THE LIMITS OF DOWNSTEP IN ÁGBÓ SENTENCE-PROSODY†

Victor Manfredi
Boston University African Studies Center
270 Bay State RD
Boston MA 02215

ABSTRACT

A recorded corpus1 of some 80 nonspontaneous Ágbó2 examples shows systematic resetting of downstepped pitch within the minimal sentence. As this phenomenon is not independent of a preceding downstep, and can never cumulate upward, it is precisely not ‘upstep’ (pace Meix et al. 1975; Snider 1990) but rather antidownstep or downstep-reset. Contra expectations of the reigning phonological model of downstep (e.g. Clements 1981), downstep-reset is limited neither to clausal boundaries (where trivially it does occur) nor to performance contexts of maintaining adequate pitch range. A first, impressionistic pass over the Ágbó corpus readily identifies two linguistic contexts for downstep-reset:

- After word final downstep before phrase boundary (tracks 2, 3, 13, 26, 28, 31, 33, 41, 48, 50, 52, 63, 70-72, 74, 79, 80).
- After a verb in which lexical H and L are neutralized (tracks 21, 22, 25, 32-35, 37, 39, 41, 43, 45-47, 68-70, 72, 76, 77).

This architone effect regularly occurs, inter alia, before the negative/relative suffix -ni.

In a framework of tone-metrical licensing (Bamba 1992, Manfredi 1992), the two downstep-reset contexts share one property: a H tone in a weak position. The configurations which predict weak H are found in surface syntax. Weak H also accounts for downstep-reset in the Abâńkelele dialect—previously claimed to have a so-called ‘upstep’ juncture—and in standard Igbo.

1. GARDEN-PATH TONEMARKING

The problem addressed in this paper was noticed nearly 40 years ago. Transcribing some sentences of ShiTswa (a Benue-Congo language of Mozambique) in 1953, Welmers noticed a failure of deterministic tonemarking. Having convincingly assigned ShiTswa to the ‘terraced-level’ type later codified by Stewart (1965), based on the cumulative pitch lowering which occurs automatically between successive H-tone domains, he was surprised to observe a clear contrast... after low, between a nonlow at the same level as the preceding nonlow and a nonlow at a slightly lower level. (1973: 87)

Such a contrast creates a garden path for the application of a standard tone orthography comprising three rules:

- H- and L-bearing syllables are individually marked [·] and [· ] respectively.
- Downstep (Stewart’s “automatic downstep”) occurs between H-bearing syllables across L-bearing syllables.
- (“Nonautomatic”) downstep between two adjacent H-bearing syllables is marked [ ! ].

To demonstrate the breakdown of tonemarking, Welmers (1973: 91f) cites the following paradigm:

la. Vâmùwónà múfána. ‘They see [the] child’
   3pl.see... child

b. Vâmùwónà múfána wa mùbikì.  ‘They see [the] cook’s child’
   3pl.see... child of chief

c. Vâmùwónà múfána wa 1hosì. ‘They see [the] chief’s child’
   3pl.see... child of chief

The imparsable syllable is wa ‘of’ in (1b) and (1c): no available tone diacritic fits that word’s pitch. Consider the possibilities. We can’t be marked L: it is pronounced higher than the flanking L-bearing syllables in (1b), and higher than the downstepped H in (1c). Neither can wa be marked H: it is pronounced on the same pitch as the middle syllable of múfána—rather than on a lower pitch which it would be expected to have as the bearer of a well-behaved H tone. Thus,


1Text given in full below, with four pitch tracks. The examples—elicited to test tone classes of monosyllabic verb roots—are either gnomonic, quasi-proverbial sentences with no marked focus; or mini-discourses with controlled focus structure. A hifi recording of the corpus, spoken by one person (not in real time) on one occasion, has been deposited in the phonetics lab, Williams Hall, University of Pennsylvania. Track numbers refer to the file labelled ‘home/myl/db/agbo’.

