

# Tone at the syntactic interface in Gyeli

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## 1 Introduction

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## 1.2 The Gyeli language

- ISO 639-3: gyi
- 'Pygmy' hunter-gatherers in southern Cameroon and Equatorial Guinea (4000-5000 speakers scattered in a vast area)
- Bantu A80 (Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Narrow Bantu, Northwest, A, Makaa-Njem (A.80))
- Gyeli also known under the names Bagyeli, Bakola, Bajelli, Bako, Bogyel, Likoya, Babinga...
- Contact with farming communities of other Bantu languages (Basaa, Kwasio, Bulu, Fang, Ewondo, Bakoko, Yasa)
- Endangered language because of change of subsistence
- Different varieties of Gyeli depending on contact language
- *Ngòló* variety of my dissertation spoken in the Bulu region
- Data: mostly own fieldwork within framework of a DoBeS (Documentation of Endangered Languages) project, previous work by Renaud (1976) concentrates on variety in contact with Mvoumbo speakers and on phonology + nominal morphology; there are significant differences between the two varieties/descriptions in terms of lexicon, phonology and morphology

## 1.3 Tone and tone languages

- 'Tone' is related to variation in pitch
- Tonal language: variation in pitch leads to meaning difference; 60-70 % of the world's languages are tonal (Yip 2002)
- Typical distinction: lexical vs. grammatical tone

Outline of this talk:

1. Introduction
2. Lexical tone
3. Grammatical tone
4. Phonologically conditioned tonal processes
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## 2 Lexical tone

Gyeli has two level tones: H and L as contrasted in (1).

- (1) a. síŋgí 'squirrel'  
 b. sìŋgì 'spirit'  
 c. síŋgì 'cat'

Also, Gyeli has two contour tones: falling HL and rising LH as in (2).

- (2) a. sâ 'thing' ⇔ sá 'hut'  
 b. bwă 'swell' ⇔ bwà 'give birth'

Contour tones are less frequent than level tones and more restricted in their environment of occurrence. They usually show up in monosyllabic words.

## 3 Grammatical tone

Grammatical tone in Gyeli is most salient in tense marking.

### 3.1 Default tense marking

Table 1 shows the different patterns of Gyeli's tenses as they occur without aspect markers, without negation and the verb being phrase final.

Tense	SM	Verb stem	Gloss
FUT	àà	dè	's/he will eat'
PRES	á	dè	's/he eats'
INCH	àá	dè	's/he is at the beginning of eating'
PST1 (recent)	à	dé	's/he ate (recently)'
PST2 (remote)	áà	dé	's/he ate (a long time ago)'

Table 1: Tonal patterns in different tenses

Verb stems have two patterns: a past and a non-past.

The subject marker (SM) has five different patterns involving tonal change and vowel lengthening.

SMS of different PNGs have the same tonal and vowel length pattern in a given category except for the future. 1S, 2S and 3S have a lengthened LL vowel while all others have a lengthened HL vowel as shown in Table 2.

First person	1S m <sup>è</sup> è dè	1P y <sup>à</sup> à dè
Second person	2S w <sup>è</sup> è dè	2P bw <sup>á</sup> à dè
Third person	cl. 1 à <sup>à</sup> dè cl. 3 w <sup>ú</sup> ù dè cl. 5 l <sup>é</sup> è dè cl. 7 y <sup>î</sup> dè cl. 9 ny <sup>î</sup> dè	cl. 2 b <sup>á</sup> à dè cl. 4 m <sup>î</sup> dè cl. 6 m <sup>á</sup> à dè cl. 8 b <sup>é</sup> è dè

Table 2: Tonal pattern of 'x will eat'

## 3.2 Tense marking and aspect

Gyeli is a tense language since

- tense is more prevalent than aspect marking; tense marking is obligatory, aspect marking is not

- each aspect marker is restricted to certain tenses, but no aspect marker is used in all tenses

- an aspect marker belongs either to the past or the non-past

Table 3 lists the aspect markers used in Gyeli

Status	Aspect marker	Tense restriction	Function
Grammaticalized markers preceding the verb	<b>nzíí</b>	PRES	progressive
	<b>nzí</b>	PST1, PST2	progressive
	<b>nzéé</b>	subordinated	progressive
	<b>múà</b>	PRES	'be about to'
	<b>ĺ</b>	PRES	inceptive
	<b>bwàá</b>	PST1, PST2	perfect
Postverbal	<b>m̀/ -Ṽ</b>	PST1	completive
Periphrastic verbs	<b>kè</b> 'go'	none	allocative
	<b>sílè</b> 'finish'	none	completive

Table 3: Gyeli aspect marking

Note: Perfect is seen here as a past action with present relevance while completive talks about completing an action.

