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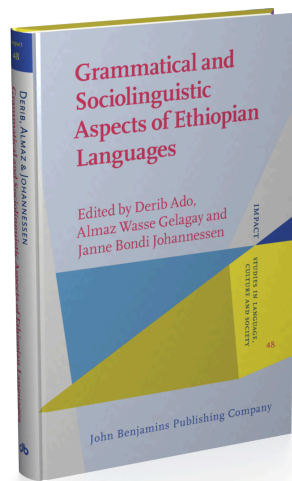
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Number marking in Nuer nouns

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This paper investigates the formation of number in the nouns of Nuer, a Nilo-Saharan language spoken both in South Sudan and Ethiopia. Forming plurals in Nuer is by itself quite irregular: there are many different ways. Suffixing the [-ni] after words that end in sounds other than [l] and [r] is the first way. [l] and [r] take [-i] after them, which is the second way. There are also many other ways of forming a plural from singular, including suppletion, vowel shortening, change in vowel quality and internal vowel modification (this last way is quite unpredictable in nature). There is also a null (\emptyset) formation of plurals with no distinction between singular and plural. Other closely related languages like Dinka (South Sudan) and Anyuak (both Ethiopia and South Sudan), see Reh (1996), share many of the same plural formation processes.

Keywords: Nuer, singular, plural, singulative, suffixation, tone change

1. Introduction

Nuer is the language spoken in two neighboring countries: The Republic of South Sudan to the west and the Federal Democratic Republic of Ethiopia to the east. In Ethiopia it is spoken in Gambella National Regional State situated in the south-western part of Ethiopia. The major languages spoken along with Nuer in Gambella include the local languages Anyuak, which is closely related language to Nuer (Reh 1996), Majang, Opo, Komo as well as highlander languages such as Amharic, Tigrinya, Afaan Oromoo and finally English (as a language of instruction from grade 5). Nuer and its closest relative Dinka fall under the western branch of Nilotic of Nilo-Saharan super family (Bender 1975: 6 and Reh 1996: 250). Nuer became a written language prior to the appearance of the translation of the New Testament that was done in 1963.

This paper investigates number marking on nominative nouns in Jikány dialect of Nuer. Nuer distinguishes between different numbers, and its number inflection is highly irregular. The paper is structured as follows: Section 2 presents the previous

studies, Section 3 deals with methodology, Section 4 presents the present study: the research gap and the findings. Section 5 presents the productivity and concluding remarks are given in Section 5.

2. Literature and the three numbers of Nuer

The literature has shown that Nilo-Saharan languages have extremely rich number-marking systems. According to Dimmendaal (2000: 214), referring to Serzisko (1982), there are two systems of nominal categorization: the numeral-classifier type and the noun-class type. Dimmendaal pointed out that there are two types of noun-class languages, agreeing classification and non-agreeing classification: ‘In the former, nominal modifiers, as well as verbs, may agree with, or are coindexed with, the head noun. In the non-agreeing-classification type, noun-class markers tend to be restricted to nouns’.

Nuer clearly complies with the noun-class type, and further, with the agreeing type. There is number agreement between the noun-phrase and the verb, and there is also noun-phrase-internal agreement, for example between attributive adjectives and the noun they modify, see (1).

(1) Singular	plural
[kʷátʃ mǐːlʷal riŋ-ɛ]	[kʷátʃ nǐːtǐːlʷa:l riŋkɛ]
kʷátʃ mǐːlʷal riŋ-ɛ	kʷátʃ-nǐːtǐːlʷaal riŋ-ke
tiger.SG SPEC.SG red.SG run-3SG	tiger-PL SPEC.PL red.PL run-3PL
‘a red tiger is running’	‘red tigers are running’

Dimmendaal (2000: 214–216) says that in the Nilo-Saharan phylum, there are many languages that distinguish between singulative, plural and replative marking, all of which are also inflected for singular and plural, as in (2), with examples from Masalit language:

