

Predicative tone lowering in Makhuwa*

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1. Introduction

In this paper the tonal phenomenon named ‘Predicative Lowering’ (PL) is discussed for the language Makhuwa. PL is a change in the tonal pattern of nouns, and applies in two different environments: 1. when the noun is used predicatively (1b); 2. when the noun follows a conjoint (CJ) verb form, indicating a (narrow or broader) focus on the following noun (2b).

- | | | | | |
|-----|----|-----------------------|---------------|-------|
| (1) | a. | nakhúku | ‘crow’ | (LHL) |
| | b. | mwaánúni ulá | nakhukú | (LLH) |
| | | 1.bird | 1.DEM 1a.crow | |
| | | ‘this bird is a crow’ | | |
| (2) | a. | nakhúwo | ‘maize’ | (LHL) |
| | b. | CJ ki-n-thítá | nakhuwó | (LLH) |
| | | 1SG-PRES.CJ-pound | 1a.maize | |
| | | ‘I pound maize’ | | |

Section 2 gives some background information about Makhuwa and its tonal system as well as a formal description of the tonal changes involved in PL. The use of PL to form a nominal predicate is illustrated. Section 3 describes the second use of PL and gives more detailed information about the formal aspects of PL. The second function of PL is established as marking focus. Section 4 then explores the relation between the two uses of PL (predication and focus) and attempts to give a diachronic motivation for it, making reference to the Proto-Bantu augment.

2. Makhuwa and Predicative Lowering

2.1 Makhuwa

Makhuwa (Guthrie's P.30; also spelled Macua, Emakhuwa) is a Bantu language spoken in the north of Mozambique and the south of Tanzania. The data in this research are from the variant Enahara, which is spoken on the Ilha de Moçambique and in the surrounding coastal area. Most variants of Makhuwa (including Enahara) are tonal and can be analysed as having a H(igh) and a L(ow) tone. Nouns and verbs have one or two underlying H tones. The position of the H tones is partly determined lexically (nouns) and partly by the grammatical form (nouns, verbs).

An important property of the tonal system of Makhuwa is that H tones come in pairs; that is, the underlying H tones are doubled (Stucky 1979, Katupha 1983). In (3) the underlined vowels indicate the underlying H tones. The first H doubles onto the next tone bearing element, which is the nasal [m]; the second underlying H would normally also double, but since a doubled H on a syllable in utterance final position is not allowed, the doubling does not apply. It is unclear whether this is the result of the distribution of H tones in nouns or retraction of the final H (Stucky 1979).

- (3) /orampelela/ [orámpeléla] 'to swim'

2.2 Predicative Lowering

One way to make a nominal sentence consisting of a predicative noun is by applying a different tonal pattern.¹ As seen in (1) and (4), changing the tonal pattern found in the citation form results in a predicative reading and use of the noun.

- (4) a. nkóle 'coconut palm' (LHL)
 b. ntháli úlá nkolé (LLH)
 3.tree 3.DEM 3.cocopalm
 'this tree is a coconut palm'

The process of PL consists of the loss of the first underlying H tone and with that also its doubling (Stucky 1979, Katupha 1983). It is precisely because of the loss of the H that this process is called Predicative *Lowering* (Schadeberg & Mucanheia 2000). The exact process can be seen in nouns with two underlying H tones. The second H tone remains in the PL form; only the first H is absent (5).

- (5) a. nrín̄ttaá̄la ‘big piece of firewood’
 (LHHLHL)
 b. nrinttaá̄la ‘it is a big piece of firewood’
 (LLLLHL)

Lowered nouns in sentence-final position differ in their tonal surface forms from nouns in non-sentence-final position. Words with only one underlying H lose this H and become entirely L when used predicatively in non-final position. This can be seen in (6), where *eyoóts̄ha* ‘food’ undergoes PL and is not phrase-final because it is modified by *yoóvíha* ‘warm’.

- (6) citation: eyoóts̄há yoóvíha ‘warm food’
 e-n-kí-tsívélá eyootsha yoóvíha
 9-PRES-1SG-please 9.food 9.warm
 ‘what I like is warm food’

Words that lose their single underlying H in predicative form appear in a slightly different form when in sentence-final position: a H tone appears on the last syllable, as shown in (7). This cannot be the original tone that moved to the right, as can be seen in the previous examples where the first underlying H disappears. An analysis based on the boundary tone might be more likely.