### What happens tonally when aspect is marked?

→ **Tones change!**

- in PRES on some SMs

- in PST on verb

**PRES aspect marking** With PRES aspect marking, some SMs come with different tonal patterns, depending on the person. 1S, 2S and 3S (cl. 1) have a L tone as in (3b), all the others have a H tone as in (3c).

- (3) a. **mé**      **dè**  
 1S.PRES eat  
 'I eat.'
- b. **mè** **nzíí**      **dè**  
 1S PROG.PRES eat  
 'I'm eating.'
- c. **bá** **nzíí**      **dè**  
 3P PROG.PRES eat  
 'They are eating.'

The same is true for other PRES tense aspect markers *múà* (4) and *ĺ* (5).

- (4) múà
- a. à múà dè  
3S ? eat  
'S/he is about to eat.'
  - b. bá múà dè  
3P ? eat  
'They are about to eat.'

*ló* is a loan word from the Basaa verb 'come' which speakers recognize. It's, however, never used as the verb 'come' in Gyeli, only in contexts as in (5).

- (5) *ló*
- a. à *ló* dè  
3S INCEP eat  
'He just ate (Il vient de manger)'
  - b. bá *ló* dè  
3P INCEP eat  
'They just ate.'

**PST aspect markers** For aspect markers of the PST, the following verb does not take its PST tonal pattern with a H, but surfaces with the default tonal pattern of the PRES which is either L (as with *dè* 'eat') or HL (as with *nyê* 'see').

- (6)
- a. mé nyê  
1S.PRES see  
'I see.'
  - b. mèn nyé  
1S see  
'I saw.'
  - c. mèn nzí nyê  
1S PROG.PST see  
'I was seeing (recently).'
  - d. méèn nzí nyê  
1S.PST2 PROG.PST see  
'I was seeing (a long time ago).'

The same is true for other PST aspect markers that precede the verb (7).

- (7) bwàá
- a. mèn bwàá dè  
1S PRF eat  
'I have eaten (recently). (J'avais mangé depuis.)'
  - b. méèn bwàá dè  
1S.PST2 PRF eat  
'I have eaten (long ago).'

The only aspect marking devise that follows the verb is the completive. It comes in two forms: a postverbal morpheme *m̀* (8a) or a nasalized vowel with a falling HL tone (8b). The latter is said to be more typical Gyeli, but *-m̀* is also productively used, due to contact with Mabi that expresses perfective with the suffix *-ma* or *-me*.

- (8) *m̀*/*-Ṽ*
- a. *m̀* *l̀̀ngá m̀*  
1S grow COMPL  
'I have (already) grown.'
  - b. *m̀* *l̀̀ngá̃̃*  
1S grow:COMPL  
'I have (already) grown.'

- What about FUT and INCH?

They seem to be subcategories of the PRES and need a special framing construction with *bɛ* 'be' to be marked for aspect such as PROG as shown in (9).

- (9) a. *m̀̀̀* *b̀* [*m̀* *nzéé* *d̀̀*]  
1S.FUT be 1S PROG eat  
'I will be eating.'
- b. *m̀́́* *b̀* [*m̀* *nzéé* *d̀̀*]  
1S.INCH be 1S PROG eat  
'I'm at the beginning of being eating.'

The progressive aspect is the only aspect marker that has a suppletive form for such framing constructions. All the other aspect markers can also occur in such a construction, but with the same form.

### 3.3 Tense marking and negation

Negation is marked differently in PST, PRES and FUT tense. Only in the PRES does negation marking follow the verb it negates, in the other tenses, negation marking precedes the verb.

**PRES negation** The SM in PRES tense negation is usually as the one in affirmative PRES phrases H as in (10a). Exceptions are 1S, 2S, 3S, and 2P which have a long rising LH vowel as in (10b).

- (10) a. *bá* *ké-lé*  
3P go-NEG  
'They don't go.'
- b. *àá* *ké-lé*  
3S go-NEG  
'He does not go.'

The tonal pattern on the verb and the negation *-lɛ* depends on the tonal pattern of the verb root. Any monosyllabic verb is either L or HL in its default form. In PRES negation, both the verb and the negation suffix surface with H tones as shown in (11).

- (11) a. dé-lé > dè 'eat'  
 b. ké-lé > kè 'go'  
 c. nyé-lé > nyê 'see'  
 d. pé-lé > pê 'choose'

If a verb root starts with a H tone, no matter if bisyllabic (12) or trisyllabic (13), the H tone will spread onto the moras to the right, including the negation suffix *-lɛ*.

