

# TONE PATTERNS IN IBIBIO NOUN PHRASE STRUCTURES

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This study was based on the assumption that Ibibio is a register tone language with both level and contour types as well as predictable downdrift. It is also assumed that tonal modification occurs when tone-bearing segments enter into structures of units larger than the word. On the basis of these assumptions, this study has revealed that tonal alterations in Ibibio noun phrase structures operate from left to right, whether the noun phrase has the NP [M H NP or the NP H M] NP structure, reflecting, respectively, the modifier-noun and the noun-noun combinations. Rules have been formulated to account for the tone raising and tone lowering processes in Ibibio noun phrase constructions, taking into account processes motivated by level and by contour tones. The phenomena of vowel deletion and tone stability, floating tone docking, and downdrift have been highlighted. A few data have been presented to illustrate the reposing of embedded clauses at M in the noun phrase.

Nous avons présenté dans cette étude des données qui démontrent que les modifications tonales dans les syntagme nominal en langue ibibio s'effectuent de gauche à droite, compte tenu des combinaisons de nom-nom et adectif-nom dans le SN. Nous avançons l'hypothèse d'un ton flottant pour expliquer le rehaussement de ton dans le préfixe de l'élément de droite, tandis que l'abaissement, éventuellement par faille, des tons associés aux syllabes ultérieures de cet élément de droite s'explique par la règle phono-syntaxique de la langue qui ne permet pas une suite de hauts dans les dernières syllabes d'un SN. Le processus de la simplification tonale se constate aussi à la transition entre les éléments de gauche et ceux de droite au sein du SN. La structure B-H ou B-HB que l'on trouve dans la représentation sous-jacente de l'élément de droite dans le SN se présente comme obstacle à l'abaissement de ton motivé par la structure du HB ou H-B de la/des syllabe(s) finale(s) de l'élément de gauche. Notre analyse se borne aux données concernant les structures binaires et ternaires du SN.

## 0. INTRODUCTION

This article aims to present data to illustrate tonal modification in the various noun phrase (NP) structures in Ibibio,<sup>1</sup> to highlight the influence of left-hand components on right-hand components, bearing in mind the underlying structures of the components, especially of the left-hand components.

The study is limited, in the first place, to modifier-head structures and to noun-noun associative structures in which the second noun qualifies or post-modifies the first. In modifier-head structures, the modifier (M) position is occupied by the attributive adjective which precedes the head noun as in (1).

- |     |        |       |
|-----|--------|-------|
| (1) | M      | H     |
| a.  | àffá   | úsàn  |
|     | white  | plate |
| b.  | úfá    | úsàn  |
|     | new    | plate |
| c.  | ètàk   | úsàn  |
|     | little | plate |
| d.  | àyóghò | úsàn  |
|     | full   | plate |

In noun-noun associative structures the head precedes the modifier as in (2).

<sup>1</sup> Ibibio is classified by Faraclas (1989:381) under the Lower Cross subgroup of the Delta-Cross group of the Niger-Congo family. This classification can be seen as a refinement of earlier works, notably those of Greenberg (1963), Bennett and Sterk (1977), Williamson (1982), and Connell (1994). The language is spoken in Akwa Ibom State of Nigeria. The analysis uses data from the speech form now spoken in Ibiono South and parts of Ibiono West, an area sharing common boundaries with Itak and Ediene clans to the northwest, with Oku, Ofot, and Itam to the south and southwest, and with Ibiono Central to the east.





Some analysts have posited the floating tone hypothesis as motivating the raising of the initial tone in the head noun. This hypothesis holds that there is an underlying floating tone between the left-hand and the right-hand components of the NP which docks rightward onto the initial syllable of the right-hand component, assimilating with that initial tone if it is identical, or replacing it if it is different (cf. Essien 1992 and Essien forthcoming). Essien (1992:61) describes such underlying floating tone as a non-associated tone "... the connective or relational tone." Both Essien (1992) and Essien (forthcoming) use the noun-noun associative structure in their analyses.

The tone lowering process can be seen as motivated by the phonosyntactic rule of the language which does not allow the H-H sequence in the final component of a syntactic structure, like the NP in this case.

## 1.2 INFLUENCE OF THE MODIFIER'S HL FALLING TONE ON THE TONAL PATTERN OF THE HEAD NOUN

Next we will look at NPs with prehead modifiers the final syllables of which carry the HL falling tone or the H-L sequence word-finally.