(2)	Singular	Plural	Gloss
a. Singulative marking	/barjaŋ-i/	/barjaŋ/	‘shoe’
	/anyiŋ-gi/	/anyiŋ/	‘fly’
b. Plural marking	/mana/	/mana-ta/	‘maternal uncle’
	/daa/	/daa-si/	‘mother’
c. Replative marking	/mal-ko/	/mal-ta/	‘chattel’
	/siren-di/	/siren-i/	‘cooking place’

Dimmendaal does not mention Nuer, and Nuer clearly does not have this tripartite system. Nuer does have singulative in addition to singular and plural, but the replative is not found.

Plural formation in Nuer is quite irregular. Suffixing *-nɿ* after words that end in sounds other than *l* and *r* is one way. *l* and *r* take *-ɿ* after them, being allomorphs of the same morpheme. There are many other ways of deriving a plural from a singular, including suppletion, vowel shortening, change in vowel quality and internal vowel modification, this last way being quite unpredictable in nature. There is also a zero formation of plurals, a case in which there is no distinction between singular and plural. Though with slight differences, Anyuak, a close language to Nuer shares some of these processes of inflection (Reh 1996: 144). Crazzolaro (1933: 28) merely mentioned and described the plural formation in Nuer. The dialect Crazzolaro studied is Yɔaanyaang, one of the varieties spoken in Western Nuer land. It doesn't usually appear on the list of the dialects in the literature I came across, and I am not sure which one it corresponds to from the list provided by Frank (1999) and others.

Frank (1999) described some of these processes in quite a precise way. In previous works, the role of tone, its interaction with vowel quality, lengthening etc., has never been described. This paper describes number marking in Nuer both segmentally and supra-segmentally, and as shall be seen below, each process is a combination of two or more processes. Frank described the same dialect that is used in this study; however, he used the variety called Gaajiook, a south dialect. His study is also less comprehensive than the present one, and he did not include tone change.

According to Baerman (2012), 'the striking feature of Nuer case and number suffixes is their combination of formal simplicity with extreme distributional complexity. On the one hand this is manifested by a wealth of inflection classes that are so poorly differentiated from each other that it looks on the face of it that the bulk of the forms must be memorized'. The title of his paper underlines this: 'Paradigmatic Chaos in Nuer'. Based on Frank's data, it does not include tone change.

The variety under the study here is the Gaajaak variety of Jikāny /dʒɪkɛn/, the dominant variety of Ethiopian Nuer. This paper includes descriptions of the singular as well as tone change, which have not been presented in the previous literature on Nuer.

3. Methodology

The data used in this paper were formally collected from native speakers in Gambella and substantiated through informal discussions with native friends in Addis Ababa. The native intuition of the present researcher has helped in the data analysis, together with the linguistic knowledge the researcher acquired at Addis Ababa University over the last nine or ten years. This paper describes the number marking in Nuer both segmentally and supra-segmentally.

4. The present study

This study identifies some ways of forming plurals from singulars in Nuer. All plural nouns in Nuer are formed by the ways described in this paper. Generally speaking, plural nouns are formed from singular nouns with the addition of plural markers; either, one way plus tone or a combination of more than one way together with tone. Count nouns, collective nouns and mass nouns take singulative markers. This means that every noun in Nuer has a plural and singulative (either marked morphologically or expressed in a clause). Loan words also follow the processes in Tables 1 and 2 (see Section 5). Table 1 summarizes number formation in Nuer. Among the methods of number formation identified by this paper, suffixation is the most frequent.

Each rule is either a segmental or a supra-segmental or a combination of both, as can be seen in the following table and in the examples to follow. Notice that the same process can be used for reverse effect (see also Baerman 2012: 476), such that vowel lengthening of some nouns is used for plural formation, while for other nouns vowel shortening has this function.