- (12) H L  
 a. síndyá-lé > síndyà 'change'  
 b. símé-lé > símè 'respect'  
 c. dzímbé-lé > dzímbè 'get lost'  
 d. ηgwáwó-lé > ηgwáwò 'bend'

- (13) H L L  
 a. gyíkésé-lé > gyíkèsè 'teach'  
 b. líyé-lé > líyèlè 'show'  
 c. lúmélé-lé > lúmèlè 'send'  
 d. súmélé-lé > súmèlè 'greet'

If the first TBU of a verb root is L, it will be replaced by a H tone while the following moras stay L, including the negation suffix. This is true for both bisyllabic (14) and trisyllabic (15) verbs.

- (14) L L  
 a. gyàgà-lè > gyàgà 'buy'  
 b. vówà-lè > vòwà 'wake up'  
 c. lùṅgà-lè > lùṅgà 'grow'  
 d. tsílò-lè > tsilò 'write'
- (15) L L L  
 a. kfùβàlà-lè > kfùβàlà 'move'  
 b. vídègà-lè > vídègà 'turn'  
 c. kàmbàlà-lè > kàmbàlà 'defend'  
 d. djínèsè-lè > djìnèsè 'make sth. sink'

**PST negation** The same negation forms are used for both PST1 and PST2, but for both there are two forms that seem to be freely interchangeable: *sàlé* (16a) and *pàlé* (16b). The SM in PST negation always takes a H tone.

- (16) a. mé sàlé dè  
 1S NEG.PST eat  
 'I didn't eat.'  
 b. mé pàlé dè  
 1S NEG.PST eat  
 'I didn't eat.'

**FUT negation** FUT negation is marked preverbally with the negation word *kálè* as shown in (17). The SM in FUT negation remains the same as in affirmative sentences.

- (17) àà kálè kè  
 3S NEG.FUT go  
 'S/he will not go.'

## 4 Phonologically conditioned tonal processes

There are tonal changes that are neither lexical nor grammatical, but that are conditioned phonologically.

### 4.1 Tone spreading

Gyeli has morphemes that are unspecified for tone, i.e. they are toneless. As a default, they surface with a L. The non-default is when a H tone spreads onto toneless moras so that those underlyingly toneless units surface as H. H tones in Gyeli can spread both to the right and the left.

#### 4.1.1 Tone spread to the right

H tone spreading to the right typically occurs in N + N connective constructions. In (18a), the CON marker has a L tone. Thus, the following underlyingly toneless nc prefix of the second nominal constituent surfaces L. In (18b), the CON marker is H and this H tone spreads onto the following nc prefix.

- (18) a. só wà bà-tí  
 1nc.friend 1:CON 2nc-in.law  
 'the friend of the in-laws'  
 b. bà-só bá bá-tí  
 2nc-friend 2:CON 2nc-in.law  
 'the friends of the in-laws'

#### 4.1.2 Tone spread to the left

Tone spread to the left typically occurs in trisyllabic verbs. As of the second syllable of a verb root, syllables are underlyingly unspecified for tone. When a H tone attaches to the right of a verb, it spreads left onto all toneless moras as shown in (19).

- (19) á viðègà 's/he turns' > viðègà-H > à viðégá 's/he turned'

## 5 Syntactic tone

Issue: a H tone attaches to a non phrase final verb and/or to following toneless morphemes in certain contexts as in (20).

Note that all CV- shaped noun class prefixes in Gyeli are underlyingly toneless and surface with a L tone in isolation or phrase initially (**bè-déwò** 'food').



- (20) a. gyámbò 'to cook'  
 b. gyámbó bé-déwò 'to cook food'

Where and how does it show up in Gyeli?

→ Possible surface patterns:

- H tone(s) attach to the verb and a following toneless unit (21a)
- H tone attaches only to a following toneless unit, but not to the verb (21b)

- (21) a. mé gyámbó bé-déwò  
 1S.PRES cook 8nc-food  
 'I cook food.'
- b. mèè gyámbò bé-déwò  
 1S.FUT cook 8nc-food  
 'I will cook.'

Determining factors:

- tense
- aspect marking
- negation

## 5.1 Syntactic H tones in Gyeli

### 5.1.1 Which elements following the verb trigger H tone variation?

In contexts where the final -L on the verb becomes -H, it does so before all parts of speech and all constituents within the clause as shown in (22).