- (7) a. namárókolo ‘hare’
 (LHLL)
 b. namarokoló ‘it’s the hare’
 (LLLLH)

3. PL after a conjoint verb form

In order to describe the second use of the tonal lowering, some basics of the Makhuwa grammatical system must first be introduced. The inflection of Makhuwa verbs has pairs of conjugational categories (“tenses”) that refer to the same TAM semantics (Buell 2005), but differ in their “linkage” with what follows the verb. These verb forms are referred to as conjoint (CJ) and disjoint (DJ). They are segmentally marked by different prefixes and indicate a difference in information structure. If the element directly following the verb is in the scope of focus, the verb has its CJ form; if this is not the case, or if the verb is sentence-final (as in (8a)), the verb appears in its DJ form (cf. Creissels 1996).

- (8) a. DJ o-náá-thípa
 3SG-PRES.DJ-dig ‘she is digging’
 b. CJ o-n-thípá nlittí
 3SG-PRES-dig 5.hole ‘she digs a hole’

The two forms are also marked tonally: the element directly following the CJ verb form undergoes “PL” (9a) (cf. Stucky 1979), whereas the element following a DJ form has the same tonal pattern as in its citation form (9b).²

- (9) citation: nakhúwo ‘maize’
 a. CJ ki-n-thítá nakhuwó (LLH)
 1SG-PRES-pound 1a.maize
 ‘I pound *maize*’
 b. DJ ki-náá-thítá nakhúwo (LHL)
 1SG-PRES.DJ-pound 1a.maize
 ‘I pound *maize*’

In what follows more details are provided with respect to PL after a CJ form. Not all elements can undergo PL after a CJ verb form, even when a lowered form exists for the predicative function (11). The exact rules governing the type of word to which PL after a CJ form may apply are not yet clear, but argument-hood and/or semantic roles may be involved. Themes and instrumentals are lowered after a CJ verb form (10a,b) but locatives and adverbs are not (10c,e). If these were lowered after a CJ form, the sentence would not be well-formed (10d,f). The examples in (11) show that it is in fact possible to lower a locative or adverb in predicative use.

- (10) a. meéle ‘fine maize’
 CJ kinthítá meelé ‘I pound fine maize’ (theme)
 b. ni ehípa ‘with a hoe’
 CJ onthípá ni ehipá ‘she digs with a hoe’ (instrument)
 c. nkíntáále ‘on the compound’
 CJ kinthítá nkíntáále ‘I pound on the compound’ (locative)
 d. PL *kinthítá nkintaalé
 e. nańńáano vá ‘right now’
 CJ kinthítá nańńáano vá ‘I pound right now’ (adverb)
 f. PL *kinthítá nannaano vá
- (11) a. ntakhwáni ‘in the woods’ (LLHL)
 o-n-thíkél-iy-á ekokhóla n-takhwani (LLLH)
 17-PRES-bury-PASS-FV 9.rubbish 18-woods
 ‘where the rubbish is buried is in the woods’
 b. meélo ‘tomorrow’ (LHL)
 meeló o-n-rów-ááká wa-totóro (LLH)
 tomorrow ?-PRES-go-REL.1SG 16-doctor
 ‘it is tomorrow that I go to the doctor’

In complex NPs only the first element is lowered, which is generally the noun in Makhuwa. Neither demonstratives nor adjectives are lowered together with the noun, as can be seen in (12a–c), where only the noun *mikhóra* ‘doors’ is lowered, but not the adjective or the demonstrative.³ To see the difference in lowering, the DJ form is also given (12d).^{2,4}