There are several ways of forming plurals in Nuer. The main processes identified in research are the following: suffixation, vowel insertion, phonation, vowel quality change, final consonant alternation, vowel deletion, glide insertion, tone change, vowel lengthening, vowel shortening, suppletion and zero (null) formation. There would be more processes if one used the all words in Nuer.

Table 1. Some major types of plural formation in Nuer

Processes			Singular	Plural	Gloss
Segmental		Supra-Segmental			
Suffixation	Suffixation	Tone change	[kʷátʃ] [lúl]	[kʷàtʃnɪ̃] [lùlɪ̃]	‘tiger(s)’ ‘Lul(& friends)’
	Suffixation		tʷàɲ]	[tʷàɲnɪ̃]	‘torch(s)’
	Suffixation	Tone change & vowel shortening	[tʃʷà:l]	tʃʷálɪ̃]	‘sac(s)’
	Suffixation & phonation	Tone change &vowel lengthening	[wâr]	[wâ:ɾɪ̃]	‘shoe(s)’
	Suffixation & vowel quality change& vowel insertion	Tone change & vowel length	[tùrbil]	[tùrbíe:lɪ̃]	‘vehicle(s)’

Table 1. (*continued*)

Processes		Singular	Plural	Gloss
Segmental	Supra-Segmental			
Suffixing & vowel insertion & phonation	Tone change & vowel shortening	[t̪ò:r] [t̪ò:ri]	[t̪òʔrɪ] [t̪òʔrɪ]	'preterm(s)' 'field(s)'
	Tone change	[kôm]	[kòamni]	'chair(s)'
	Vowel shortening	[t̪é:n]	[t̪éni]	'catfish(es)'
Other processes group	Tone change & vowel lengthening	[gát]	[gà:t]	'child(ren)'
	Tone change & vowel shortening	[kà:r]	[kár]	'offspring(s)'
	Tone change	[wùm]	[wúm]	'nose(s)'
Vowel quality change & final consonant change	Tone change	[ròw]	[ròʔ]	'hippo(s)'
Vowel deletion	Tone change	[r̪ál]	[r̪əl]	'quarrel(s)'
Vowel quality change	Tone change	[bíł]	[bèł]	'maize(s)'
Vowel quality change & glide insertion	Tone change	[gʷè:]	[gʷij]	'sandstone(s)'
Suppletion	Tone change	[jân]	[h̪ɔ̌k]	'cow(s)'
		[tít]	[tít]	'hand(s)'

These phonological processes cluster in a variety of different groups. I have given the main ones in Table 1, but there are others as well. Suffixation is used in many of the combinations, and tone change in nearly all, while some plural expressions are quite such as suppletion and zero marking rare.

Table 2. Singular, plural and singulative

No	Singular	Plural	Singulative	Gloss for singulative
<i>Cow</i>	[jân]	[h̪ɔ̌k]	[lʷɔ̌n/ jà::n]	'herd of cattle'
<i>Water</i>	–	[píw]	[piäh]	'much water'
<i>Milk</i>	–	[t̪âk]	[t̪â::k]	'much milk'
<i>Tiger</i>	[kʷát̪]	[kʷát̪]	[kʷà::t̪]	'herd of tigers'
<i>buffalo</i>	[m̪ɔ̌k]	[m̪ɔ̌k]	[mò::k]	'herd of buffalos'

Singulative inflection is lexically determined. Some nouns in Nuer can express singulative as shown in Table 2: with internal vowel modification, vowel length and tone change. Other nouns express singulative with the prenominal specifier, followed by a noun in the singular form (Section 4.12, Example (15)), in which case the form of the noun is similar to the singular. Each rule type is presented in the following subsections.

4.1 Suffixation of -ni/-i

This method employs replacing a vowel i.e. deleting and inserting a vowel as in (3a), suffixing the plural allophone (-i) as in the other examples. It takes not only this but also internal vowel modification, as in (3b), vowel lengthening, again as in (3b), vowel shortening, as in (3d) and vowel insertion, as in (3c). The (-i) suffix works with liquid sounds (3l, r) only. The other one -ni works with other consonants. See these as shown in the examples below. Recall that not all nouns express singulative inflectionally. In those cases the singulative column in (3) and subsequent examples will simply be marked by a hyphen.