- (22) a. á gyámbò 's/he cooks'  
 b. á gyámbó bé-déwò 's/he cooks food' \_\_noun  
 c. á gyámbó byô 's/he cooks it' \_\_pronoun  
 d. á gyámbó ndàà 's/he cooks today' \_\_adverb  
 e. á gyámbó é kisiní dé tù 's/he cooks in the kitchen' \_\_preposition  
 f. á gyámbó nà wómbèlè 's/he cooks and sweeps' \_\_conjunction

This is also true for verb chains (23).

- (23) a. á kè 's/he goes'  
 b. á ké gyámbò 's/he goes cooking' \_\_verb

### 5.1.2 H tone attaches to verb

The H tone in Gyeli only really attaches to the verb in the PRES tense (and the INCH as a subcategory of the PRES) when no aspect or negation marker is present as shown in the examples in (22) and (23).

The H tone that attaches to a verb spreads further to the left if there are more underlyingly toneless morphemes as in trisyllabic verbs such as *gyíkèsè* 'teach', (24a) for the PRES, (24b) for the INCH.

- (24) a. bá gyikésé **bá**-bwálè b-áà fàlà  
 3P.PRES teach 2nc-parent 2-1S.POSS 7nc.French  
 `They teach my parents French.'  
 b. àá gyikésé **bá**-bwálè b-áà fàlà  
 1S.INCH teach 2nc-parent 2-1S.POSS 7nc.French  
 `S/he is at the beginning of teaching my parents French.'

(25) shows that the H tone on the CV- noun class prefix depends on its position in the phrase and not on its status as direct or indirect object. In both phrases, the H tone is only on the prefix that follows the verb.

- (25) a. mé vé **bé**-fùmbí bà-bwálè SV DO<sub>NOM</sub> IO<sub>NOM</sub>  
 1S.PRES give 2nc-orange 2nc-parent  
 `I give oranges to the parents.'  
 b. mé vé **bá**-bwálè bè-fùmbí SV IO<sub>NOM</sub> DO<sub>NOM</sub>  
 1S.PRES give 2nc-parent 2nc-orange  
 `I give the parents oranges.'

It is difficult to distinguish whether PST tense verbs belong to the pattern with or without a H tone attached to the verb because their final vowel(s) is/are H anyway as part of their tense marking.

- (26) a. mè vé **bé**-fùmbí bà-bwálè  
 1S.PST1 give 2nc-orange 2nc-parent  
 `I gave oranges to the parents (recently).'  
 b. mèè vé **bá**-bwálè bè-fùmbí  
 1S.PST2 give 2nc-parent 2nc-orange  
 `I gave the parents oranges (a long time ago).'

### 5.1.3 H tone does not attach to verb

In the majority of cases, a H tone only attaches to a underlyingly toneless morpheme (CV- shaped noun class prefix), but not to its preceding verb.

In the **FUT** tense, the H tone does not attach to the verb (27).

- (27) mèè vè **bé**-fùmbí bà-bwálè  
 1S.FUT give 2nc-orange 2nc-parent  
 `I will give oranges to the parents.'

Whenever any **aspect** marker is involved, no H tone attaches to the verb, but only to a following toneless morpheme. This is also true for aspect markers of the **PRES** as shown in (28).

- (28) a. mè nzí vè **bé**-fùmbí bà-bwálè  
 1S PROG.PRES give 2nc-orange 2nc-parent  
 `I am giving the oranges to the parents.'

b. m̀è múà **v̀è** **bé-fùmbí** bà-bwálè  
 1S ? give 2nc-parent 2nc-orange  
 'I'm about to give the oranges to the parents.'

c. m̀è ló **v̀è** **bé-fùmbí** bà-bwálè  
 1S INCEP give 2nc-parent 2nc-orange  
 'I just gave the oranges to the parents.'

The same pattern occurs in the PST aspect markers with *nzí* (29), *bwàá* (30), and *m̀/ -Ṽ* (31).

(29) *nzí*

a. m̀è *nzí* **v̀è** **bé-fùmbí** bà-bwálè  
 1S PROG.PST1 give 2nc-orange 2nc-parent  
 'I was giving the oranges to the parents (recently).'

b. m̀èè *nzí* **v̀è** **bé-fùmbí** bà-bwálè  
 1S PROG.PST2 give 2nc-parent 2nc-orange  
 'I was giving the oranges to the parents (a long time ago).'

