

Metatony in Basaa

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1. Introduction

Metatony, according to Nurse (2006:192), is a tonal process which concerns Bantu languages of the zones A, B, C, D10 and D20. In this process, a verb final vowel is non-H in utterance final position but it is H when followed by a complement. A larger account of this phenomenon on Bantu languages is given in Hyman & Lionnet (2011) in a paper devoted to Abo, a language closely related to Bāsàa.

This paper, devoted to the description of metatony in Bāsàa, is in line with the analysis proposed by Hyman & Lionnet (op. cit.) in the sense that the verbal tone alternation does not arise from an H augment, and it is not used to mark focus. My point here is that metatony in Bāsàa is constructed with a melodic tone whose nature depends on the conjoint/disjoint statute of the verb. Conjoint/disjoint distinction may be understood here as a contrastive relation between the verb and other constituents. According to Nurse (op. cit. 193), the conjunctive forms that he assimilates to post-verbal focus are used to emphasize the close relationship between the verb and a following constituent, such as object, adverbial, wh-word, or prepositional phrase within the same clause. On the other hand, Disjunctive forms, close to verbal focus indicate there is no special relationship between the verb and any following constituent. They often stand alone when they are sentence final. But when other sentence constituents follow them, they may not be phrased together. This dichotomy is illustrated below:

- (1) a. b̀òr b́á n̄l̄ó ŋg̀àndàk /l̄ò, ŋg̀àndàk/¹
 men Agr p1-come many
 “a lot of people came”
- b. b̀òr b́á n̄l̄ó ŋg̀àndàk
 men Agr p1-come many
 “a lot of people came”

Between the utterances above, there is a tonal difference: (1a) shows a H on the verbal stem and on the following adverb. (1b) shows a HL on the verb and a L on the following adverb. The analysis of this tonal difference shows that, in the first utterance, the H is the same tone for the verb and the post-verbal unit, thus marking the relation between them. Indeed, they are phrased together. The second utterance on the contrary shows no relation between both units, and there is a prosodic break after the verb. There exist also different interpretational effects between both utterances: While (1a) means a lot of persons came, (1b) means that not only many persons came, but there is a problem with this quantity.

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¹ The following abbreviations will be used:

- HTS: High Tone Spreading
TAM: Tense-Aspect-Modality
V1; V2: First vowel; Second vowel
TBU: Tone Bearing Unit
IAV: Immediately after verb
P1: Recent past

Bàsàa is a Narrow Bantu language spoken in Cameroon, which has been classified by Malcolm Guthrie (1948) as a A43 language. According to SIL (1982), Bàsàa is spoken by approximately 282,000 people. Bàsàa is relatively well described, in comparison with other Cameroonian languages (see Hyman 2003, Makasso 2008, and references therein). Like many other Bantu languages, Bàsàa, contrasts two lexical tones: High (H) and Low (L). Phonetically, this language shows, though, 5 tones: High (H), Low (L), Falling (HL), Rising (LH) and Downstep-High (¹H). Tone can have either lexical or grammatical function. I assume that in this language the TBU is the mora. This claim is supported by the fact that in Bàsàa there is a contrast between short, long and double vowels. Long vowels are generally the result of grammatical or contextual lengthening of lexically short vowels. This paper will focus on the realization of tones on inflected verbs. In particular, it deals with the interaction of three categories of tones (i) the lexical tone of the verbal stem; (ii) the tones from of the TAM, and (iii) the melodic tone.

The paper is structured as follows: Section 2 gives a brief overview of Bàsàa verbal morphology. Section 3 discusses the structure of metatony in Bàsàa; the position of metatony within the verb phrase construction is examined in Section 4. Section 5 summarizes the paper.

2. Bàsàa morphology

The verbal stem in Bàsàa is mono or bi-syllabic. It carries either a L or a H tone, but not both at the same time. The verbal stems can exhibit the following patterns (C = Consonant, V = Vowel): V, CV, VC, CVC, VV, VCV, CVCV, CVCVC. Some examples of verbal stems are illustrated in Table 1.

Table 1: verbal stem samples

	L		H	
v	ò	grow	é	cut (grass)
vc	àp	stretch out	áp	draw
cv	là	be able	lá	taste
cvc	kàr	chase away	kár	dry
vv	òò	hate	óó	conceive
cvv	tòò	chase away	téé	stop
vcv	òβi	rot	éβá	show
cvcv	nùndà	show	tóndá	love
cvcvc	sáyál	move	sáyál	annoy

The verb phrase structure is the following: SM – TAM – Stem – Extension(s) – NEG – IAV. The Bàsàa verbal stem can be basic or extended:

- (2) Basic stem = radical (monosyllabic) + grammatical suffix
 Extended stem = radical (monosyllabic) + extensive suffix (es).