2Ágbó is the westernmost form of Igbo in the historical sense. Colonial/federal governments and their missionary/academic allies carved the periphery of the Igbo-speaking area into ethnic districts (e.g. “íkà”, “ízìl”, “íkwéré”) on ideological grounds (kinship, kingship, confession, lexicostatistics). In reality, many of the claimed unique peripheral characteristics are actually found throughout the area; many others are just borrowings from non-Igbo-speaking neighbors; thus, neither sort of evidence proves anything about Igbo-internal relationships (cf. Ònwùjìogwụ 1975).
Welmers is constrained to leave wa without a tonemark, stipulating that this absence means 'same pitch level as nearest previous H'. The unmarked wa is not toneless; it implicitly bears its underlying H as expected, but is preceded by a special juncture which negates the downdrift (automatic downstep) which would ordinarily occur at that point.

As the anomalous, antidownstep juncture occurs only in possessive phrases, all of which are formed with the "associative" morpheme wa, Welmers (1973) conceives a morphological solution: a "phonemic upstep" is assigned to wa itself, as a kind of prosodic prefix whose bizarre nature is excused by its unique distribution. Though the mechanics of his 1973 proposal are certainly ad hoc, the intuition that the antidownstep juncture is construction-specific is consistent with a prosodic government approach—offering at least the prospect of an explanation based on principles of tone-syntax interaction. To explore this possibility, it is first necessary to review some of the elementary relationships of phonological government which pervade the languages of this great, transcontinental family.

2. TONAL PROSODY AS GOVERNMENT

Bamba (1989, 1992) shows that OCP-based, nonlocal pitch effects like downstep, as well as local pitch effects like raising and spreading, reflect the constituency of metrical domains. Bamba's framework is prosodic because the domains in question interact with surface syntax in predictable ways. The basis of this interaction is the core licensing principle which, by hypothesis, is shared by phonology and syntax: the government relation.3 The overall goal of this section is to show that downstep-reset is an example of prosodic licensing in this sense. The first step in the demonstration is to survey some simple cases in the relevant languages.

2.1 Tone and locality

As extended to Benue-Kwa4 languages by Manfredi (1988/1992), prosodic licensing in Bamba's sense is implied by cross-linguistic, and language-internal, distributions of (local) spreading and raising with respect to downstep.

<table>
<thead>
<tr>
<th>Language</th>
<th>Local spreading: H/L</th>
<th>Local raising: H/L</th>
<th>Nonlocal raising: H \ H interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Yoruba</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Agbó</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Ònicha</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Mbáisen</td>
<td></td>
<td>+</td>
<td>(Auslauw)</td>
</tr>
<tr>
<td>Àbánkéléke</td>
<td>+</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ṭsmaalá-Yamba</td>
<td>+</td>
<td>+</td>
<td>+</td>
</tr>
<tr>
<td>Ṭekoyo</td>
<td></td>
<td>+</td>
<td>+</td>
</tr>
</tbody>
</table>

Table 1. Distribution across Benue-Kwa of some local and nonlocal tone effects

The table shows inter alia that L-spreading and L-raising—both being local L tone effects—are in complementary distribution with partial downstep—which is a nonlocal effect, since it cumulates over the entire sentence. It is important to realize that this implication holds robustly even in Ṭsmaalá-Yamba, where only strong L tones spread or raise, and only weak L tones qualify as partial downstep triggers.

3 If, on the other hand, "phonology is different" (Bromburger and Halle 1989), the licensing principles of metrical domains have nothing in common with those of phrasal syntax. As their pessimistic premise rules out prosodic results in advance, one should reject it provisionally and seek generalizations until they appear or until one tires of the search.

4 Benue-Kwa, the largest branch of Niger-Congo, extends from central Côte d'Ivoire (or perhaps from eastern Liberia) to eastern and southern Africa. To date, no phonological (as opposed to lexical) evidence for an internal subgrouping of Benue-Kwa has been offered. A potential candidate for a syntactic isogloss is the movement of a main verb to the position of inflection ("V-to-I movement" cf. Emonds 1978); this occurs in Igbo and eastwards, and in Anyi (or perhaps Akan) and westwards, but not in a central zone extending from Cbe to Yoruba and Edé (cf. Déchaine 1992).

5 Total downstep lowers an H-tone to the pitch level of a non-H-tone in the same context; partial downstep doesn't.

6 In Yoruba, (nonautomatic) downstep occurs only after an elided L tone; it is a total downstep as defined in the preceding footnote, since a downstepped H is lowered at least to the level of M. According to Laníran (1992: 250), Yoruba M is not downstepped, but the preceding H is raised; Yala-Ikom's 'downstepped M' (Armstrong 1975) may be similar.