(30) *bwàá*

a. m̀è *bwàá* **v̀è** **bé-fùmbí** bà-bwálè  
 1S PRF give 2nc-orange 2nc-parent  
 'I have given the oranges to the parents (recently).'

b. m̀èè *bwàá* **v̀è** **bé-fùmbí** bà-bwálè  
 1S.PST2 PRF give 2nc-parent 2nc-orange  
 'I have given the oranges to the parents (a long time ago).'

(31) *m̀/ -Ṽ*

a. m̀è tsìlòò **bé-kálàdè**  
 1S write:COMPL 8nc-letter  
 'I have written the letters.'

b. m̀è tsìlò m̀ **bé-kálàdè**  
 1S write COMPL 8nc-letter  
 'I have written the letters.'

Finally, also the PROG form for framing constructions *nzéé* behaves like the other PROG markers as shown in (32). No H tone attaches to the verb, only to a following CV- shape nc prefix.

(32) m̀èè *bè* m̀è *nzéé* **dè má-ntúà**  
 1S.FUT be 1S PROG eat 6nc-mango  
 'I will be eating mangoes.'

**Negation** With negation, the H tone does not attach to the verb. In PRES negation, the negation marker and underlyingly toneless verb moras are H anyway if the verb root starts with a H as in (33a). In cases where the first mora is L, it becomes H under negation while the following TBUs including the negation marker are L. They remain L even when they are not phrase final as in (33b).

- (33) a. yá gyám**ó-lé** bé-déwò  
 1P cook-NEG 8nc-food  
 'We don't cook food.'
- b. yá tsí**lè-lè** bé-kálàdè  
 1P write-NEG 8nc-letter  
 'We don't write letters.'

PST negation words have a final H tone while following verbs come with default (non H) tones as shown in (34).

- (34) a. á sà**lé** kòlè wómbèlè  
 3S NEG.PST help sweep  
 'S/he didn't help to sweep.'
- b. á pà**lé** kòlè wómbèlè  
 3S NEG.PST help sweep  
 'S/he didn't help to sweep.'

The negation word in the FUT does not take a H which is parallel to FUT forms in affirmative sentences.

- (35) àà ká**lè** kòlè wómbèlè  
 3S NEG.FUT help sweep  
 'S/he won't help to sweep.'

Aspect markers and preverbal negation words of the PST and FUT may have verby properties in that most of them already carry that H tone so that the following verb does not carry tense information or a H tone anymore, but rather act like non-finite verb forms with a default tonal pattern. This is of course hard to test for since neither negation words of the PST and FUT nor preverbal aspect markers ever occur phrase finally.

## 5.2 Controlling for sentence types

The tonal behavior just shown does not depend on sentence types, but remains the same no matter whether it's questions, relative or subordinated clauses.

- (36) Questions
- a. nzá á vé **bé-fùmbí**?  
 who 3S.PRES give 8nc-orange  
 'To whom does s/he give the oranges?'
- b. á vé nzá **bè-fùmbí**?  
 3S.PRES give who 8nc-orange  
 'To whom does s/he give the oranges?'
- c. á vé **bé-fùmbí** nzá?  
 3S.PRES give 8nc-orange who  
 'To whom does s/he give the oranges?'

- (37) Relative clauses

- a. b-wánò b-ùdâ [bá òmbó dyúà] bá sá má-sâ é  
 2nc-child 2nc-woman 2:REL know swim 3S.PRES do 6nc-game LOC  
 nsá'à wá jíwó  
 3nc.shore 3:CON 7nc.river  
 'The girls who know how to swim are playing at the riverbanks.'
- b. b-wánò b-ùdâ [wè nzí nyê kóò] bá ké máà  
 2nc-child 2nc-woman 2S PROG.PRES see always 2.PRES go 6nc:sea  
 'The girls who you are always seeing go to the sea.'
- c. m-ùdì [m-wánò w-èè dúwó ndàà] á ké nà nyê  
 1nc-person 1nc-child 1-3S.POSS be.sick today 3S.PRES go COM 3S  
 dóktà  
 1nc.doctor  
 'The person whose child is sick today goes with it to the doctor.'

(38) Temporal clause

mè nzí nò fótò líndè Àdà à nzí bè à nzéé dè  
 1S PROG.PST take 1nc.photo when PN 3S PROG.PST be 3S PROG eat  
 má-ntúà  
 6nc-mango

'I was taking photos while Ada was eating mangoes.'

(39) Subordinated clause

mé sisó nâ mé nyé má-ndáwò  
 1S.PRES be.happy COMP 1S.PRES see 6nc-houses

'I'm happy to see the houses.'

