## SENTENCE TONE IN SOME SOUTHERN NIGERIAN LANGUAGES

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The lexical tones of words can be modified in various ways:
1. By essentially phonetic rules, such as tone-spreading (Hyman &
Schuh, 1974): e.g. Yoruba /Low-High/ → [Low-Rising] because Low
'spreads' into the following High. Such phonetic rules result in
phonological change if the conditioning factor is lost.
2. By morphophonemic rules, i.e. rules whose phonetic motivation is
no longer obvious: e.g. in the Kolokuma dialect of Izon two words
which have the same tone pattern in isolation may have different to-
nal effects upon the following word (cf. Williamson, 1965).
3. By the interaction of purely tonal morphemes with the tones of
the normal morphemes which consist of both segments and tones: e.g.
the subject concord marker of Edo is analysed by Amayo (1975) as
having lost its segmental features in practically all contexts, so
that its presence is normally detected only by its tonal effects on
neighbouring morphemes. Purely tonal morphemes appear to be re-
stricted to common grammatical elements.

Lexical tones are also modified to show sentence type. In some
languages such modifications involve changing the absolute but not
the relative pitch of sentences: e.g. in Kana (Ogoni group: tonemes
High, Mid, Low):

Statement:    Lo tɔ.  [--]  'The house.'

Question:     Lo tɔ?  [˜˜]  'The house?'

Exclamation:  Lo tɔ!  [˜˜]  'The house!'

The basic Mid-Mid tone (seen in the statement) is raised for a ques-
tion and raised even more for an exclamation (this is indicated pho-
netically by writing it above the square brackets, i.e. outside the
normal voice range). This type of modification is here called into-
national, and is regarded as comparable to what obtains in a non-
tone language.

Other languages have a second type of modification co-existing
with the intonational type. This involves a change of the tone pat-
tern, not simply a general modification of the absolute pitch, and
is here called sentence tone. In the examples that follow, the tone
system of each language will be summarized and then the sentence
tone modifications will be stated.

### A. YEKHEE (=ETSAKỌ), Ekpheli dialect (North-Central Ẹdoid group), Elimelech (1976):

Basic tones:    H, L

Tone rules:     a) downdrift on each series of highs separated by low
                b) falling and rising glides formed from HL, LH
                c) downstep from simplification of rising glide

Sentence tone: (for nouns; verbal sentence questioning said to be
                different but not specified, Elimelech, 1976, 50):
                1. statement: additional final low added to final
                   high
                2. question: additional final high added to statement
                   tone pattern

Lexical tone patterns of disyllabic nouns:  LL, HL, HH

| Data: | | Statement | Question |
|---|---|---|---|
| 1. | LL 'cup' | Àkpà. [__] | Àkpà? [_⁄] |
| 2. | HL 'house' | Ówà. [‾_] | Ówà? [‾⁄] |
| 3. | HH 'axe' | Údzé. [‾`] | Údzé? [‾˯] |

### B. DEGEMA (Delta Edoid group), personal investigation, analysis tentative:

Basic tones:    H, L; downstep probably predictable

Tone rules:     a) downdrift on each series of highs separated by low
                b) falling glide formed from HL
                c) the final low in a series of lows becomes high
                   (under certain conditions)
                d) all but the first of a final series of highs are
                   downstepped

Sentence tone: 1. statement: basic tones + tone rules
                2. question: final low added to statement tone pat-
                   tern, combines variously with preceding tone
                3. exclamation: general raising of statement tone

Lexical tone patterns of disyllabic nouns:  LL, HH, HL (loanwords only):

| Data | | Statement | Question | Exclamation |
|---|---|---|---|---|
| 1. | LL 'head' | Ùtóm. [_‾] | Ùtòm? [_˯] | Ùtóm! [-‾] |
| 2. | HH 'river' | Édá. [‾‾] | Édà? [‾_] | Édá! [‾‾] |
| 3. | HL 'cat' | Pọ́sì. [‾_] | Pọ́sì? [‾_] | Pọ́sì! [‾_] |
| 4. | LL (?) | Mòyá. [_‾] | Mòyà? [_˯] | Mòyá! [-‾] |
| | | 'He is coming.' | 'Is he coming?' | 'He is coming!' |
| 5. | HH (?) | Ábọ́. [‾‾] | Ábọ̀? [‾_] | Ábọ́! [‾‾] |
| | | 'He is there.' | 'Is he there?' | 'He is there!' |