- (8)
- |             |        |       |        |
|-------------|--------|-------|--------|
| UF          |        | SF    |        |
| a. àkwá     | ímá    | àkwá  | ìmà    |
| L-HL        | H-H    | L-H   | L-L    |
| great love  |        |       |        |
| b. éfí      | ùfàn   | éfi   | ùfàn   |
| H-HL        | L-L    | H-H   | L-L    |
| good friend |        |       |        |
| c. àkpáŋ    | ébèn   | àkpáŋ | èbèn   |
| L-HL        | H-HL   | L-H   | L-L    |
| unripe pear |        |       |        |
| d. àyóghò   | ékpémé | àyógh | èkpémé |
| L-H-L       | H-H-H  | L-H   | L-L-L  |
| full bottle |        |       |        |

There are two tonal processes involved in the derivation of the surface forms in (8). First, the H associated with the initial syllable of the head noun is changed to L (maybe by the rightward spread of the L component of the HL fall associated with the final syllable of the prehead modifier over the head noun's prefix, a spread extending to the subsequent syllable(s) (L, H, or HL) in the head noun). Next, the HL associated with the final syllable of the prehead modifier is simplified to H, in anticipation of the L now found on the initial syllable of the head noun, this maintaining the HL pattern at the word boundary. This simplification gives the modifier the H-H or the L-H structure, as is found not only in disyllabic modifiers but also in the trisyllabic modifier in (8d), which has lost its final vowel in the derivation, the resulting floating L tone docking rightward to fuse with the L on the head noun's prefix. The two tonal processes can be formalized, respectively, as Rules 3 and 4.

- (9) Rule 3  $\begin{bmatrix} H \\ HL \\ L \end{bmatrix} \rightarrow L/HL\_ \#$

That is, all H, HL, and L tones associated with the head noun become L when the head noun combines with a prehead modifier in a modifier-noun structure. This lowering is related to the tone pattern of the modifier, which carries the HL falling tone or the H-L sequence word-finally.

- (10) Rule 4 HL  $\rightarrow H/ \_ \#L$

That is, the HL associated with the final syllable of the modifier becomes H before the derived L associated with the head noun's prefix. (# is used for word boundary; cf. Hyman 1975:223, Goldsmith 1976:39, and Anderson 1988:273).

### 1.3 BARRIER TO LOWERING

We now turn to NPs in which the head noun has the L-H or the L-HL tone pattern in the underlying representation. First, we look at the tone patterning in such head nouns when combined with prehead modifiers whose final syllables carry the HL falling tone or the H-L sequence.

- |      |                  |              |              |              |
|------|------------------|--------------|--------------|--------------|
| (11) | UF               |              | SF           |              |
|      | a. <b>éfi</b>    | <b>èbé</b>   | <b>éfi</b>   | <b>èbé</b>   |
|      | H-HL             | L-H          | H-H          | L-H          |
|      | good husband     |              |              |              |
|      | b. <b>àkwâ</b>   | <b>ùkpê</b>  | <b>àkwá</b>  | <b>ùkpê</b>  |
|      | L-HL             | L-HL         | L-H          | L-HL         |
|      | large pit        |              |              |              |
|      | c. <b>àyóghò</b> | <b>ìkpán</b> | <b>àyógh</b> | <b>ìkpán</b> |
|      | L-H-L            | L-H          | L-H          | L-H          |
|      | full spoon       |              |              |              |

We can observe that in (11) there is no change in the tonal structure of the head noun when combined with prehead modifiers whose last syllables carry the falling tone. This is unlike what happens in (8), where the HL of the modifiers' final syllables causes a change in the tonal structure of the head noun from H, HL, or L to L.

In this analysis we look at tonal modification in the NP in the context of the combination of a right-hand component with a left-hand component. The change in the tonal structure of the pre-modified head noun, in this kind of analysis, is to be seen as motivated more by the tone pattern of the prehead modifier than by the tonal structure of the head noun itself. When forms like **ímá** 'love' and **ébèn** 'pear' are pronounced in isolation, their tonal structures remain H-H and H-HL, respectively. But when they combine with attributive adjectives as in (8a) and (8c), the H and HL tones are changed to L; and we have seen that this tone lowering is related to the HL structure of the prehead modifier's final syllable.

But this is not the case with the data in (11). The H and HL tones associated with the head nouns' final syllables are not changed to L. And the head noun in each case is tonally structured L-H or L-HL in the underlying representation. We can therefore say that all underlying H or HL tone in the head noun will yield to lowering motivated by the terminal HL of the prehead modifier, the exception being the ones in the head nouns structured L-H or L-HL (cf. Essien 1992:61). It is on the basis of this argument that we posit the barrier hypothesis, suggesting that the L-H or L-HL associated with the head noun in the underlying representation is a barrier to the absolute lowering (or change from H or HL to L) motivated by the terminal HL in the prehead modifier.

Next we look at the phenomenon of downstepping in the head noun when combined with a prehead modifier, the head noun patterned L-H (-H) in the underlying representation (cf. Anderson 1988).