The only exceptional behavior is found in subordinated clauses which contain an optative form. The optative is marked on the verb by a lengthened final vowel with a HL pattern. SMs are the same as in the affirmative PRES tense. In terms of tonal pattern, neither the verb nor a following CV- shape nc prefix receive a H tone as shown in (40).

(40) Subordinated clause with optative

a. mé wúmbé nâ á gyaámboò bè-déwò  
 1S.PRES want COMP 3S.PRES cook.OPT 8nc-food

'I want her/him to cook food.'

b. bá kwàlé nâ mé gyíkéséè bà-bwálè fàlà  
 3P.PRES like COMP 1S.PRES teach 2nc-parent 7nc.French

'They like me to teach the parents French.'

### 5.3 Phonological analysis of the H tone

How many H tones are there?

Where are they?

Hypothesis 1: There is one linking H tone following the finite verb (41a). It spreads to the left onto all underlyingly toneless moras of the verb unless blocked by factors such as (FUT) tense, aspect and negation. At the same time, it spreads to the right onto following toneless moras of a noun class prefix.

Hypothesis 2: There are two H tones (41b). One attaches to the verb in PRES and INCH tense. The other attaches right to CV- shape noun class prefixes.

- (41) a. ?á lúmélé - $\textcircled{\text{H}}$ - má-ntúà bà-bwálè  
 3S.PRES send -H- 6nc-mango 2nc-parent  
 's/he sends mangoes to the parents.'
- b. á lúmélé - $\textcircled{\text{H}}$   $\textcircled{\text{H}}$ - má-ntúà bà-bwálè  
 3S.PRES send -H H- 6nc-mango 2nc-parent  
 's/he sends mangoes to the parents.'

In favor of Hypothesis 2: In more complex constructions with multiple verbs (42), the last (non-finite) verb in the chain does not have a H tone attached that could spread onto the nominal, but a nominal with CV- shape noun class prefix does still take a H tone. That can thus not be the same H tone since spreading across other elements is prohibited.

- (42) a. á ké dè má-ntúà  
 3S.PRES go- $\textcircled{\text{H}}$  eat  $\textcircled{\text{H}}$ -6nc-mango  
 'He goes to eat mangoes.'
- b. mé wúmbé dè má-ntúà  
 1S.PRES want- $\textcircled{\text{H}}$  eat  $\textcircled{\text{H}}$ -6nc-mango  
 'I want to eat mangoes'
- c. mé tálé wúmbè dè má-ntúà  
 1S.PRES begin- $\textcircled{\text{H}}$  want eat  $\textcircled{\text{H}}$ -6nc-mango  
 'I begin to want to eat mangoes'

Even though the first H tone does not attach to the verb which is the case with aspect marking, for instance, the H tone on the nominal complement nevertheless surfaces (43).

- (43) à nzíí tálé sélò bé-ntùgú  
 3S PROG.PRES begin peel  $\textcircled{\text{H}}$ -8nc-potato  
 'S/he is starting to peel potatoes.'

There are other elements such as adverbs that can occur between a finite verb and its following (nominal) object. Again, the CV- shape noun class prefix has a H tone which can definitely not spread from the finite verb (44).

- (44) a. mé kwàlé kóò bá-bwálè b-áà  
 1S.PRES love- $\textcircled{\text{H}}$  always  $\textcircled{\text{H}}$ -2nc-parent 2-1S.POSS  
 'I always love my parents.'

- b. mɛ̀ɛ̀ vɛ̀ nâ **bé**-fùm**bí** bà-bwá**lè**  
 1S.FUT give still (H)-2nc-orange 2nc-parent  
 'I still give oranges to the parents.'

There seems to be a syntactic rule that the nominal complement that is closest to the verb receives a linking H tone as shown in (45), a repetition of (25).

- (45) a. mé vɛ̀ **bé**-fùm**bí** bà-bwá**lè** SV DO<sub>NOM</sub> IO<sub>NOM</sub>  
 1S.PRES give (H)-2nc-orange 2nc-parent  
 'I give oranges to the parents.'
- b. mé vɛ̀ **bá**-bwá**lè** bè-fùm**bí** SV IO<sub>NOM</sub> DO<sub>NOM</sub>  
 1S.PRES give (H)-2nc-parent 2nc-orange  
 'I give the parents oranges.'

This rule is supported by the fact that nominal adjuncts don't have any linking H tone (46).

- (46) mé pà**lè** kè dyô **mà**-fú má-lá**lè**  
 1S NEG.PST go sleep 6nc-day 6-three  
 'I haven't slept in three days.'

## 5.4 What are these tones?

What do you call these tones?

What do they do?

What does the literature say about them?

