

TONE ON DISYLLABIC NOUNS IN NGWE

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In Ngwe, a language spoken in West Cameroon, most nouns of the language are disyllabic; that is, they have a monosyllabic prefix (CV/V/N) and a monosyllabic stem (CV/CVC). These disyllabic nouns fall into three tonal classes and these tonal classes cut across the noun class system, such that every tonal class includes almost every noun class.

For the purposes of this paper the nouns will be classified as belonging to three tonal classes, designated by the Roman numerals I, II and III. I hope to show the way in which these tonal classes operate in Subject and Object positions in sentences.

In citation form, tone class I has a low-tone prefix followed by a low-tone stem, e.g. ákxú 'lion'. Before pause the low-tone stem is realised as a low fall.

In citation form, tone class II has a low-tone prefix followed by a high-tone stem, e.g. ákxú 'monkey'.

In citation form, tone class III has a high-tone prefix followed by a high-tone stem, but in any longer utterance the stem is realised as low-tone. This low tone is always low level, even before pause. When this low-tone stem is followed by a high-tone syllable, the latter syllable is uttered on an extra high pitch; when followed by a low-tone syllable which is final in an utterance, the low-tone syllable is uttered as a high to low fall. For this reason I have decided to represent the tone on this stem by *, to distinguish it from the low-tone stem of tone class II. Thus ákxú 'rope' or átfāp 'hyena'.

In order to exemplify the operation of these tonal classes in Subject and Object positions, I shall take a very limited set of items and form various sentences with these and the words already cited as examples of each tone-class:

dè: past tense marker, bearing low tone.

tè: negative marker, bearing low tone.

mée: 'only', found in negative constructions only. It bears two high tones of which the second is slightly lower in pitch than the first.

tóŋ: 'call' } verbal bases belonging to Category A and bearing high tone in
bóŋ: 'own/have' } imperative constructions.

déb: 'beat' } verbal bases belonging to Category B and bearing low tone in im-
tēm: 'hit' } perative constructions.

Throughout the following examples, unless otherwise stated, each high tone is lower in pitch than the preceding one, whether intervening low tones occur or not.

EXAMPLE 1 (imperative)

	A	B
I	tóŋ ákxú [- - \] call lion	déb ákxú [- - \] beat
II	tóŋ ákxú [- - -] monkey	déb ákx ú [- - -]
III	tóŋ átfāp [- - -] hyena	déb átfāp [- - -] hyena

In imperative constructions, therefore, the prefix tones of tone classes I and II change from low-tone to high-tone. The difference between the utterances for tone classes I and III lies in the difference between the final tones. In the case of tone class I the final tone is a low fall, in the case of tone class III it is a low level tone. Throughout the above examples the high tone of each prefix is said on the same pitch as the high tone of *tɔŋ*.

EXAMPLE 2 (habitual)

	A	B
I	ńkxúw tɔŋ ńkxúw [_ - / _ -] lion call lion	ńkxúw dɛb ńkxúw [_ - - - \] beat
II	ńkxúw tɔŋ ńkxúw [^ - / _ -] monkey monkey	ńkxúw dɛb ńkxúw [^ - - - -]
III	átɕāp tɔŋ átɕāp [_ - - - -] hyena hyena	átɕāp dɛb átɕāp [_ - - - -]

In Subject position the prefix tone of tone class I remains low and the low-tone stem is low. The prefix tone of tone class III becomes low. The prefix of tone class II becomes high. These statements about the Subject position tones for these three tonal classes are true for all the following examples.

In addition, the verbal base *tɔŋ*, which is realised as a rising tone after subject nouns belonging to tone classes I or II, is said on an extra high pitch after a subject noun belonging to tone class III.*

EXAMPLE 3(a) (negative habitual)

	A	B
I	ńkxúw tè ńkxúw tɔŋ [_ - - - -] lion neg. lion call	ńkxúw tè ńkxúw dɛb [_ - - - -] beat
II	ńkxúw tè ńkxúw tɔŋ [^ - - - -] monkey monkey	ńkxúw tè ńkxúw dɛb [^ - - - -]
III	átɕāp tè átɕāp tɔŋ [_ - - - -] hyena hyena	átɕāp tè átɕāp dɛb [_ - - - -]

As will be observed, in negative constructions the object noun precedes the verbal base. Tone class I prefix and tone class II prefix are high-tone in the object position of negative constructions. Tone class III prefix is also high in the object position of negative constructions. But in the example cited above, *tè* has become high-tone following a subject noun of tone class III; as a result, the prefix of the tone class III object noun, which follows immediately after *tè*, becomes low. In other words the prefix of tone class III is high in the object position of this construction, provided that the subject noun is NOT of tone class III.*

*Since going to press another way of interpreting these features has become evident. A later publication will discuss this.

In addition, it will be seen that the verbal base *tɔŋ* carries an extra high tone when it follows an object noun of tone class III; and that the verbal base *dɛb* becomes a high to low fall when following a noun of tone class III.