(3) Singular	Plural	Singulative
a. [tɔ̃:r]	[tɔ̃rɪ́] tɔ̃r-í prematurely born child-PL '(a) pre-mature born child(ren)'	–
b. [wár]	[wḁ:rɪ́] wḁ:r-í shoe-PL 'shoe(s)'	
c. [tùrbìl]	[tʷɔ̃rbíe:lɪ́] tʷɔ̃rbíe:l-í car-PL 'car(s)'	
d. [tɔ̃:r]	[tɔ̃rɪ́] tɔ̃r-í field-PL 'field(s)'	
e. [rʷàtʃ]	[rʷà:tʃnɪ́] rʷà:tʃ-ní talk-PL 'talk(s)'	–

f. [ŋ ^w ét	[ŋ ^w ètɲí] ŋ ^w èt-ɲí young-PL 'youngster(s)'	-
g. [t ^w átɲí]	[t ^w átɲí] t ^w átɲ-ɲí skin-PL 'skins of small animals'	-
h. [t ^w àɲ]	[t ^w àɲ-ɲí] t ^w àɲ-ɲí torch-PL 'torch(s)'	-
i. [kà:ɲ]	[kà:ɲɲí] ka:ɲ-ɲí trumpet-PL 'trumpet(s)'	-
k. [t ^w ál]	[t ^w álí] t ^w ál-í water lily-PL 'water lilies'	-
l. [t ^w ár]	[t ^w à:rí] t ^w à:r-í song-PL 'songs'	-

As can be seen, the tone, vowel insertion or modification or deletion and suffixation of *-í* work together. For example, in (3a) the long vowel is shortened (length deleted) and */-ä-/* is inserted together with the suffix. The same is true for (3d). In Example (3b) */a/* is changed to */ä:/*, and together with suffix *-í* distinguish the plural from singular. There is also insertion of */-ɔ-/* and an */-ɛ-/* in the first and the second syllables, respectively. The tone also changes as we move from singular to plural. What emerges surfaces as low tone in singulars turns into a level tone in plurals as can be seen with Examples (1a, c and d). In (3b), the high tone follows the pattern taken by the rest of the examples, high becoming low in the plural. The tone of the suffix is always high.

The suffixation */-ɲí/-í* is also used along with internal vowel modification in some words, increase in vowel duration in some words and sometimes on its own for other words. The suffixes *-ɲí* and *-í* are allomorphs of each other.

As can be seen in these examples, the plural forms carry a low tone regardless of whether their singular has low or high tone. The case of (3e) is the only exception in which the low tone appears with both forms, singular and plural, but in which

vowel length intervenes. Again, as the case was with its allomorph /-í/, the tone of the suffix /-ní/ is high throughout the data.

4.2 Increase in vowel duration and tone shift

Increasing the duration of the internal vowel is one of the ways of deriving plural from singular. This process co-occurs with the change in tone, the singulars having high tone while the plural counterparts have a low tone, as shown in the following examples:

(4)	Singular	Plurals	singulative	Gloss
a.	[gát]	[gà:t]	–	‘child(ren)’
b.	[tíet]	[tiɛ:k]	–	‘piece(s) of ground maize’
c.	[gǎ́r]	[gǎ̀:ɾ]	–	‘cultural scar(s) on the face of male Nuer’
d.	[tǎ́k]	[tǎ̀: k]	[tǎ̀::k]	‘ox(en)’
e.	[d͡ʒǎ́ŋ]	[d͡ʒǎ̀:ŋ]	–	‘dinka(s)’
f.	[d͡ʒǎ́l]	[d͡ʒǎ̀: l]	–	‘guest(s)’
i.	[kʷǎ́ɲ]	[kʷǎ̀:ɲ]	[kʷǎ̀::ɲ]	‘slave(s)’

The tone of the above way is low for singulars and high for plurals. Again, there is no vowel alternation, shift or modification in any way. Only (4d and i) have inflected singulatives.