There are many notions in the Bantu literature on tonal phenomena on the syntactic level:

- Metatony
- Conjoint-Disjoint (CJ/DJ) distinction
- Focus

### 5.4.1 Metatony

**Traditional connotation** Hyman & Lionnet (2011: 168) explain 'metatony' as a term introduced by Meeussen (1967) to characterize tonal alternations on the final vowel of the class 15 *ku*- infinitive (see (47a) vs. (47b)).

“The final element has to be set up as -a (low) or -á... (with metatony: high if an object follows, low otherwise).” Meeussen (1967:111)

Dimmendaal (1995) and Schadeberg (1995) point out that the “metatonic” final H is lacking when the infinitive is followed by a connective (genitive) NP as in (47c).

- (47) Songye (L23), Stappers (1964)
- a. ku-sep-a 'to laugh (at)' (without metatony)
- b. ku-sep-á mfumu 'to laugh at the chief' (with metatony)
- c. ku-sep-a kwǎ-mbwá 'the laughing of the dog' (without metatony)

So, metatony originally referred to constructions which involve both the *ku*-...-a infinitive and a following object NP.

**Extension of the term** Since then, the term has been

"extended to describe tonal alternations in certain conjugated verb forms which clearly do not involve the infinitive ku- prefix, as well as cases where the following constituent need not be an object" (Hyman & Lionnet 2011: 169)

"...metatony, whereby in certain T[ense]A[spect] forms a high tone replaces a low or falling tone on post-radical syllables... if and only if the verb is not phrase-final, that is, followed by other material such as an object or adverbial." (Nurse 2008: 48)

**Origin of metatony** Hyman & Lionnet (2011: 169-170) cite three different possibilities proposed by the literature to explain the origin of metatony:

1. from the connective (genitive) \*-á morpheme (Angenot 1971)
2. from the initial \*H "augment" morpheme on the following noun phrase (Dimmendaal 1995, Schadeberg 1995)
3. related to focus and the "conjoint-disjoint" distinction attested in a number of Bantu languages (Costa & Kula 2008: 313, Nurse 2008: 204, Makasso 2012)
4. marking a special relation between the verb and what follows (Schadeberg 1995, Hadermann 2005)

### 1. Connective origin

Hyman & Lionnet (2011: 169) explain that "when the segments of the class 15 connective marker /ku-á/ drop out, its H tone is reassociated to the final vowel of the preceding infinitive verb" as shown in Figure 1.

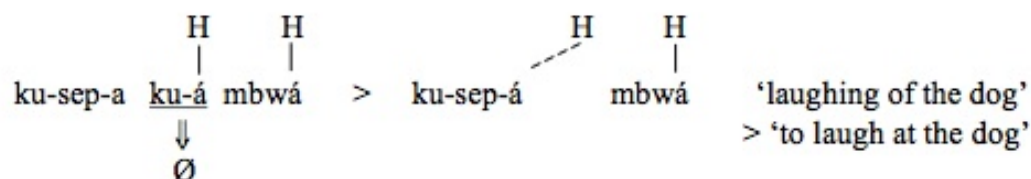


Figure 1: Metatony as derived from a \*-á connective (Hyman & Lionnet 2011: 169)

The connective origin is ruled out:

"Hadermann (2005: 408-9) rightly points out the absence of evidence that a connective morpheme was ever present in the forms that become metatonic. In Bantu, when the ku- infinitive is used verbally, e.g. to mean 'to laugh at the dog', the NP object normally follows without any marking" (Hyman & Lionnet 2011: 169)



## 2. Augment origin

"[W]hen the vowel of the hypothetical class 1 “article-like” augment \*ú- drops out, its H reassociates to the final vowel of the infinitive" (Hyman & Lionnet 2011: 170) as shown in Figure 2.

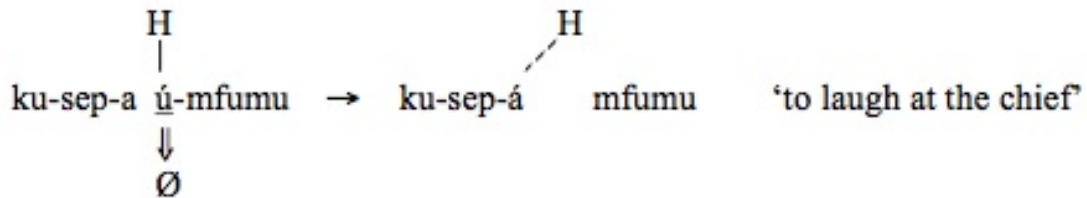


Figure 2: Metatony as derived from \*ú- augment (Hyman & Lionnet 2011: 170)

The augment origin is ruled out:

A finite verb form in Gyeli takes a H tone (at least in PRES and INCH) even though the following element is not a nominal object (22). However, pronouns, adverbs, prepositions, and conjunctions are not marked by an augment in Bantu.