An example of the difference between basic and extended stem is in the following example where -à is the grammatical suffix,² and -nà is the extensive suffix (reciprocal):

- (3) nùndà “to show”
 nùndnà “to show each other...”

TAM patterns are mostly expressed tonally, or with a tone accompanied by an affix. Tones in TAM can be either marked or floating and their surfacing depends on the tone on the verbal stem. The following table gives an overview of the verbal tenses in Bàsàa:

² Some authors refer to this suffix as “final vowel” (see for instance, Hyman 2010).

Table 2: Tenses in Bàsàa

Tense	Marker
Present (Pr)	N^3 (H) + <u>L</u> + Verbal stem
Recent past (P1)	N (toneless) + H + Verbal stem
Past (P2)	βi (H) + <u>L</u> + Verbal stem
Remote past (P3)	Verbal stem + <u>H</u>
Future (F1)	γa (H) + <u>L</u> + Verbal stem
Distant future (F2)	a (L) + Verbal stem

Almost all tenses in Bàsàa carry floating tones (underlined in table 2), which can trigger phonological downsteps when the stem has a lexical H, like the verb *dʒé* “to eat”:

- (4) a. mà̀ngé à βí'dʒé
 child Agr P2-eat
 “the child has eaten”
- b. mà̀ngé à n'dʒé
 child Agr Pr-eat
 “the child is eating”
- c. mà̀ngé à γá'dʒé
 child Agr F1-eat
 “the child will eat”

In addition, there is a tonal feature called the melodic tone, that accompanies certain TAM structures, and which makes the difference between the conjoint and the disjoint context of inflected verbs. The melodic tone is a recurring phenomenon in Bantu languages (Odden (2009) for Tachoni, Bickmore (2007) for Cilungu, among others). It refers to a tonal suffix that accompanies certain inflectional categories. In Bàsàa, a H or L melodic pattern is added to the tonal morphemes expressing tense, aspect or modality, depending on whether the verb is in a conjoint or a disjoint context.

3. Metatony in Bàsàa

3.1. The melodic tone

The forms in (5) below show different melodic tone patterns, with the verb *bára* “to take” in a disjoint context, where the verb is not followed by any related element.

- (5) a. P1 à m̀bára “she took”
 Present à m̀bára “she is taking”
 Indicative (li-) bára “to take”
- b. Imperative bára “take!”
 Subjunctive á bára “let her take!”
 P3 à bára “she took”

The forms in (5a) show this L melodic tone which attaches to a verb with a H stem. The HL resulting by this melodic combination from a H tone verb indicates that the verb is disjoint. The TAM in (5b) do not carry this melodic tone. This tonal change is less noticeable when the verb stem is a L, like in (6).

³ *N* here stands for the homorganic nasal.

- (6) a. P1 à ñnúndà “she showed”
 Present à ñnúndà “she is showing”
 Indicative (li-) nùndà “to show”
- b. Imperative nùndá “show!”
 Subjunctive á nú¹ndá “let her show!”
 P3 à nùndá “she showed”

When the verbal stem has a L in a disjoint context, there is no change since the floating tone always fuses with a similar lexical tone. The H melodic pattern in Bàsàa appears in conjoint contexts, and it attaches to the verb out of the radical, i.e. as from the first vowel after the radical (V2). Besides, the melodic tone spreads over the first syllable of the adjacent post-verbal element, be it a noun, a verb (infinitive), an adverb or an adjective.

- (7) a. mààṅgé à ñ-nùndà “the child has shown (P1)”
 b. mààṅgé à ñ-nú¹ndá ðíkékèlà “the child has come in the morning (P1)”

In (7a), an example disjoint context is shown. As we can notice, the L melodic suffix does not affect the verbal stem, since it has a lexical L. The tonal tense morpheme is H, which attaches to the radical. The lexical L moved rightwards and fuses with the L in V2. With (7b), we have a conjoint context. The H melodic tone attaches here, and then spreads over V2 (in the verb) and over V1 (in the IAV element), *ðíkékèlà* “morning”. Since the lexical L of the verb radical overridden by the TAM needs to attach, it creates a downstep because of the presence of H on V2. The organisation of the melodic tones can be summarized on table 3.

Table 3: Melodic tones on the surface

	Radical tone	Melodic in Disjoint	Melodic in Conjoint
Monosyllabic	L	L (HL)	L
	H	H	H
Bisyllabic	L	L(H) – L	L – H
	H	H – HL	H – H
Extensions	Toneless	/	H
IAV	L or H	/	H or ¹ H

3.2. Verbal derivatives

When the verbal radical is adjoined a suffix (either grammatical or extensive), the melodic tone attaches to this suffix. Provided that in Bàsàa all bound morphemes are toneless, the melodic L attaches in disjoint context while the melodic H attaches in conjoint context.