4.3 Vowel shortening and shift in tone

As opposed to the above way of deriving plurals, this method employs the shortening of the stem vowel together with change in tone. The tone of the words varies, depending on the nature of each word.

(5)	Singular	Plural	Singular	Gloss
a.	[ká:r]	[kár]	–	‘offspring(s)’
b.	[mà:r]	[már]	–	‘relation(s)’
c.	[rʷá:l]	[rʷál]	–	‘incest(s)’
d.	[tʷá:r]	[tʷàr]	–	‘bee(s)’

In this method of the singular has a low tone, the plural will take a high tone, for example in (5b), where the low tone falls on singular and the high tone appears with the plural, as opposed to the rest of the examples.

4.4 Change in tone

This way of forming plurals from singulars is done by changing the tone of the word, but without changing anything else: Body parts such as the nose, the head, etc., and others are the best examples, as below:

(6)	Singular	Plural	Singulative	Gloss
a.	[wùm]	[wúm]	–	‘nose(s)’
b.	[wìtʃ]	[wítʃ]	–	‘head(s)’
c.	[mùr]	[múr]	–	‘vagina(s)’
d.	[tʃùl]	[tʃúl]	–	‘penis’
e.	[tùŋ]	[túŋ]	–	‘mucus’
f.	[kùm]	[kúm]	–	‘lit(s) of goards’
g.	[pàm]	[pám]	[pǎ::m]	‘rock/stone/mountain’

As one can see above, the shape of each singular form and its plural counterpart look exactly the same, except in their tone patterns. The singulars have a low tone, while plurals are true opposites. No other aspect of the words has been affected by the formation of the plural.

4.5 Internal vowel and final consonant alternation and tone shift

In this method of plural formation, a change is seen in the root vowel(s) and the final consonant of the word, and tone pattern varies from word to word, i.e. tone irregularities is evidenced, as shown below:

(7)	Singular	Plural	Singulative	Gloss
a.	[ɲàl]	[ɲáɾ]	[ɲà::l]	‘girl(s)’
b.	[ròw]	[róɿ]	–	‘hippopotamus’
c.	[ríǎj]	[riǎɿ]	–	‘canoe(s)’

As with other methods above, the consonant mutation and changes in tone mark the distinction. In this method, as the case might be for the rest of the methods, the tone shift is not predictable. It seems that each word has its own way of forming its plural from the singular. The first two, (7a) and (7b), have the same tone patterns: low tone singulars and high tone plurals. The example in (7c) appears with the opposite tone pattern: high and low for singular and plural, respectively. In contrast to these, the (7d) has low-low for both singular and plural.

4.6 Dropping a vowel and tone shift

Dropping a vowel is another way of plural formation. In this method, only the second vowel is dropped.

(8)	Singular	Plural	Singulative	Gloss
a.	[rɔ̌al]	[rɔ̌l]	–	‘quarrel(s)’
b.	[tɔ̌ar]	[tɔ̌r]	–	‘a kind of plant’
c.	[kɔ̌ar]	[kɔ̌r]	–	‘a tree of acacia family’
d.	[kʷɔ̌:r]	[kúr]	–	‘(one) hundred(s)’
e.	[rʷɔ̌:n]	[rún]	–	‘year(s)’

In this method, the second vowel is dropped as we move from singular to plural. This is accompanied by the shift in tone. Singulars, as we can see in the first three examples do have a falling tone, while plurals have a low tone. The low tone follows the loss of the second vowel /a/ in most cases (of Nuer nouns). On the other hand, if a noun or any word in the language has a vowel /u/ following the onset and is followed by a vowel, that vowel is considered as glide /w/ or phonologically influenced (labialization, palatalization, etc.), given the kind of consonant it follows. In the case of number, this usually, but not always, comes with singulars. The plurals, as can be seen in the examples above, have the second vowel deleted and /u/ is no longer a glide, since it comes with no influence from other sounds. The tone is in variant, as we can see with (8e) as opposed to (8d,f).