7 A.k.a. "Izi" or "Izi", an ethnic label promoted in literacy materials, starting shortly before the Nigerian Civil War, by the Ênugwu branch office of the Summer Institute of Linguistics (cf. Meir et al. 1975).

8 A.k.a. "Dschang Bamileke"—studied (and, if I am not mistaken, spoken) by Tadadjeu (1974).

The other complementarity in the table is between total and partial downstep. For nonfinal contexts, one can predict the occurrence of total downstep from L-spreading. In absolute final position (Auslaut), however, total downstep also occurs in Mbaïsen (among several other southern dialects) which lacks L-spread. The multiple sources of total downstep suggest that it is a default which obtains wherever H tone is governed.

The distribution in Table 1 can be studied in terms of tone-metrical interaction. Consider the principles in (2).

2. **principles**

- A metrical governor is stronger than its goveree (H>L>M).\(^{11}\)
- [s] immediately dominates a metrical governor.
- [w] is strictly adjacent to a metrical governor.
- Tonal government iff [s].

The idea in (2), adopted from Bamba (1989/1992), is that two different kinds of licensing relation—respectively tonal government and metrical government—are separately responsible for the local and nonlocal phenomena referred to in (2). The generalization of complementarity follows from the fourth assumption, namely that tonal government (e.g. spreading, raising) is possible only if the tonal governor occupies in a strong metrical position. Since H is the metrical governor in the partial downstep relation, partial downstep excludes L from a strong position, hence L cannot be a tonal governor.

To accommodate the variation observed in Table 1, this framework must be supplemented by the parameters in (3).

3. **parameters**

- (i) The set of tonal governors is \{H\}, \{L\}, \{H, L\}.
- (ii) Tonal government is expressed by \{spread\} \{raise\} \{both\} \{neither\}

The resort to parameters is, in general, problematic, unless (as suggested by Borer 1984, Fukui 1986) they can be reduced to learnable inventories of closed-class (i.e. 'functional') items. Minimally, one would hope that only tonal government needs to be parametrized, at least for the closely languages in question. The required parameter settings are listed in (4).

4. **settings**

<table>
<thead>
<tr>
<th>Language</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yoruba</td>
<td>H, L</td>
</tr>
<tr>
<td>Agbo</td>
<td>H</td>
</tr>
<tr>
<td>Oñicha/Mbaisen</td>
<td>H</td>
</tr>
<tr>
<td>Abánkéléke</td>
<td>H</td>
</tr>
<tr>
<td>Yomalá-Yamba</td>
<td>some L</td>
</tr>
<tr>
<td>Yékoýe</td>
<td>L</td>
</tr>
</tbody>
</table>

For the present, I will set aside issues of parametric learnability or arbitrariness, and proceed to examine cases where syntactic government seems to affect the tonal and metrical relationships just outlined.

### 2.2 Prosodic government

The smallest assumption sufficient to explain downstep-reset is the failure of a licensing condition for downstep. Bamba defines downstep as a nonlocal government relation between tones, mediated by metrical constituency. If tonal government requires syntactic government, then downstep can't follow a tone which is not in a governing position.

5. **licensing**

- Locally, an element is ungoverned iff governing.

- Unlicensed elements incorporate under the local licensed node, e.g.:
  - (a) Domain-initial L incorporates under following [s].
  - (b) Domain-final H incorporates under preceding [w].

(5a) accounts for initial L-raising (also in Edó, cf. Elugbe 1977). (5b) follows from the definitions in (2), and directly advances the goal of this paper to account for the possibility and distribution of weak H tones.

The consequence of (5b) is illustrated in (6a). The filled weak node is unlicensed: it doesn't govern anything because it is final, and it isn't governed since it is not weaker than the preceding strong node. Incorporation of stray H yields (6b).

---

10 Most of these principles simply recap the definitions of Liberman and Prince (1977).

11 This hierarchy couldn't be valid in a true ‘upstep’ language, if any exists. No such language has yet been documented.