- (12) citation: *mikhóra* ‘doors’
 uúlúpale ‘big’
 íya ‘these’ (cl.4 DEM.)
- a. CJ *ki-m-vára* *mikhóra íya*
 1SG-PRES-touch 4.doors 4.DEM
 ‘I make these doors’
- b. CJ *ki-m-vára* *mikhóra tsuúlúpale*
 1SG-PRES-touch 4.doors 4.big
 ‘I make big doors’
- c. CJ *ki-m-vára* *mikhóra íyá tsuúlúpale*
 1SG-PRES-touch 4.doors 4.DEM 4.big
 ‘I make these big doors’
- d. DJ *ki-náá-vára* *mikhóra íyá tsuúlúpale*
 1SG-PRES.DJ-touch 4.doors 4.DEM 4.big

In double object constructions as in (13) it is also the first element that is lowered, whether this is the direct or indirect object. The second object appears in its non-lowered form. Sentence (13a) is a felicitous answer to the question ‘what did you give to the birds?’ and sentence (13b) to the question ‘who did you give water to?’. Given these contexts of the sentences in (13), it has been argued that the position immediately after the (CJ) verb is a position for focus in Makhuwa (van der Wal 2006). The second function of PL, in its use after the CJ verb form, can be analysed as focus marking.

- (13) citation: *maátsi* ‘water’
 enúni ‘birds’
- a. CJ *ni-m-váhá maatsí enúni*
 1PL-PRES-give 6.water 10.birds
 ‘we give water to the birds’
- b. CJ *ni-m-váhá enuní maátsi*
 1PL-PRES-give 10.birds 6.water
 ‘we give the birds water’

In Ekoti PL is used to put an object in focus, even though this language does not have a CJ/DJ distinction (14). Odden (1995) calls the phenomenon ‘focus lowering’, rather than predicative lowering. Since neither term covers the complete

use or function of the phenomenon, Schadeberg and Mucanheia (2000) decided to use the term “predicative”, which they regard as the more basic use.

Ekoti (Schadeberg & Mucanheia 2000)

- (14) a. ka-m-úuzány-él-a laázu ‘I bought her bananas’
 b. ka-m-úuzány-él-a laazu ‘I bought her *bananas*’
 1SG.REC-1-buy-APPL-FV 5.banana

Predicative Lowering on the one hand and the grammatical system using the CJ/DJ distinction on the other hand are two different focus mechanisms. In northern Mozambique we find three languages that use the one, the other or both strategies. Makwe has a grammatical system which distinguishes CJ/DJ verb forms, but does not use PL for focus (15) (Devos 2004); Ekoti has no clear CJ/DJ system, but indicates focus with PL (Odden 1995, Schadeberg & Mucanheia 2000) and Makhuwa combines the two, as can be seen in Table 1. All three languages use PL for predication.

Makwe (Devos 2004)⁵

- (15) a. CJ uyumiye máyáái| ‘you bought eggs’
 b. DJ uníyúuma| mayaái| ‘you bought eggs’

Table 1. Focus mechanisms in three languages in north Mozambique

	PL-focus	CJ/DJ
Makwe	-	+
Ekoti	+	-
Makhuwa	+	+

4. The relation between the two functions of PL

So far I have shown that the tonal change known as Predicative Lowering occurs in two different contexts, namely predication and focus. Because of the complexity of PL and the similarity in form in its two uses (predication and focus marking), we strongly suspect that there is a relation between the two. So far it has not been possible to show how they can be unified in a synchronic analysis. A diachronic scenario however, seems plausible. Although the following hypothesis constitutes a full research project on its own, I will attempt to describe a possible way in which the two current functions of PL in Makhuwa might have originated.

4.1 PL and the augment

The loss of a H tone to indicate focus is certainly rare cross-linguistically. More common strategies are to mark focus with intonation/stress, using a longer duration, greater loudness and a higher pitch. In tonal languages, pitch is used for lexical or grammatical distinctions and is less often used to indicate information structure. However, in tonal languages too, the focal variant tends to be more complex, morphologically and/or phonologically (Hyman & Watters 1984:252). Why this is not the case in Makhuwa can be explained by taking into account the origin of the tonal change, making reference to the augment.

The augment (also called initial vowel or pre-prefix) is related to a H tone in Proto-Bantu (Greenberg 1972). It is the element attached to a noun before the noun class prefix, as in (16), which shows the structure of a Bantu noun.