4.7 Shift in vowel quality (voice) and tone shift

This ninth way of deriving plurals employs the shift of vowel quality, i.e. moving from plain vowel to its breathy counterpart or from breathy vowel to its plain counterpart. The change of voice in the following examples is unpredictable, as it also involves shifting from one voiceless vowel to a different voiced one, as in the examples and their explanations below:

(9)	Singular	Plural	Singulative	Gloss
a.	[lʷák]	[lʷì:k]	–	‘cattle barn(s)’
b.	[bí]	[bè]	[bɛ̃::l]	‘a lot of maize/corn/grain’
c.	[tíər]	[tiär]	–	‘clitoris(s)’
d.	[kɛ́m]	[kè̃m]	–	‘a kind of tree’
e.	[ròk]	[ró:k]	–	‘robe(s)’
f.	[kɔ̌]	[kòl]	–	‘skin(s)’
g.	[kʷá̃n]	[kʷàn]	[kʷá̃::n]	‘too much food(s)/tuff’
h.	[mɔ̌k]	[mòk]	[mò::k]	‘too many buffalo(es)’

The change in voice quality presented in these examples is not one-way direction. This means that if the vowel of the singular is breathy, then the vowel in its plural counterpart is plain, and the reverse is true. For instance, the vowels in Examples (9a, c, and e) are breathy in their plural forms and non-breathy in their singular forms. Those in (9b, g) are breathy in their singular form and non-breathy in their plurals. On the contrary Examples (9f, h) are breathy both in the singular and plural, but with different qualities. One might also notice the tone variation in each case and the length in certain vowels, as in (9a, e).

4.8 Zero/null formation

Zero formation of the plural is witnessed in the list of words in which the tone is either uniform or absent. The words for ‘hand’, ‘hear’ and ‘buttock’ are the examples of this class of plural formation, as in the following examples:

(10)	Singular	Plural	Singulative	Gloss
a.	[tít]	[tít]	–	‘hand(s)’
b.	[d͡ʒít]	[d͡ʒít]	–	‘ear/ear(s)’
c.	[wòt]	[wòt]	[wà::t]	‘(very big) buttock(s)’

In these words, there is no change in tone, vowel and or anything else, such as suffixation or vowel length. We should therefore call it a zero derivation of plural.

4.9 Addition of glide *j*, vowel change and tone shift

With sounds that are followed by labialization/palatalization, and end in a vowel (most cases), the glide *j* is added to the end of the word in the singular form to form the, as shown in the following examples:

(11)	Singular	Plural	Singulative	Gloss
a.	[tʃʷɛ:]	[tʃʷíj]	[tʃʷɛ::]	‘kind of fish’
b.	[gʷɛ:]	[gʷíj]	–	‘sandstone’
c.	[kʷɔ:k]	[kʷíj]	–	‘thorn’
d.	[miɛ:]	[míj]	–	‘hair animal’s tail’

Some of these nouns seem to be non-count, for example, those in (11a and d) are uncountable. The other two are count nouns. Even in noun(s) that end in other consonants (*-k*) as in (11c) have taken the glide *j* to form the plural. The suffixation of *j* glide comes along with the vowel change and the shift from low tone to high. This might be because *j* is close to the high vowel /*i*/ so that it influences/assimilates the /*ɛ*/, and also because /*i*/ is a high vowel and attracts a high tone.

4.10 Suppletion and tone shift

Another way of deriving plurals is by suppletion, shifting to a completely different word with a completely different shape. This process is quite rare and does not affect many nouns.