12 Lániran finds L-raising only concomitant with H-raising; her algorithm (1992: 237f.) involves a relation called “upstep”, which actually applies right-to-left (n.b. backwards in time) across tonal feet. That this is indeed an example of raising is shown by her observation that the first H’s extra height factor does not affect the level of an initial L.
Prosodic licensing has numerous empirical consequences in Igbo. For example, consider the well-known restriction of lexical downstep to the final syllable, cf. the Ònjicha forms in (7):

<table>
<thead>
<tr>
<th>Noun</th>
<th>Tone</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ọhụ na 'sheep'</td>
<td>ūžọ 'path'</td>
<td>ọhụ uzọ 'door(way)'</td>
</tr>
<tr>
<td>ọbị 'dog'</td>
<td>ọbị 'small creature'</td>
<td>ọbị nwa 'child'</td>
</tr>
<tr>
<td>nńkịta 'dog'</td>
<td>nńkịta 'small creature'</td>
<td>nńkịta unụ 'your dog'</td>
</tr>
</tbody>
</table>

If these forms are composed of three H-bearing morphemes, the third and final morpheme is evidently weak, hence its H tone is exempt from the OCP. As is well known and ill understood, however, the final downstep of nouns drops phrase-internally:

<table>
<thead>
<tr>
<th>Noun</th>
<th>Tone</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>ọnụ 'mouth'</td>
<td>ūžọ 'path'</td>
<td>ọnụ uzọ 'door(way)'</td>
</tr>
<tr>
<td>ądụ 'leopard'</td>
<td>ąta 'grassland'</td>
<td>ądụ ąta 'savanna leopard'</td>
</tr>
<tr>
<td>ọbị 'dog'</td>
<td>ọbị 'small creature'</td>
<td>ọbị nwa 'child'</td>
</tr>
<tr>
<td>nńkịta 'dog'</td>
<td>nńkịta 'small creature'</td>
<td>nńkịta unụ 'your dog'</td>
</tr>
</tbody>
</table>

Whatever special licensing permits a word-final H to be weak in citation forms such as those in (7), (8) shows that this licensing is not available phrase-internally.

The Igbo corpus, however, shows that a weak H is conserved in certain other contexts, which I have labeled architones. If (6b) is a negative verb plus its pronominal prefix, the corpus shows that in a larger verb phrase, the word-final weak H is equivalent to a weak L (the total downstep effect), and the initial H of the following word has higher pitch (the downstep reset effect).

<table>
<thead>
<tr>
<th>Noun</th>
<th>Tone</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>nwoke ri 'man'</td>
<td>ri a</td>
<td>[nwoke 'man'] [ri a 'ate']</td>
</tr>
</tbody>
</table>

(The tone cliticization in (11) is driven by the elision of the last timing unit of mín.)

13The few exceptions in (i) are most likely exempted by internal structure.

(i) ọghẹ (le) 'opening' (Ọnjicha) ọkọ 'young man' (Abankanleke), cf. ọke 'male'

14One exception may be exempted by internal structure, cf. dî 'master':

(i) ądadi 'elderness' (Ọnjicha) ądadi nwaanyị 'old woman' ądadi nwaanyị
11. 

If the following phrase begins with L, another difference emerges, cf. (12).

12. 

By stipulation in (4), tonal government takes the form of H spreading onto following L in Agbó, and H raising before L in Abánkèleke. But by definition in (2), tonal government entails a strong position, so we might not expect a tonal government effect in either dialect. H spread doesn't occur in relevant Agbó contexts, e.g. (24b), but H raising (notated by underlining) is reported by Meir et al. in corresponding Abánkèleke examples, forcing a derivation like (13) which violates structure preservation.

13. 

Fortunately, an alternative analysis is available; indeed it is required by the grammar. Meir et al. report an example minimally contrasting with (13):

14. 

Within a principle-based framework, (13) and (14) cannot have the same syntax. Minimally, the conditional clause in (13) must include an additional head, plausibly a determiner, for compositional semantics. Independently, from the so-called associative construction, it is clear that the null Comp in Igbo relative clauses is spelled out on the surface with a H tone (see Excursus). It is unnecessary to stipulate this, so long as the null Comp is metrically strong. This gives the conditional the s-structure in (15):

16. In (15), cliticization of the null Comp creates the context for the observed raising. If this goes through, then tonal government in Abankeleke is structure-preserving.