EXAMPLE 3(b)

Thus if we take the following pair of sentences:

- | | | | | | | | | | | | |
|---|----|------|------|-----|---------|----|------|------|-----|---|---|
| I | à | tè | ákxú | bóŋ | and III | à | tè | ákxú | bóŋ | | |
| | [| - | - | - | - | | [| - | - | - | - |
| | he | neg. | lion | own | | he | neg. | rope | own | | |

or if we take the pair of sentences:

- | | | | | | | | | | | |
|---|----|------|------|-----|---------|----|------|------|-----|---|
| I | à | tè | ákxú | tɛm | and III | à | tè | ákxú | tɛm | |
| | [| - | - | - | - | | [| - | - | - |
| | he | neg. | lion | hit | | he | neg. | rope | hit | |

we find that in both pairs of sentences the difference between the two utterances is realised not on the two object nouns, but on the tone of the following verbal base.

EXAMPLE 4 (negative habitual with *mée*)

- | | | | | | | | | | | |
|-----|--------|------|------|--------|------|-------|----|-----|-------|-----|
| | A | | | | | B | | | | |
| I | ákxú | tè | mée | ákxú | tɔŋ | ákxú | tè | mée | ákxú | dɛb |
| | [| - | - | - | - | | [| - | - | - |
| | lion | neg. | only | lion | call | | | | beat | |
| II | ákxú | tè | mée | ákxú | tɔŋ | ákxú | tè | mée | ákxú | dɛb |
| | [| - | - | - | - | | [| - | - | - |
| | monkey | | | monkey | | | | | | |
| III | àtɕāp | tè | mée | àtɕāp | tɔŋ | àtɕāp | tè | mée | àtɕāp | dɛb |
| | [| - | - | - | - | | [| - | - | - |
| | hyena | | | hyena | | | | | | |

tè becomes high-tone after a subject noun of tone class III. This high tone on *tè* matches the pitch of the first high tone of *mée*. The pitch of the stem tone of the tone class II object noun matches that of the verbal base *tɔŋ*. The prefix of tone class III becomes low in the object position in this construction.

EXAMPLE 5 (past)

- | | | | | | | | | | | |
|-----|--------|------|------|--------|---|-------|----|------|-------|---|
| | A | | | | | B | | | | |
| I | ákxú | dè | tɔŋ | ákxú | | ákxú | dè | dɛb | ákxú | |
| | [| - | - | - | - | | [| - | - | - |
| | lion | past | call | lion | | | | beat | | |
| II | ákxú | dè | tɔŋ | ákxú | | ákxú | dè | dɛb | ákxú | |
| | [| - | - | - | - | | [| - | - | - |
| | monkey | | | monkey | | | | | | |
| III | àtɕāp | dè | tɔŋ | àtɕāp | | àtɕāp | dè | dɛb | àtɕāp | |
| | [| - | - | - | - | | [| - | - | - |
| | hyena | | | hyena | | | | | | |

The prefix tones are the same as for Example 2. Throughout this example, however, the tones of both verbal bases are high.

EXAMPLE 6 (negative past)

	A	B
I	ñkxù dà tè ñkxù tɔŋ [_ _ _ _ - - -] lion past neg. lion call	ñkxù dà tè ñkxù dɛb [- - - - - \] beat
II	ñkxù dà tè ñkxù tɔŋ [- - - - - - -] monkey monkey	ñkxù dà tè ñkxù dɛb [- - - - - - \]
III	átɕáp dà tè átɕáp tɔŋ [- - - - - - -] hyena hyena	átɕáp dà tè átɕáp dɛb [- - - - - - \]

The prefix tones are the same as those in Example 3(a) with the exception that the prefix tone of tone class III is high whatever the tone class of the subject noun.

EXAMPLE 7 (negative past with méé)

	A	B
I	ñkxù dà tè méé ñkxù tɔŋ [_ _ _ _ \ - - -] lion past neg. only lion call	ñkxù dà tè méé ñkxù dɛb [- - - - \ - - -] beat
II	ñkxù dà tè méé ñkxù tɔŋ [- - - - \ - - -] monkey monkey	ñkxù dà tè méé ñkxù dɛb [- - - - \ - - -]
III	átɕáp dà tè méé átɕáp tɔŋ [_ _ _ - \ - - -] hyena hyena	átɕáp dà tè méé átɕáp dɛb [- - - - \ - - -]

As in Example 4, the pitch of the stem tone of the tone class II object noun matches that of the verbal base tɔŋ, and the prefix tone of tone class III is low in the object position.

The above description of the tone changes can be summarised as follows:

1. Only the tones of the prefixes change in different constructions. (It must be noted however that the stem tone of tone class III bears a high tone in citation form, but is low level in any longer utterance.)

2. The changes on the prefix tones can be represented thus:

	Subject position	Object after imperative or negative (excluding méé)	Object after verbal base or méé
I	low	high	low
II	high	high	low
III	low	high (see comment below example 3(a) on p. 34)	low

3. It is probable that some principle of polarity of tone is operating as regards the prefix system when it operates in the object position.¹ In every case the prefix of the object is low-tone if the preceding tone is high and high-tone if the preceding tone is low. Further investigation is needed to see how generally this rule applies in more complex situations.