(12)	Singular	Plural	Singular	Gloss
a.	[jàŋ]	[hɔ́k]	[jà::ŋ/lʷɔ́ŋ]	‘cow(s)’
b.	[rà:n]	[ná::t̪]	[nàt̪]	‘human being(s)’
c.	[tʃíik]	[màn]	[mǎ::n]	‘women’

The tone patterns of the words in this example differ from example to example. In (12a), the singular carries the falling tone and its plural counterpart has a high tone. On the other hand, the singular has a low tone, while the plural counterpart has just a falling tone. In contrary to (12a) and (12b), in Example (12c) both the plural and singular have a low tone.

4.11 Singulative

Singulative (sgv) targets both the collective nouns mass nouns. The singulative that is said to be particularly found in Nilo-Saharan languages is expressed differently in Nuer. While it is marked morphologically with affixes in many Nilo-Saharan languages, as mentioned by Dimmendaal, the singulative in Nuer is marked: (1) with suppletion and/or internal modification for collective nouns, (2) with the deletion of the glide and/or the internal modification, (3) a combination of both vowel length and modification (change), as presented in Example (13), or (4) it can be expressed with the help of specifier in a clause, as in (12).

(13)	Plural	gloss	singulative	gloss
<i>Collective nouns</i>	a. [hɔ́k]	‘cows’	[lʷɔ́ŋ/jà::ŋ]	‘herd of cattle’
	b. [lèj]	‘animals’	[rʷál]	‘herd of (wild) animals’
	c. [ná:t̪]	‘people’	[bʷɔ́n/nàt̪]	‘group of people’
<i>Mass nouns</i>	d. [piw]	‘water’ (PL)	[piäh]	‘too much water’
	e. [tʃʷɛj]	‘soup’ (PL)	[tʃʷɛ ::]	‘too much soup’
	f. [rʷɛj]	‘saliva’ (PL)	[rʷɛ::]	‘too much saliva’
	g. [tʃàk]	‘milk’ (PL)	[tʃà::k]	‘too much milk’

Count nouns	h.	[wə̀t̪]	[wə̀t̪]	[wə̀t̪::t̪]	‘too big buttock(s)’
	i.	[kʷən]	[kʷən]	[kʷən::n]	too many food stuff
	j.	[mɔ̀k]	[mɔ̀k]	[mɔ̀k::k]	‘to many buffalo(es)’
	k.	[pəm]	[pəm]	[pəm::m]	‘too many rock/mountain’
	l.	[tāk]	[tāk]	[tāk::k]	‘too many ox(en)’

While the words in Examples (13a, b and c) are true plurals that describe collective entities that take many things as a group, those in (13d, e, f and g) describe mass nouns as more than the expected or the amount needed at a time. Lastly, for count nouns, the number of entities (members) of a group exceeds the required or normal amount.

For any noun that does not inflect for singulative as mentioned above, singulative can be expressed with the help of specifier in the clause, as presented in the following examples:

(14)	Singular	Plural	Gloss
a.	[rɔ̀w]	[rɔ̀t̪]	‘hipopotamus(es)’
Clause:	[mí tʃalí rɔ̀w gʷit̪ɛ]		
	mí tʃal-í rɔ̀w gʷit̪-ɛ]		
	SPEC call-NARR hipo see-3SG		
	‘look at what is meant by/called hipo’		
b.	[rɪáj]	[rɪáj̩t̪]	‘canoe(s)’
Clause:	[rɪáj tɛ: pɪn !bà:n]		
	rɪáj tɛ: pɪn !bà:n		
	canoe exist. 3SG down without		
	‘canoe exists without/everywhere’		

In Example (14a and b), the hippopotamus and canoes exist in large numbers and the interpretation of the clause either with the specifier (SPEC) as in (14a) or the preposition (PREP) ‘without’ help make it clear. The singular form is indeed intact, and it represents the addressee as a group, possibly together with the specifier.