A final question is why downstep reset occurs in Igbo before the negative morpheme ni, which bears H tone, but not for example before the toneless gh of Standard Igbo (to which it is cognate). Ni is either a suffix or a left-branching phrasal head. We might suppose that ni as a phrasal head with inherent H is metrically strong. Then after a downstepped verb it will have the exactly the downstep reset configuration in (9). A related effect is seen in the Excursus, where a lexically unmotivated H tone appears in Igbo relatives as the content of null, strong Comp and Kase nodes.

3. SUMMARY

The above, preliminary analysis of prosodic licensing in Benue-Kwa languages takes off from the concrete and learnable disjunction between local and nonlocal tone effects, to posit quasi-syntactic relationships of constituency and government among tone elements, in the tradition pioneered by Bamba for Mandekan languages. Because government also forms an indispensable part of syntactic licensing, such an analysis offers the hope of explaining a wide range of phenomena which have heretofore inspired only bizarre diacritics of ‘upstep’ juncture. Equally importantly, it brings a rich array of phonological evidence, especially small parametric differences among closely-related languages, to bear on issues of syntactic representation.

In view of these results, Welmers’ tonemarking puzzle (with which the paper began) counts as a monument to the keen linguistic intuition of that eccentric missionary, but also to the complacency of Africanist phonologists and syntacticians who have managed to preserve their respective specializations in pristine, obtuse segregation for too many decades.

15 Akµ is, specifically, inert or non-reproducing wealth, as opposed to ṭuba which includes seed stocks and livestock.
EXCURSUS: PROSODIC MINIMALITY IN IGBO

In Standard Igbo, an otherwise empty functional head is nevertheless strong in order to govern the head of an embedded constituent.1

18a. DP

ányí

∅D

IP

la ahyá

[ányí láára ahyá]

'the friend that left the market'

19a. CP

ánye

∅C

IP

hú Ezé

[ánye húru Ezé]

'Who saw Ezé?'

EXCURSUS II: YORÚBÁ


EXCURSUS III: AGAINST REGISTER TONES

The register tone framework (Snider 1990) has no account for prosodic domains. Contour tones are overgenerated, unless markedness between 'modal' and 'register' tones is invoked to exclude possible but unattested contours. A "left-to-right implementation rule" (like Schachter and Fromkin's numerical algorithm) is also needed. The (non-arboresal) register formalism does not represent cumulation explicitly. The lack of symmetry between upstep and downstep is accidental.

16In Ágbó, the empty head of a relative clause is spelled out with the copula hún.
CORPUS

Speaker
Julius Ogbu
Idumu Ukù, Ágbo
June, 1977

Track no.
1. Njé afya. Ò wí m ogné kírí.
   'I went to market; it took me a brief time'
2. Njé afyá + onöbë tání.
   'I'll go to market after a little while today'
3. Ní m jne afyá + éki ile.
   'Let me go to market tomorrow'
4. Ányú atú nkó, ì ìbe gbë be nkñú.
   'An axe is usually sharp before you use it to cut wood'
5. Ànámí o nó? Ò tó nkó.
   'How is it?' 'It's sharp'
6. Òpyá atú atú, ì ìbe gbë be betú ì ìbe nkñú.
   'A machete is usually sharp before you use it to cut open [a bundle of] yam pegs'
7. Ánámí o dí náhí? Ò nwo akó.
   'How did it manage to escape?' 'It's clever'
   [transcription/translation of tracks 10-12 is missing]
8. Mgbadna enwóké díkó, ì ìbe gbë náhí ohúkpagha.
   'An antelope is usually very clever, before it can escape a hunter'
9. Ánámí o dí náhí? Ò nwo akó.
   'How did it manage to escape?' 'It's clever'
10. Ékú ugbó wí gë enjere + kwa akó úkó.
    'A farm coat sewn with hide itches'
    'What does it do to him?' 'It itches him'
    'Why did you take it off?' 'It itches'
13. Êjé dí aaja anṣu aja ní ò mánní ósú o òbèlèzè
    'An elder dices up meat so that s/he can know the sweet taste of “òbèlèzè”'
14. Ánámí o dí ná kwadèmì ë? Ò já anṣu; ò méyì ofigmò.
    'How did s/he manage to prepare it? S/he diced meat; s/he added palm oil'
15. Ánámí o kwadèmì ë? Ò já anṣu aja.
    'How does s/he prepare it?' 'S/he dices up meat'
    'Small children sing whenever the moon shines'
17. Òkù omúmú nwa énýí ná érè.
    'The birth medicine we received was effective'
18. Kí wé mé è ní ránhi?
    'What did they do that they did not sleep?'
19. Abú we ebú, ètnè + ní we égù.
    'They sang, they didn’t dance'
20. Ogú ómúmú nwa énýí ná érè.
    'The birth medicine we received was effective'
21. Ánámí o rùnní ë? Òrè èrè.
    'How then did it work for you?' 'It was effective'
22. Ánámí o rùnní ë? Òrè èrè.
    'How then did it work for you?' 'It was effective'
23. Òrìrí Níi Ugbó + ápù ò-hù-mma.
    'The Feast of Farm Food turned out well'
24. Òpú kí wé dí nò kú? Ò pù apù.
    'Did it turn out as they said?' 'It turned out [well]'