3.2.1. Disjoint context

- (8) L radicals
- a. mààṅgé à mbòr-òl “the child is starting”
 mààṅgé à ñnàṅ-àl “the child is going to bed”
 mààṅgé à ñjày-àl “the child is praying”
- b. mààṅgé à mbór-òl “the child has started”
 mààṅgé à ñnàṅ-àl “the child has gone to bed”
 mààṅgé à ñjày-àl “the child has prayed”

With L radicals, the melodic L attaches on suffixes. Even when the first syllable is moved to a H because of the temporal inflection (8b), the lexical L moves rightwards and fuses with the melodic L.

- (9) H radicals
- | | | | |
|----|------------------------------|----------------------------|--|
| a. | mààṅgé à ṛ ¹ kírâ | “the child is remaining” | |
| | mààṅgé à ṛ ¹ hójâ | “the child is forgetting” | |
| | mààṅgé à ṛ ¹ hójâ | “the child is remembering” | |
| b. | mààṅgé à ṛkírâ | “the child has remained” | |
| | mààṅgé à ṛhójâ | “the child has forgotten” | |
| | mààṅgé à ṛhójâ | “the child has remembered” | |

Here we have two processes: (i) the H of the radical that spreads over the grammatical suffix; (ii) the melodic L which attaches in order to signal that the context here is disjunctive. On the other hand, in the conjoint context, the H will spread over the grammatical suffix as well as over the next adjacent element.

3.2.2. Conjoint context

- (10) L radicals
- | | | | |
|--|---|----------------------------------|-----------------|
| | mààṅgé à m̀bó ¹ r-ól b́ó ¹ ló | “the child has started the work” | /b̀òrol, b̀òló/ |
| | mààṅgé à ǹnà ¹ ṛ-ál d̀zú ¹ ú | “the child has slept at night” | /ǹàṅal, d̀zúú/ |
| | mààṅgé à ǹjá ¹ ṽ-ál ḿó ¹ ní | “the child has begged for money” | /j̀àṽal, m̀òní/ |

In the above examples, there are cases of resistance of the lexical L of the stem which needs an element to attach to. Since there is an inflectional H at V1 and the melodic H at V2, the lexical L lowers the pitch on V2 by triggering the downstep.

- (11) H radicals
- | | | | |
|--|---|--|----------------|
| | mààṅgé à ṛ ¹ kír-á mááṅgé | “the child is remaining young” | /kíra, mààṅgé/ |
| | mààṅgé à ṛ ¹ hój-á ḿó ¹ ní | “the child is forgetting the money” | /hójá, m̀òní/ |
| | mààṅgé à ṛ ¹ hój-ól ǹṅṅ | “the child is thinking about his mother” | /hójol, ǹṅṅ/ |

Extensive suffixes behave just like grammatical suffixes. They bear a L tone in disjoint contexts and a H tone in conjoint contexts.

- (12) Disjoint context
- | | | | |
|--|---------------------|--------------------------------------|-------------|
| | mààṅgé à ñtíṅ-il | “the child untied” | /tíṅ-il/ |
| | b́á b́isèβl-à-nà | “they called each other” | /sèβl-a-na/ |
| | m̀alêr à m̀b̀òṅ-ól | “the teacher uses” | /b̀òṅ-ol/ |
| | mààṅgé à ṛhój-là-hà | “the child has reminded s.o. of sth” | /hój-la-ha/ |
- (13) Conjoint context
- | | | | |
|--|---|---|-------------------------|
| | mààṅgé à ñtí-ṛíṅ ṛkòò | “the child untied the rope” | /tíṅ-il, ṛ-kòò/ |
| | b́á b́isèβl-á-ná b́íkékèlà | “they called each other in the morning” | /sèβl-a-na, b́i-kékèlà/ |
| | m̀alêr à m̀b̀òṅ-ól líbám | “the teacher uses the blackboard” | /b̀òṅ-ol, lí-bám/ |
| | mààṅgé à ṛhój-lá-há ḿó ¹ ní | “the child has reminded s.o. of money” | /hój-la-ha, m̀òní/ |

The melodic tone pattern attaches to free or empty TBUs. For that reason, the melodic H attaches without any resistance. But when the noun in IAV position is prefixless with a L tone at the first syllable, this lexical tone has to move rightwards to find a place where to attach. If a H tone is on V2, such a lexical H tone undergoes a downstep, like with *b̀òló* “work” in the following example.