5. Productivity

Based on the findings presented in this study, the researcher claims that suffixation and internal modification are more productive than any other process. While internal vowel modification interferes with other processes, such as *-ní/-í*, vowel length, and refers to complete vowel change as well, suffixation incorporates almost

(if not all) the loan words that can be found in this study. The words in the following examples are loan words taken from different languages.

(15)	Singular	Plural	Singulative	Gloss
a.	[tʃɔ:k]	[tʃɔ̌ak-ní]	–	‘chalk(s)’ (English)
b.	[tùrbil]	[tʷɔ̌rbíɛ:l-í]	–	‘vehicle(s)’ (unknown)
c.	[bùrmil]	[bʷɔ̌rmîɛ:l-í]	–	‘barrel(s)’ (Amharic)
d.	[kòmɸɔ̌tèr]	[kòmɸɔ̌tèr-í]	–	‘computer’ (English)
e.	[tələpò:n]	[tələpò:n-ní]	–	‘telephone’ (English)
f.	[tʰæn]	[tʰæn-ní]	–	‘dishes’ (Arabic/Amharic)
g.	[jɔ̌m]	[jɔ̌m]	–	‘tin can’ (Arabic)
h.	[láptɔp]	[láptɔp-ní]	–	‘laptops’ (English)
j.	[téjbòl]	[téjbòl-í]	–	‘table’ (English)
k.	[pɪlʌ̌tʃ]	[pɪlʌ̌tʃ-ní]	–	‘flash’ (English)
l.	[tʃádʒèr]	[tʃádʒèr-í]	–	‘charger’ (English)
m.	[lʌ̌mʌ̌:r]	[lʌ̌mʌ̌:r-í]	–	‘tower’ (Arabic)
o.	[kíj]	[kíj-ní]	–	‘key’ (English)
p.	[rádʲèw]	[rádʲèwní]	–	‘radio’ (English)
q.	[pèn]	[pèn-ní]	–	‘pen’ (English)

Though very rare, there is still evidence that loan words can be internally modified to conform to the process of internal vowel modification, as can be seen in (15q). All the loan words in (15) have suffixes in their plural forms. Loan words only have their singulative expressed in a clausal context.

6. Concluding remarks

In conclusion, tone plays a crucial role in Nuer, generally in all aspects of the language, and particularly in number formation. Suffixation and internal vowel modification are productively the most dominant, since they come with vowel length, complete vowel change and other processes, as well.

In my experience, I have never come across any other language with such an overwhelming system of number marking. Nuer might therefore be the only such language in the Ethiopian context in particular, if not in the world, in general.

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Abbreviations

NARR	Narrative	PREP	Preposition	SG	Singular
Ø	Null	SEPC	Specifier	SGV	Singulative
PL	Plural				

References

- Baerman, Matthew. 2012. Paradigmatic chaos in Nuer. *Language* 88(3): 467–494.
<https://doi.org/10.1353/lan.2012.0065>
- Bender, M. Lionel. 1975. *The Ethiopian Nilo-Saharan*. East Lansing MI: African Studies Center.
- Crazzolara, J. Pasquale. 1933. *Outlines of a Nuer Grammar*. Wien: Verlag der Internationalen Zeitschrift Anthropos.
- Dimmendaal, Gerrit. 2000. Number marking and noun categorization in Nilo-Saharan languages. *Anthropological Linguistics* 42: 214–261.
- Frank, Wright Jay. 1999. Nuer Noun Morphology. MA thesis, New York University.
- Reh, Mechtild. 1996. *Anywa Language: Description and Internal Reconstructions* [Nilo-Saharan: Linguistics Analyses and Documentation 11]. Cologne: Rüdiger Köppe.
- Serzisko, Fritz. 1982. Gender, noun class. And numeral classification: A scale of classificatory techniques. In *Issues in the Theory of Universal Grammar*, René Dirven & Günter Radden (eds), 95–123. Tübingen: Gunter Narr.