Lusoga

(16) o-mú-géní 'guest' (augment-prefix-stem)

From ideas in articles by Schadeberg (1986), Blanchon (1998) and Marten (2005) about the origin of tone case systems in western Bantu languages, the following hypothesis can be deduced: the tone of the nominal stem in Makhuwa (Enahara) reflects a combination of the earlier H tone of the augment and of the original Bantu stem tone. The presence or absence of the H has developed from the presence or absence of the augment.

There are several striking similarities between the use of PL in Makhuwa and the absence of an augment in other Bantu languages that indicate a relation between the two. In what follows I will give three uses of PL in Makhuwa that have an augmentless parallel in another present-day Bantu language. Although most Bantu languages no longer have an alternation between the augmented and augmentless form, the augment still has an active function in Luganda and Lusoga. The predicative form of the noun is derived by omitting the augment in these languages.

Lusoga

(17) o-mú-géní 'guest'
mu-géní 'it is a guest'

Luganda also uses the augmentless form in functions other than predication, such as the focusing of the object (18b). Where Makhuwa uses PL, Luganda omits the augment.⁶

Luganda (Hyman & Katamba 1993)

(18) a. ya-gúla ebí-tábó 'he bought books'
l.PAST-buy 8-books
b. yagúla bitábó 'he bought *books*'

Another hint at the relation between PL and the absence of the augment is provided by vocatives. The vocative is in fact a third environment for PL in Makhuwa (19) and this use has an augmentless parallel in another Bantu language too. In Zulu the distribution of augmentless nouns is restricted, but in vocatives the use is very clear. Luganda also uses the augmentless form for vocatives, but the exact rules are more complicated (Hyman & Katamba 1993). Again we see that Makhuwa uses PL in an environment where other Bantu languages use the augmentless form of the noun.

Makhuwa

- | | | | |
|------|----|------------|--------------------|
| (19) | a. | mwánn' áka | 'my husband' |
| | b. | mwann' aká | 'husband of mine!' |

Zulu (Doke 1945)

- | | | | |
|------|----|---------|---------|
| (20) | a. | abafana | 'boys' |
| | b. | bafana | 'boys!' |

4.2 The diachronic connection

The examples in the previous subsection strengthen the idea that there is a connection between PL and the absence of the augment. In this section the connection is made more precise and the historical relation between the functions of PL is made explicit. The augment has been reconstructed for Proto-Bantu with a H tone (De Blois 1970). It can be assumed that in the Proto-Bantu stage the function of the augment was determinative (De Blois 1970) or definite (Greenberg 1972, Blanchon 1998). In the Bantu languages more to the west (in Angola, Congo), a scenario of generalization of this definite H has been developed (Blanchon 1998) where the H of the augment eventually became a grammatical part of the noun, without (active) function. More to the east, we find some languages that still use the augment, although its function has undergone some changes.

In this section I want to show how the “normal” and lowered form of the Makhuwa noun are reflexes of earlier forms with, and without the augment, respectively, and how the two present-day functions of the lowered form could have evolved from the basic function of the augment and its absence.

Greenberg (1972) distinguishes three stages of the definite article (in general, not specifically for Bantu): in stage I it functions as a definite article, in stage II it is a non-generic article and in stage III it has evolved into a noun marker. The eastern Bantu languages that have an active augment are in stage II: the augment functions as a non-generic article. Or, as Greenberg later modifies his description of the stage II article, its uses include “both definite determination

and non-definite specific uses” (Greenberg 1972:62). Absence of the augment would thus render an indefinite or generic reading. This indefinite reading is appropriate and highly preferred in presentational constructions. Lambrecht (1994:178) notes that in presentational constructions “only or mainly NPs with brand-new referents may occur. In the case of English, German and French this entails that mainly indefinite NPs are tolerated in these constructions.” Constructions that assert the existence or presence of an element (inter alia predicative NPs) are thus an optimal context for the indefinite augmentless form, the reflex of which is a tonally lowered noun in Makhuwa.

Indefinite (though not generic!) forms are also used when the element has a focus relation to the proposition. The focus of a proposition is “that part which cannot be taken for granted at the time of speech. It is the *unpredictable* or pragmatically *non-recoverable* element in an utterance” (Lambrecht 1994:207). Especially discourse-new elements (which tend to be indefinite) are non-recoverable and therefore they have a close affinity with focus. Again, this indefinite form in a focus relation is coded in Luganda by omitting the augment and in Makhuwa by using PL, i.e. omitting the first H. Whether this use was initiated in Greenberg’s (1972) stage I or stage II does not matter for the argument.