Tone orthography
[ ', ] = surface tones;
no mark = same as preceding tone;
[ ' ] after [ ' ] = downstep;
[+] = antidownstep
28. Ñké ì + hńù lála + nį? Ō pú ápu.
   ‘Yours which is coming up? ‘It will turn out [well]’
29. Mírńí ezúe ósuó ohú. (possibly: Mírńí + ézúe...)
   ‘Rain fell [in] one area’
30. Nj mírńí ezúe ugbó ĉ rúe mgbé ényasi.
   ‘Rain must fall on the farm by evening’
31. Mírńí + ní o sué ebé ndį ohůwù.
   ‘Rain will fall someplace’
32. Ányu atńu + ní nkó.
   ‘The axe isn’t sharp’
33. Êyíle + ányu thń u le + ní nkó!
   ‘Don’t give me an axe that’s not sharp!’
34. Òpua atńu + ní atńwù.
   ‘The machete isn’t sharp’
35. Ánjile m ĝí òpua atńu le + ní atńwù!
   ‘Don’t have me use a machete that’s not sharp!’
36. Mgbdaná áánwo áko.
   ‘Antelopes aren’t clever’
37. N sěká hů ùtě mgbdaná nwó lę + ní áko.
   ‘I can see the track of an antelope that’s not clever’
38. Èbulúká akọ akọ.
   ‘[The ritual coat of an Òlokún priest] doesn’t itch’
39. N fí yíme ekwá kó lę + ní ukó. (speaker hesitates)
   ‘Let him put on a cloth that doesn’t itch’
40. Ndį kikéní ááá anú nńé òbélézéè.
   ‘People nowadays don’t dice meat for “òbélézéè”’
41. Ánjile onye ghále* ní áá áńu + lę m! (strong effect)
   ‘Don’t let someone who omits dicing meat host me!’
42. Nńmı ndů áábů ebú ãme isi abájí.
   ‘Children don’t sing [on] moonless nights’
43. Ndi ghále* ní áábů ebú ásekà tńe egú.
   ‘Those who omit singing cannot dance’
44. Ògú ááre ere.
   ‘[The] medicine is totally ineffective’
45. Á nńi lę m + ġí ṣoń̤ ẹń̤ + ní ėrè erè.
   ‘I won’t use medicine that is totally ineffective’
46. Òrírí āpú + ní āpúù.
   ‘The feast flopped dismally’ [did not turn out at all]
47. Hńú pú le + ní āpúù joko anwozí.
   ‘What flops is going to have another [chance]’
48. Élé + ógné wé jí gū gí + hńu aka áhńu ké wé jí gū + ahyná ní.
   ‘It is not when they dug yams last year that they’re digging yams this year’
49. Ógné wé jí gū gí + wńu ógné mírńí gí lůwá gú.
   ‘The time they harvest yam is the time when rain has finished tapering off’
50. Ógné wé égí + gú jí wńu ógné 0-wńu le gha ekí + jńëme.
   ‘The time they will harvest yam is any time after tomorrow and thereafter’
51. Èbe o wú uzó chó ewú wńu epeté ēpete.
   ‘Where he stood seeking shade is muddy’
52. Òbë o wú uzó rú élu + ákpági.
   ‘The ladder he stood upright broke’
53. Èbe o wú uzó c’hé nńmu a wńu ahamáhá úwáyá.
   ‘Where he stood waiting for his children is in the middle of the road’
54. Èbe i ewú uzó c’hé wńu èbe uzó nóhíme.
   ‘Where you will stand waiting for them is where the path makes a bend’