- |      |                 |             |               |             |
|------|-----------------|-------------|---------------|-------------|
| (12) | UF              |             | SF            |             |
|      | a. <b>ìdíók</b> | <b>èbé</b>  | <b>ìdíók</b>  | <b>ébé</b>  |
|      | L- $\bar{H}H$   | L-H         | L- $\bar{H}H$ | H-!H        |
|      | bad husband     |             |               |             |
|      | b. <b>nnàn</b>  | <b>ífòd</b> | <b>nnàn</b>   | <b>ífòd</b> |
|      | L-L             | L-H         | L-L           | H-!H        |
|      | blind witch     |             |               |             |

- |   |   |
|---|---|
| c. <b>úfá m̀béd</b><br>H-H L-H<br>new law/rule            | <b>úfá m̀béd</b><br>H-H H-!H            |
| d. <b>̀ntàghá àsían</b><br>L-L-H L-HH<br>tattered pride   | <b>̀ntàgh ásían</b><br>L-L H-!H H       |
| e. <b>̀ndìsímé ñkára</b><br>L-L-H-H L-H-H<br>stupid trick | <b>̀ndìsímé ñkára</b><br>L-L-H-H H-!H-H |

In (12), the simple tone (L or H) associated with the prehead syllables, triggers off the tone raising in the head noun's prefix, just as we observed in (7). But with the head noun structure L-H(-H) in its underlying representation, the tone associated with subsequent syllable(s) is not completely changed to L, but only reduced to !H, unlike what we observed in subsequent syllables of head nouns in (7).

Finally, we look at NPs in which the head noun, with the underlying structure L-HL, is premodified by attributive adjectives whose final syllables carry the simple L or H tone.

- |  |                                      |
|--|--------------------------------------|
| (13) UF  | SF                                   |
| a. <b>̀nsáád èkpài</b><br>L-HH L-HL<br>dry fish        | <b>̀nsáád ékpài</b><br>L-HH H-!HL    |
| b. <b>̀ndék àbù</b><br>L-H L-HL<br>fresh shrimp        | <b>̀ndék ábù</b><br>L-H H-!HL        |
| c. <b>̀ndìsí ùt̀lɔ</b><br>L-L-H L-HL<br>live worm      | <b>̀ndìsí ùt̀lɔ</b><br>L-L-H H-!HL   |
| d. <b>̀ètək ùt̀lɔ</b><br>L-L L-HL<br>little/small worm | <b>̀ètək ùt̀lɔ</b><br>L-L H-!HL      |
| e. <b>̀àbúbíjd ùt̀lɔ</b><br>L-H-H L-HL<br>black worm   | <b>̀àbúbíjd ùt̀lɔ</b><br>L-H-H H-!HL |

Again, as in the case observed in (7), the tone associated with the head noun prefix is raised, following a prehead modifier whose final syllable carries the simple L or H tone. The HL tone on the final syllable of the head noun changes, not to L, but to !HL surviving the absolute lowering influence of the prehead modifier observed in (7). The downstepping of the H component of the HL fall on the final syllable of the head noun is an instance of what sometimes happens when two Hs are brought together in a derivation.

The processes in (11), (12), and (13) can be summarized in Rules 5 and 6 in (14) and (15).

- (14) Rule 5  $\left[ \begin{array}{c} \text{H} \\ \text{HL} \end{array} \right] \rightarrow \left[ \begin{array}{c} \text{H} \\ \text{HL} \end{array} \right] / \text{HL} \# \text{L} \underline{\hspace{1cm}}$

That is, in a modifier-noun construction the H and the HL on the final syllable of the head noun remain unchanged where the prefix of the head noun, preceded by a HL falling tone on the prehead modifier, carries the L tone.







## 2. CONCLUSION

It has been observed that tonal processes in Ibibio syntactic structures (in this article the NP structure), operate in a left-to-right direction. That is, tonal modification in the right-hand component of the NP is to a great extent determined by the tone pattern in the left-hand component. We have posited an underlying floating H as motivating the raising of the initial tone of the right-hand component, in the contexts of both the modifier-noun and noun-noun structures. We have also observed the lowering of subsequent tones in the right-hand components of the NP. This lowering has been seen as spreading over all the syllables in the right-hand component where the left-hand component in its underlying representation bears the HL tone word-finally, except where the right-hand component is structured L-H or L-HL in its underlying representation, the initial L acting as a barrier to the change from H or HL to L motivated by a preceding HL. We have also observed cases of tone simplification at word boundary, with the inherent HL or LH structure maintained between the left-hand and the right-hand components of the NP. Finally, we have observed cases of downstepping both where the left-hand component bears the simple L or H tone and where it bears the complex HL tone word-finally.

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