <li>'big (ugly) cat' (cl. 7)</li> <li>'big (ugly) cats' (cl. 8)</li> <li>'big (ugly) person' (cl. 7)</li> <li>'big (ugly) people' (cl. 8)</li> </ul>
(8)	(a) o-ka-mbíhí (b) o-mu-ndu	'cat' (cl. 13) 'person' (cl.1)	o-ru-mbíhí o-tu-mbíhí o-ru-ndu o-tu-ndu	'long, thin cat' (cl. 11) 'long, thin cats' (cl. 12) 'long/tall person' (cl. 11) 'long/tall people' (cl. 12)
(9)	(a)o-nyósé	'star' (cl. 9)	o-ka-nyósé	'little star' (cl. 13)
	(b) o-zo-nyósé	'stars' (cl. 10)	o-u-nyósé	'little stars' (cl. 13)
	(c) o-mu-ndu	'person' (cl. 1)	o-ka-ndu	'small person' (cl. 13)
	(d) e-we	'stone' (cl. 5)	o-ka-we	'diamond' (cl. 13)
	(e) o-ma-we	'stones' (cl. 6)	o-u-we	'diamonds' (cl. 14)

As the examples above show, the original noun class prefix is not normally retained in class shift. However this is not true for all classes. When nouns are shifted from classes 11/12, 14a and 15a, they retain their original prefixes:

(10)	(a) o-ru-ng (b) o-ru-ng (c) o-ru-ny	uvízé 'soot' (cl. 11)	o-tji-ru-nguru o-ka-ru-ngúvíz o-tji-ru-nyárá	<ul><li>'big quiver' (cl. 7)</li><li>'soot particles' (cl. 13)</li><li>'big bowl' (cl 11)</li></ul>
(11)	o-tu-vyó	'knives' (cl. 12)	o-u-tu-vyó	'small knives' (cl. 14)
(12)	o-u-tá	'bow' (cl. 14a)	o-ka-u-tá	'small bow' (cl. 13)
(13)	o-ku-íyá	'thorn' (cl. 15a)	o-tji-ku-íyá	'big thorns' (cl. 6)

Derived nouns from these classes thus illustrate nominal structure with two prefixes as shown in (14).

#### (14) Herero nominal structure 2 (*okaruvyo* 'small knife'):



As the examples in (10) show, in derivation the original prefix is retained irrespective of the phonological quality of the stem. The relevant condition for prefix retention is thus morphological, a function of the particular class involved. However, there is some evidence which shows that the retained prefix loses its grammatical information. On the one hand, it is not syntactically active in agreement relations.

(15) (a) o-ru-vyó rw-ándje AUG-11-knife 11-my 'my knife'
(b) o-tji-ru-vyó tj-ándje / \* rw-ándje AUG-7-11-knife 7-my 'my big knife'

When a derived noun with two noun class prefixes is modified, for example by a possessive pronoun, the agreement is invariable with the class of derivational noun class, not with the original one. The retained prefix is thus inactive in agreement. Secondly, the two prefixes do not need to be consistent with respect to number. In the derived noun in (16a), the two prefixes tji- (class 7) and ru- (class 11) are both singular prefixes. However, in (16b), the derived noun is a plural noun of the plural class 8 (vi-), yet the originally singular prefix ru- is retained. The example in (16c) shows that the class 8 plural noun can also be derived from the class 12 plural noun *otuvyó*, where both prefixes are plural prefixes

(16)	(a) o-ru-vyó	'knife' (cl. 11)	o-tji-ru-vyó	'big (ugly) knife' (cl. 7)
	(b)		o-vi-ru-vyó	'big (ugly) knives' (cl. 8)
	(c)o-tu-vyó	'knives' (al. 12)	o-vi-tu-vyó	'big (ugly) knives' (cl. 8)

The example in (16b) thus shows that the retained prefix does not retain its number features. It does not contribute to the number value of the noun, and can be used with a grammatically active plural prefix without leading to ungrammaticality due to a clash of number features. Prefix retention in noun derivation is thus morphologically constrained, depending on the noun class or the original noun, but the actual prefix which is retained is not morphologically or grammatically active.

A special case is found with nouns in class 3, where in some case, multiple prefixes are found, but not in others. In (17a-c), the class 3 prefix *mu*- is retained.

(17)	(a) o-mu-tímá	'heart' (cl. 3)	o-ka-mu-tímá	'small heart' (cl. 13)
	(b)		o-tji-mu-tímá	'big heart' (cl. 7)
	(c) o-mu-nwé	'finger' (cl. 3)	o-ka-mu-nwé	'small finger' (cl. 13)

However, in the examples in (18), all involving the stem *-ti*, in (18a-d) the original prefix is retained, while in (18e-g) the prefix is not maintained.