So, the following scenario is proposed for Makhuwa. Formally, the segmental part of the augment in the “normal” form of the noun was lost,⁷ but the H tone remained and shifted to the stem of the noun, where it became lexicalised as a tone of the noun. It is therefore not unexpected that Makhuwa nouns in their most distinctive tonal pattern are never completely L, although this all-L pattern has been reconstructed for Proto-Bantu nouns (Greenberg 1948): Makhuwa nouns always have the H from the original augment.⁸ This scenario for the normal tonal form of the noun is schematically presented in (21a). The original H from the augment is delinked (\dagger) and merges with or replaces the possible H of the stem (which disappears: \ddagger). Some nouns have a second H, represented by the (H) in brackets. The Makhuwa form with PL reflects the augmentless form of the noun in an earlier stage, as represented in (21b).

- (21) a. H H (H) H H (H) H (H)
 | | † ‡ | |
 aug- px- stem > Ø- px- stem > px- stem
 b. H (H) H (H) (H)
 | ‡ |
 px- stem > px- stem > px- stem

Functionally, the augment/H was a definite or non-generic marker. The forms without the augment/H were indefinite and thus appropriate in the context of presentational/predicative constructions, but also for indicating focus. Both current functions of PL could have evolved from this stage and these uses.

There is an indication that PL in its second function has grammaticalised and is no longer an indication of indefiniteness, but only of focus. Greenberg (1972) mentions some prototypical uses of the “non-articulated” generic form, one of which is negation. In Luganda, Zulu and Xhosa (where the augment is still active) the object of a negative verb can appear in its augmentless form (22). If PL still had a similar function as omitting the augment has in these other Bantu languages, one would expect to find a lowered noun in Makhuwa after a negative verb form as well. Since Makhuwa uses the normal tonal form (not the lowered one) after a negative verb (23), it seems plausible that PL has grammaticalised to occur only after a CJ form or to fulfill only the function of focus marker.

Luganda (Hyman & Katamba 1993)

- (22) te-bááwa báana bitábó
 NEG-2.gave 2.children 8.books
 ‘they didn’t give the children books’
 (*a-báana e-bitábó, *a-báana bitábó, *báana e-bitábó)

Makhuwa

- (23) n-ki-m-púputtha ehópa (*ehopá)
 NEG-1SG-NEG-scale 9.fish
 ‘I am not scaling fish’

5. Conclusion

Makhuwa uses the tonal change called Predicative Lowering in (at least) two functions: 1) to form a nominal predication; 2) to focus an object after a conjoint verb form. These two uses can historically be related to each other by reference to the Proto-Bantu H tone augment and its function. Arguments for this hypothesis come from the distribution of PL, which strongly resembles the distribution of the absence of the augment in other present-day Bantu languages. The reconstruction of the Proto-Bantu augment as a definite article makes a functional historical relation between presentation/predication and focus plausible. The absence of this article renders a noun indefinite, which is the preferred form for brand-new referents in a discourse. Both predicative and focus constructions have a preference for the referent to be brand-new and hence the indefinite, augmentless/lowered form is chosen in these contexts.

- (ii) citation: mwánn' áka 'my husband'
 Hamísí mwann' aká
 Hamisi husband POSS.1SG
 'Hamisi is my husband'

4. The same probably holds for NPs in predicative use, but these data are not available yet.
5. Devos (2004) notes that the choice between a conjoint or disjoint tense is determined by pragmatics.
6. The tonal system of Luganda works differently, so the tones in the examples cannot be compared for the two languages, i.e., the absence of the H tone on the prefix in the augment-less form is probably due to something other than the absence of the augment.
7. All noun classes have lost their augment and retained the noun class prefix, except for class 9/10, which kept the vowel of the augment and lost the nasal of the noun class prefix.
8. An alternative hypothesis about the source of the H tone in Makhuwa nouns is a general accent placed on all nouns.

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