¹ I am grateful to Dr. Paul Schachter for first bringing this feature to my notice.

On the other hand this principle of polarity does not operate after the imperative form of the verbal base of Category A. It is perhaps for this very reason that the high tone of the verbal base matches in pitch the high tone of the noun prefix.

4. The term ASSIMILATED HIGH TONE² might be applied to the feature operating with nouns of tone class III. This would explain why the realisation of this low-tone stem was always low level and never low fall in utterance final position. It might also explain why verbal bases belonging to Category A are always said on an extra high pitch when immediately following a tone class III noun; and why verbal bases of Category B, in utterance final position, become a high low fall rather than a low fall when immediately following a tone class III noun.

5. Further investigation is needed to check when and for what reason, succeeding high tones sometimes are said on the same pitch.

6. In conclusion the above examples could be generated by the following set of ordered rules:

- | | |
|--|---|
| # S # | |
| 1. S → NP + VP | S: sentence |
| 2. NP → {Pre-V} | NP: noun phrase |
| 3. Pre-V → a _L , ... | VP: verb phrase |
| 4. VP → V {N} | Pre-V: pre-verbal element |
| 5. V → (de _L) te _L (mee _{H-H}) Base | N: noun |
| 6. Base → Base {A} | Post-V: post-verbal element |
| 7. Base A → tɔŋ, bɔŋ, ... | H-H: the first H is the highest tone in the utterance |
| 8. Base B → deɓ, tɛm, ... | |
| 9. N → {CP _H + Stem _H | CP: class prefix |
| 10. CP _L + Stem _L → ñkxú (lion), ... | |
| 11. CP _H + Stem _H → ñkxú (monkey), ... | |
| 12. CP _L + Stem _{L-H} → ñkxú (rope), átʃɔp (hyena), ... | |
| Opt. T ₁ # NP + VP # ⇒ # NP # | |
| T ₂ # [CP _H + Stem _H]
[CP _L + Stem _{L-H}] # ⇒ # [CP _L + Stem _H]
[CP _H + Stem _H] # | |
| T ₃ X + te _L (mee) + Base [A]
[B] + N + Y ⇒ | Ex. 3(a and b),
4, 6, 7 |
| X + te _L (mee) + N + Base [H]
[L] + Y | |
| Opt. T ₄ X + NP + Base [A]
[B] + Y ⇒ + Base X [H]
[L] + Imp.m. + Y | Ex. 1 |
| | Imp.m.: imperative marker |

²This is by analogy with Dr. Bamgbose's term ASSIMILATED LOW TONE, though I realise that the usage here is somewhat different.

T₅ X + Base + Imp.m. + CP + Y $\Rightarrow$ X + Base + CP_{H'} + Y Ex. 1
 H': high tone matching preceding or following high tone

T₆ X + NP + (de_L) Base $\begin{bmatrix} A \\ B \end{bmatrix}$ + CP + Y $\Rightarrow$ Ex. 2, 5

X + NP + (de_L) Base $\begin{bmatrix} L+H \\ H \end{bmatrix}$ + CP_L + Y

L+H: low to high rise

T₇ X + de_L + Base + Y $\Rightarrow$ X + de_L + Base_H + Y Ex. 5

T₈ $\nRightarrow$ CP + Stem_{L-H} + Base_L + H + Y $\Rightarrow$ $\nRightarrow$ CP + Stem_{L-H} + Base_H + Y Ex. 2

T₉ X + Stem_{L-H} + te_L + Y $\Rightarrow$ X + Stem_L + H + te_H + Y Ex. 3(a)

T₁₀ X + te_H + mee + Y $\Rightarrow$ X + te_{H'} + mee + Y Ex. 4

T₁₁ X + te $\begin{bmatrix} H \\ L \end{bmatrix}$ + CP + Y $\Rightarrow$ X + te $\begin{bmatrix} H \\ L \end{bmatrix}$ + CP $\begin{bmatrix} L \\ H \end{bmatrix}$ + Y Ex. 3(a) and (b), 6

T₁₂ X + mee + CP + Y $\Rightarrow$ X + mee + CP_L + Y Ex. 4, 7

T₁₃ X + mee + CP + Stem_H + Base_H + Y $\Rightarrow$
 X + mee + CP + Stem_H + Base_{H'} + Y Ex. 4, 7

T₁₄ X + te(mee) + CP + Stem_{L-H} + Base $\begin{bmatrix} H \\ L \end{bmatrix}$ $\nRightarrow$
 X + te(mee) + CP + Stem_{L-H} + Base $\begin{bmatrix} H+H \\ H+L \end{bmatrix}$ $\nRightarrow$
 Ex. 3(a) and (b), 4, 6, 7
 H+H: extra high pitch
 H+L: high to low fall

P. rules:

L $\nRightarrow$ $\rightarrow$ low fall

L-H $\rightarrow$ low

H₁ . . . H_n $\rightarrow$ H_n is lower than H_{n-1}

de + te $\rightarrow$ da + te