C. ISOKO (Southwestern Ẹdoid group), Elugbe (1977):

Basic tones:    H, L
Tone rules:     a) falling glide formed from HL
                b) no downdrift
Sentence tone:  1. statement: final series of lows raised to mid
                2. question: additional final low added
                3. exclamation: no raising of final series of lows

Lexical tone patterns of disyllabic nouns:  LL, HH, HL

| Data: | | | Statement | | Question | |
|---|---|---|---|---|---|---|
| 1. | LL | 'native doctor' | Ọ̀bụ̀. | [‒‒] | Ọ̀bụ̀? | [__] |
| 2. | HH | 'warrior' | Ógbá. | [⁻⁻] | Ógbà? | [⁻╲] |
| 3. | HL | 'maize' | Óka�. | [⁻‒] | Óka̖? | [⁻_] |

D. IZON, Kolukuma dialect (Ịjọ group), personal investigation:

Basic tones:    H, L
Tone rules:     a) downdrift on each series of highs separated by low
                b) complex morphophonemic rules
Sentence tone:  1. statement: basic tones + tone rules
                2. question: slight raising of highs, cancellation
                   of downdrift, final low added
                3. exclamation: general raising of highs and of final
                   low; cancellation of downdrift
                4. command: slight raising of highs, cancellation of
                   downdrift

Lexical tone patterns of disyllabic nouns: LH (3 types), HH (2 types), HL

| Data: | | | Statement | | Question | | Exclamation | |
|---|---|---|---|---|---|---|---|---|
| 1. | LH | 'yam' | Bùrú. | [_⁻] | Bùrúu? | [_╲] | Bùrú! | [_⁻] |
| 2. | HH | 'medicine' | Dírí. | [⁻⁻] | Dírîi? | [⁻╲] | Dírí! | [⁻⁻] |
| 3. | HL | 'sail' | Bálà. | [⁻_] | Bálà? | [⁻_] | Bálà! | [⁻-] |

| | | Statement | Question | Exclamation | Command |
|---|---|---|---|---|---|
| 4. | Wòní múdọ́ụ̀. | Wòní múdọ́ụ̀? | Wòní múdọ́ụ́! | Wómíní mú! |
| | [⁻_ ‒⁻⁻] | [⁻_ ⁻╲] | [⁻_ ⁻⁻] | [⁻ ⁻ ] |
| | 'We have gone.' | 'Have we gone?' | 'We've gone!' | 'Let's go!' |

E. NEMBE (Ịjọ group), personal investigation:

Basic tones:    H, L
Tone rules:     a) downdrift on each successive high even without
                   intervening low
                b) complex morphophonemic rules

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Sentence tone: 1. statement: final low tone becomes high
               2. question: final high tone becomes low
               3. exclamation: general raising of highs; cancella-
                  tion of downdrift after low
               4. command: additional final low added to statement
                  pattern

Lexical tone patterns of disyllabic nouns:  LH, LL, HL

| Data: | | | Statement | | Question | | Exclamation | |
|---|---|---|---|---|---|---|---|---|
| 1. | LH | 'yam' | Bùrú. | [_⁻] | Bùrù? | [__] | Bùrú! | [‒⁻] |
| 2. | LL | 'book' | Dìrí. | [_⁻] | Dìrì? | [__] | Dìrí! | [‒⁻] |
| 3. | HL | 'Ebi' | Ébí. | [⁻‒] | Ébì? | [⁻_] | Ébí! | [⁻‒] |

| | Statement | Question | Exclamation | Command |
|---|---|---|---|---|
| 4. | Ébì bọ́. | Ébì bọ̀? | Ébì bọ́! | Ébì, bọ́ọ́! |
| | [⁻_ ‒] | [⁻_ _] | [⁻_ ] | [⁻_ ╲] |
| | 'Ebi came.' | 'Did Ebi come?' | 'Ebi came!' | 'Ebi, come!' |