## 3. Focus and "conjoint/disjoint" distinction

**Arguing against focus:** Intuitively, the H tone on PRES and INCH finite verbs always occurs, no matter which element in the sentence is focussed. Focus marking in Gyeli is done by means of position in the phrase; the final position is the FOC position as exemplified in (48). Further, Gyeli uses prosodic means as well as cleft sentences to express FOC.

- (48) a. á            kí nâ        á            bíyɔ̃ wê  
           3S.PRES say COMP 3S.PRES beat 2S  
           'He says that he beats YOU.'
- b. á            kí nâ        á            wê bíyɔ̃  
           3S.PRES say COMP 3S.PRES 2S beat  
           'He says that he BEATS you.'

Further evidence against the FOC hypothesis comes from subordinated and relative clauses as seen above, which usually have a backgrounding function and are thus limited in terms of FOC.

### Arguing against CJ/DJ distinction:

CJ/DJ: "contrastive relation between the verb and other constituents" (Makasso 2012)

→ conjunctive form indicates close relation between verb and what follows

→ disjunctive form indicates there is no special relationship between verb and following constituent

Tonga nouns assign a final H tone to conjoint verbs, but not to disjoint verbs as shown in Figure 3.

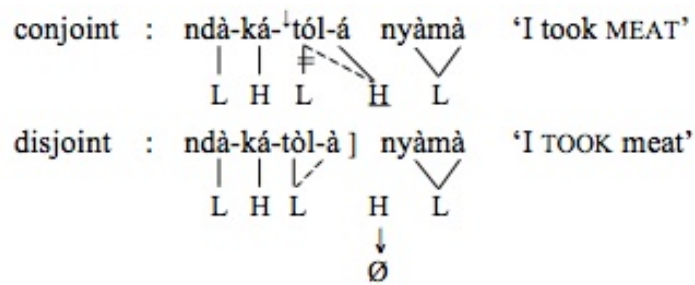


Figure 3: Conjoint-Disjoint distinction in Tonga (Hyman 2013: 7)

Ruling out CJ/DJ distinction in Gyeli: Tonga has a choice to assign a H tone or not in a given TAM category based on information structure. Gyeli doesn't have this option, but the H tone is assigned automatically by the TAM category.

### Metatony in Abo

Hyman & Lionnet (2011) give a phonological analysis: a) Abo metatony "can be accounted for in terms of underlying suffix tones on the verb"; and (b) "is best analyzed as an underlying /-H/ suffix which becomes L at the end of an intonational phrase".

## 6 Conclusion

Gyeli uses two H tones on the syntactic level.

1. One attaches to the final vowel of a finite verb in PRES and INCH.  
It is best analyzed as 'metatony' in the sense of Hyman & Lionnet (2011).  
FUT tense, aspect marking, and negation block the metatonic H tone.
2. The other H tone attaches to underlyingly toneless CH- shape noun class prefixes of the object that is closest to the verb.  
Nominal adjuncts don't take this H tone.  
The nominal H tone is blocked in optative constructions.

In any case, "The nature and origin of this whole tonal phenomenon needs more examination...." (Nurse 2008: 204)

### Questions

Where in the grammar should I treat these H tones? Chapter on its own or scattered across different sections?

How do I best gloss tense marking? Tense is marked by tone, but tones change depending on aspect marking and negation so that there is no typical tone for one tense...

## Abbreviations

1S	first person singular	HL	falling tone
1P	first person plural	ID	identificational marker
2S	second person singular	INCEP	inceptive
2P	second person plural	IO	indirect object
3S	third person singular	L	low tone
3P	third person plural	LH	raising tone
AGR	agreement	nc	noun class
ANA	anaphoric	NEG	negation
ANT	anterior	NOM	nominal
APP	applicative	OBJ	object
BEN	benefactive	PRF	perfect
C	consonants	OM	object marker
CAUS	causative	PRES	present
cl.	class	PRO	pronoun
COM	comitative	PROG	progressive
COMP	complementizer	PROX	proximal
COMPL	completive	PST	past
DEM	demonstrative	QUOT	quotative
DIST	distal	SIM	similative
DO	direct object	TAM	tense, aspect, mood
F	final vowel	V	vowel
FUT	future	σ	syllable
H	high tone		

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