(18)	(a) o-mu-tí (b) (c) (d)	'tree' (cl. 3)	e-mu-tí o-ru-mu-tí o-tu-mu-tí o-ka-mu-tí	'(big) ugly tree' (cl. 5) 'long, thin tree' (cl. 11) 'long, thin trees' (cl. 12) 'small tree' (cl. 13)
	(e) (f) (g)		o-ka-tí o-ru-tí o-tu-tí	<ul><li>'stick' (cl. 13)</li><li>'long thin stick' (cl. 11)</li><li>'long thin sticks' (cl. 12)</li></ul>

A possible explanation for this is that the form *okatí* in (18e) has been lexicalized as 'stick' and is no longer conceptualised as related to *omutí* 'tree'. However, a similar alternation is found with other terms denoting trees without such a clear possibility of analysing the alternation as a case of lexicalisation.

(19)	(a) o-mu- <u>t</u> áti	'mopane'	(cl. 3)	o-ka-mu- <u>t</u> áti	'small mopane'	(cl. 13)
	(b)			o-ka- <u>t</u> áti 'v	very small mopane	'(cl. 13)

However, in conclusion, it seems clear that in derivation, retention of multiple prefixes is related to the original class of the noun, that is, to morphological reasons. The classes in which the prefix is retained are classes 3 (at least in most cases), 11/12, 14a and 15a. It is not clear if there is a specific morphological or semantic quality which sets these classes apart from other classes. In terms of prefix shape, the group includes all classes with the prefix vowel /u/ (except for the semantically reasonably well-defined human (class 1/2) and locative (classes 16-18)) – although whether this is related to prefix retention remains for the moment unclear.

### 3.3. Locatives

The final group of nouns with multiple prefixes are locative nouns. In contrast to the examples discussed so far, locative nouns retain not only the original noun class prefix, but also the original augment. However, the locative prefixes themselves do not have an augment.

(20)	(a) o-ka-mbíhí	'cat' (cl. 13)	p-o-ka-mbíhí	'at the cat' (cl. 16)
	(b) o-mu-ézé	'moon' (cl. 3)	k-o-mu-ézé	'on the moon' (cl. 17)

The nominal structure of locative nouns is thus different from typical nouns and from derived nouns with multiple prefixes.

(21) Herero nominal structure 3 (*pokambíhí* 'at the cat'):



When locative nouns are formed from class 5 nouns, which do not have a noun class prefix, only the augment is retained.

(22) e-we 'stone' (cl. 5) p-e-we 'at the stone' (cl. 16)

Locative nouns can also be formed with derived nouns, and if these contain multiple prefixes, the locative prefix is prefixed to the derived noun, resulting in forms with three prefixes.

(23)	(a) o-tji-ru-vyó	'big knife'	p-o-tji-ru-vyó	'on the big knife'
		(cl. 7)		(cl. 16)
	(b) o-tu-mu-tí	'tall thin trees'	p-o-tu-mu-tí	'at the tall thin trees'
		(cl. 12)		(cl. 16)

The role of locatives in multiple prefix constructions is thus different from other classes – locative prefixes are the only prefixes which are prefixed to nominal forms with augments.

### 4. CONCLUSIONS

In this paper we have discussed nouns with multiple noun class prefixes in Otjiherero. We have shown that multiple prefixes occur both in the context of plural formation and of nominal derivation through noun class shift. In plural formation, multiple prefixes are found in class 6 nouns which are plurals of class 14a or class 15a. In the former case, all plurals retain the original prefix, while in the latter case, prefix retention is phonologically determined, and is only found with vowel-initial nominal stems. In noun class derivation, multiple prefixes are found in class shift from classes 11/12, 14a and 15a, and in some cases of class 3.

Prefix retention in these cases is found in all instances, and is thus morphologically, rather than phonologically determined. However, the retained prefix loses its morphological and syntactic features, so that retained prefixes are not available for agreement, and can be combined with prefixes of incompatible number features. Finally, we have discussed locative nouns and have proposed that these constitute a different context in which nouns with multiple prefixes arise. The discussion of these examples has led us to propose three different structures of nominals in Otjiherero, one with augment and prefix, a second one with augment and two prefixes, and finally the structure of locatives with a locative prefix followed by an augment and possibly multiple prefixes.

The distribution and function of multiple prefixes in Otjiherero constitutes a good example of the heterogeneity of Bantu noun class systems. Although part of one overall system, with respect to more detailed criteria, noun class systems can be divided into different groups. Semantically, for example, human classes, locative classes, or classes used for personification are often distinguished (cf. Maho 1999). In the present case, we have shown that the noun class system in Otjiherero can be divided into different groups according to morphological criterion of noun class prefix retention. While the majority of classes do not retain prefixes, classes 14a and 15a retain their prefix in plural formation, classes 11/12. 14a and 15a retain their prefixes in class shift, and locatives are prefixed to augments. The division into these three groups is also of interest for the analysis of noun class pairings more generally While plural formation is in some sense the same process as class shift (cf Schadeberg 2001), the difference between the two processes with respect to multiple prefixes shows that the two are distinct processes in Otjiherero.

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