- | | | | |
|------|--|------------------------|-----------|
| (14) | à m̀bó ¹ ról b́ó ¹ ĺó | “she started working” | /b̀òĺó/ |
| | à m̀bó ¹ ról m̀ákéǵí | “she started strongly” | /ma-kéǵí/ |

3.3. Complex alternations

Like in Abo (Hyman and Lionnet, op. cit), not all TAM are accompanied with a H or L suffix. Some rather have a HL melodic tone. In Bàsàa, the TAM which are not accompanied by a H or L suffix are: the P3 (future in Abo), the imperative, the subjunctive, and the stative.

- | | | | |
|------|----------------------------|-----------------------------------|-------------|
| (15) | P3 | | |
| | nàǵál βikékèlà | “she slept in the morning” | /βi-kékèlà/ |
| | nàǵál ¹ lóngê | “she slept well” | /lóngê/ |
| (16) | Imperative | | |
| | nàǵál βikékèlà | “sleep in the morning!” | |
| | nàǵál ¹ lóngê | “sleep well!” | |
| (17) | Subjunctive | | |
| | á náǵál βikékèlà | “may her sleep in the morning!” | |
| | á náǵál ¹ lóngê | “may her sleep well” | |
| (18) | Stative | | |
| | à nìǵí βikékèlà | “she is sleeping in the morning!” | |
| | à nìǵí ¹ lóngê | “she is sleeping well” | |

Not all the elements in IAV undergo metatony. The demonstrative and the connective of Noun class 9 do not change.

- | | | |
|------|----------------------------------|---------------------------------|
| (19) | à ns̀omból iní ¹ ndáp | “she wants this house” |
| | à ns̀omból ì m̀alêr | “she wants that of the teacher” |

Also, the surfacing and the connection of the H melodic tone is some kind of evidence that the verb and what follows are phrased together. When there is a pause or a prosodic break after the verb, the verb behaves like in a disjoint context.

- | | | | | | |
|------|----|-----|-----------------------|------|----------|
| (20) | a. | à | ǵ ¹ gwés | ní | ǵǵùj |
| | | she | pr-like | with | strength |
| | | | “she likes seriously” | | |
| | b. | à | ǵ ¹ gwês | nì | ǵèn |
| | | she | pr-like | with | hate |
| | | | “she likes and hates” | | |

4. Metatony and verbal construction

This section deals with the position of metatony within Bàsàa verbal morphology. In one of his analyses of the Bàsàa verbal stem, Hyman (2000) showed that on the one hand, the morphology is concatenative, and on the other hand, the phonological spell-out of morphology requires cyclicality. Following this argumentation, I come to the point that the verb phrase construction is concatenative and cyclic. This could be illustrated as follows:

(21)	à βíβòró1 βó ¹ ló		
	Stem:	βor-ol	/L-ø/
		↓	
	+ TAM:	βi - βor-ol	/H-L-ø/
		↓	
	+ Post-verb:	βi - βor-ol βolo	/H-L-ø-L-H/
		↓	
	+ Melodic tone:	βi - βor-ol βolo	/H-L-H-H- ¹ H/

The order of elements should then be the following:

- (22) a. When disjoint verb: stem>TAM> melodic tone
 b. When conjoint verb: stem >TAM > post-verb > melodic tone

The main interest of this derivation is to show that if the melodic tone comes at that position, but not at the same time with the TAM marker, then it is not part of the conjugation. Metatony is by the way NOT an inflectional category.

5. Summary

To sum up, it seems uncontroversial that Bàsàa, like other Bantu languages, has melodic tones which accompany inflectional tenses and which signal the presence of a conjoint vs. a disjoint context. In disjoint contexts, i.e., when the verb is either in utterance final position or followed by unrelated items, the verb will bear a melodic L tone suffix. Moreover, this suffix attaches to a H disyllabic stem, it creates a falling tone because there is HTS from the radical to V2 as well. Verbal extensions, when present, will be attached to this L melodic tone since they have free TBUs.

In conjoint contexts, i.e., when the verb is not in utterance final position or it is phrased with the post-verbal items, there is rather a H tone suffix that attaches on the free TBUs. The H attaches from V2 of the verbal stem and to the verbal extensions as well. Likewise, the H attaches on the first syllable of the IAV element. We attempt to summarize this as follows:

- (23) a. In disjoint context
 L bisyllabic stem: no change
 H bisyllabic stem: H-HL
- b. In conjoint context
 L bisyllabic stem: H on V2 + H on V1 (IAV)
 H bisyllabic stem: no change + H on V1 (IAV)

To conclude, this paper has shown that Bàsàa, like other Bantu languages, has melodic tone patterns which create alternation in verbal stems tones, when they are or not followed by an item with which they are related or not. Also, as for the question of the morphological construction of the Bàsàa verb phrase, this study has shown that the morphology is constructed step-by-step and that it is cyclic.

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