111
55. Emu aknu ihian aknu.
'Sickness troubles people'

56. Obaniye esu ihian esu.
'Sweat affects people greatly'

57. Obaniye esu ihian esu.
'Sweat doesn’t affect people at all'

58. Eziza nkú ka alì azǎa. (why nec: Eziza nkú...)
'A broom of mature palm [branches] is best for sweeping the ground'

59. Eziza ọkịtị ǎaka alì azǎa kàri ẹziza nkú.
'A broom of baby palm [branches] doesn’t sweep better than one of mature palm'

60. We àmara nwa èmè nwa.
'They know [how] the child will make itself'

61. We àmara nwa èmè nwa.
'They don’t know [how] the child will make itself'

62. Nwata mảri ihie èmè nwa.
'A child that knows something will mature'

63. Nwata àmà ihiè + à èmè nwa.
'A child that doesn’t know something won’t mature'

64. Onye ehyu ẹkwà ọghụ àmári onu a.
'Someone who shops for hen’s eggs knows their price'

65. Onye eehyü ẹkwà ọghụ àmári onu a.
'Someone who doesn’t... doesn’t...'

66. Ẹru eepù ugobo wnu ekurù.
'The mushroom that appears on the farm is “ekurù”'

67. Ẹru àáfọdú nkú wnu ekurù.
'The mushroom that grows on palm trees is “ekurù”'

68. Ẹru àáfọdú ọfà, ọnòbè ń ényị húe + ń e, ọ réhì.
'The mushroom that grows in the woods, soon after we don’t pick it'

69. Èkurù àáfọdú nkú ọnòbè, ọmènì ényị húe + ń e, ọ réhì mgbè ényàṣị.
'The “ekurù” that will grow on palm trees soon, if we don’t pick it, it rots by evening'

70. Èru eepù ọfà + ọnòbè; ń ényị húe + ń e, ọ réhì.
'A [type of] mushroom will come out in the woods in a little while, if we don’t pick it, it rots by evening'

71. Èru eefie ényị ụgbọ + wnu ekurù.
'The mushroom that eludes us in the farm is “ekurù”'

72. Èru eefie ényị +ọfà ẹk +wnù ugu énị, ndị ényị ọghọsi ń ényị kẹ wẹ áchọ á.
'The mushroom that will elude us in tomorrow’s woods “ugù énị”'

73. Èru eepù ugobo wnu ekurù.
'The wine that women like is “ogọrọ”'

74. Mírìnì ezúe + ime àbàli, Mànyà ààụọ + tanì wnu nkù elù.
'Rain fell during the night. The wine that will be sweet today is “nkù elù”'

75. Ànu me èke esì ro.
'The meat I [usually] share out is horse'

76. Ànu me èke wnu èsì ma ọ wnu éfni, èlè + hńú kà nị.
'The meat I [usually] share is horse or cow, it is not that which is smaller'

77. Ànu me èke + ri ńdụ kìkêní.
'The meat I will share out is alive now'

78. Mànù mé a râ wnu ọzu ní nkù elù, ọlè ògọrọ.
'The wine I usually drink is “ọzu” and “nkù elù”, it is not “ògọrọ”'

79. Mànyà me àrá, è gi rîn + dônlù ò sùù, (syntax unclear)
'The wine I will drink is claimed to be going to be sweet'

80. Ôgwà o zụzu ényị + ní iỳà, èrù ukà a ríkà.
'The meeting that includes us and her/him, it usually comes to a big argument'

81. Ôgwà o o zuzu ényị, yà ebùfùle à.
'The meeting that will include us, let her/him not cancel it'
REFERENCES

___ 1992 Sur la relation entre ton et accent, Université du Québec à Montréal dissertation.