F. KALABARI, dialect of Eastern Ịjọ, Jenewari (1977) and personal
investigation:

Basic tones:    H, L, distinctive downstep (ˈ)
Tone rules:     a) downdrift on each series of highs separated by low
                b) complex morphophonemic rules
Sentence tone: 1. statement: a) basic tones + tone rules (for non-
                                emphasized nouns)
                             b) basic tones + (H) ˈH (first H only
                                after L)
                  (for verb forms ending H, NPs ending in pronoun/
                  article, and emphasized nouns, especially in an-
                  swer to a question)
               2. question: basic tones + tone rules
               3. exclamation: as for 1b), plus general raising
               4. command: basic tones + tone rules + additional L

Lexical tone patterns of disyllabic nouns:  LL, HH, HˈH, HL, LH

| Data: | | | Statement a) + Question | | Statement b) | |
|---|---|---|---|---|---|---|
| 1. | LL | 'yam' | Bùrù. | Bùrù? [__] | Bùrúˈú. | [_╲] |
| 2. | HH | 'book' | Dírí. | Dírí? [⁻⁻] | Díríˈí. | [⁻╲] |
| 3. | HˈH | 'house' | Wáˈrí. | Wáˈrí? [⁻‒] | Wáríˈí. | [⁻╲] |
| 4. | HL | 'leopard' | Sírì. | Sírì? [⁻_] | Sírìˈì. | [⁻⌃] |
| 5. | LH | 'Gogo' | Gògó. | Gògó? [_⁻] | Gògóˈó. | [_╲] |

| Statement b) | Question | Exclamation | Command |
|---|---|---|---|
| 6. Ò bòté˙ẹ́ | Ò bòté? | Ò bòté˙ẹ̀! | Ò bóò! |
| [_ _ ⌇] | [_ ¯ ¯] | [_ _ ⌇] | [_ ⌇] |

'He has come.'  'Has he come?'  'He has come!'  'Let him come!'

G. IGBO, Green and Igwe (1963) and personal investigation:

Basic tones:  H, L, distinctive downstep (˙)

Tone rules:  a) downdrift on each series of highs separated by low

  b) falling and rising glides formed from HL, LH

  c) morphophonemic rules

Sentence tone: 1. statement: basic tones + tone rules

  2. question: a) intonational raising of high, etc.,
      in nominal sentences

    b) inseparable subject pronouns change
        from H to L, in verbal sentences

  3. exclamation: a) intonational raising of high and
      lowering of low

    b) cancellation of downdrift

  4. command: basic tones + tone rules

Lexical tone patterns of disyllabic nouns:  HH, LH, HL, LL, H˙H

| Data: | | Statement | Question | Exclamation |
|---|---|---|---|---|
| 1. | HH 'head' | Ísí. [¯¯] | Ísí? [¯ ¯] | Ísí! [¯ ¯] |
| 2. | LH 'rat' | Òké. [_¯] | Òké? [_ ¯] | Òké! [_ ¯] |
| 3. | HL 'house' | Úlò. [¯_] | Úlò? [¯ _] | Úlò! [¯ ⌇] |
| 4. | LL 'earth' | Àlà. [__] | Àlà? [⌇ _] | Àlà! [_ _] |
| 5. | H˙H 'tooth' | É˙zé. [¯ ̄] | Ézé? [¯ ̄] | É˙zé! [¯ ̄] |
| 6. | | Ó jere ahíá. | Ò jere ahíá? | Ó jere ahíá! |
| | | [¯ _ _ ⌐ ¯¯] | [_ _ _ ¯ ¯¯] | [¯ _ _ ¯ ¯¯] |

'He went to  'Did he go to  'He went to
market.'  market?'  market!'

### Summary and conclusions

The statement is the most basic form of sentence, for:

a) Most commonly the statement form uses only basic forms plus general tone rules (Kana, Degema, Ịzọn, Kalaḅarị (type a), Igbo), whereas questions and exclamations usually require extra rules.

b) Questions are normally formed by addition to the statement form (Yẹkhee), or to the basic/statement form (Degema, Isoko, Ịzọn).

c) The only case where the statement form appears more complex than the question is in Kalaḅarị b), and this is apparently an emphatic

form which has become generalized for certain grammatical categories.

d) Exclamations are formed by modification of the statement, never of the question.

CONCLUSION 1. The statement is the most basic sentence type. This is probably a universal.

Questions are formed from statements by:

a) addition of a floating low tone (Degema, Isoko, Ịzọn)

b) replacement of a high by a low tone (Nembe, Igbo in verbal sentences)

c) addition of a floating high tone (Yẹkhee)

d) general raising (Kana, Ịzọn, Igbo in nominal sentences)

e) cancellation of downdrift (Ịzọn)

CONCLUSION 2. Yes/no questions are marked by a question marker, by intonational raising (including cancellation of downdrift), or by both. This is probably a universal.

Question markers are morphemes which are segmental + tonal or purely tonal (cf. the introduction). The floating low tones of Degema, Isoko, and Ịzọn result from morphemes which have lost their segmental features; e.g. in Engenni (Delta Ẹdoid group, closely related to Degema) the sentence-final question marker is à (Thomas, 1969).

It is also possible for the floating tone to <u>replace</u> the adjacent segmental tone (Nembe, Igbo). Historically, the floating tone first combines with the adjacent tone to form a glide (Yẹkhee, Degema, Isoko, Ịzọn); later, the glide is simplified to a level tone:

Nembe:  *H + `  >  *F  >  L

Igbo:  *` + H  >  *R  >  L

CONCLUSION 3. Question markers are morphemes which in a tone language always include tone and sometimes lose their segmental features, after which they are realized like other floating tones. There is <u>no</u> universal that question markers must have high tone, or that they must be sentence-final.

Exclamations are marked by the raising of high tones (sometimes also of low tones) to a greater extent than in questions, and sometimes by the cancellation of downdrift (Ịzọn, Nembe, Igbo) and the lowering of low tones (Igbo).

CONCLUSION 4. Exclamations are marked by the raising of tones, especially high ones, and by the increasing of the intervals between tones. This is probably a universal.

Commands seem not to be primarily marked by tone/intonation changes. In the reported cases they either have the same pattern as statements (Igbo) or the statement pattern with an additional floating tone marker (Nembe, Kalaḅarị), or with slight raising and cancellation of downdrift (Ịzọn).

CONCLUSION 5. Commands either resemble statements or differ from them only by the addition af an imperative marker, or by slight raising and elimination of downdrift. This is probably a universal.

References

Amayo, A. (1975): "The structure of verbal constructions in Ẹdo (Bini)", J. of West Afr. Lang. 10:1, 5-27.

Elimelech, B. (1976): A Tonal Grammar of Etsakọ, UCLA Working Papers in Phonetics, 35.

Elugbe, B.O. (1977): "Some implications of low tone raising in Southwestern Ẹdo", Stud. in Afr. Ling., Supplement 7, 53-62.

Green, M.M. and G.E. Igwe (1963): A Descriptive Grammar of Igbo, Berlin: Akademie-Verlag and London: Oxford University Press.

Hyman, L.M. and R.G. Schuh (1974): "Universals of tone rules: evidence from West Africa", Linguistic Inquiry 5, 81-115.

Jenewari, C.E.W. (1977): Studies in Kalaḅari Syntax, Ph.D. thesis, University of Ibadan.

Thomas, E. (1969): A Grammatical Description of the Engenni Language, Ph.D. thesis, University of London.

Williamson, K. (1965): A Grammar of the Kolokuma Dialect of Ijọ, London: Cambridge University Press.