Tone in Saxwe

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English summary

In this study, the Saxwe tone system is described as an interplay of underlying lexical tones, grammatical tones, and structurally-driven boundary tones. These elements undergo changes in the phonology and are interpreted in the phonetic implementation. This study takes a derivational approach to explaining tonal phenomena.

First, the underlying tonal contrast of the Saxwe system is described as a three-way {H, M, L} contrast. This contrast is demonstrated in the course of the analysis of underlying tone patterns of monomorphemic verbs and nouns.

In the context of studying monomorphemic nouns, several asymmetries are observed in the distribution of tone patterns. These asymmetries are likely due to the lexicalization of phonological operations that, in the diachronic history, involved L tone being inserted in the environment of a depressor. This lexicalization was galvanized by language contact between speakers of a two-tone Gbe language with speakers of a three-tone Yoruboid language.

The postlexical rules that help to explain surface forms in Saxwe are the following, listed in the order in which they operate.

$L_{\%}$ association
Nominal floating H deletion
Contour simplification A and B
Grammatical tone docking A and B
Partial L spread
Tonal spread

Structurally-driven boundary tones are generated at two levels of the prosodic hierarchy: at the level of the PW and at the level of the IP. The PW boundaries are assigned during the lexical stage of the derivation, and the IP boundaries are assigned during the postlexical stage. Interestingly, boundary tones do not exist at the level of the PhP in Saxwe.

At the level of the PW, there is a right H_{ω} boundary that is assigned to complex words created through derivation or compounding that have a $]_{PW}]_{PW}$ structure of nested right edge PW boundaries. It is not assigned to words created through suffixation.

The other boundary tones that exist in Saxwe are generated at the level of the IP. The $L_{\%}$ and $H_{\%}$ IP boundaries are assigned with relation to prosodically-defined structures, but the assignment of the $H_{\%}$ IP boundary also takes into account certain syntactic considerations.

The right $L_{\%}$ boundary is the default on an IP. The usefulness of the right $L_{\%}$ IP boundary is that it provides a single mechanism for all of the following observed realizations of a final underlying /M/ in utterance-final contexts: the final downglide on [L], the [ML] surface contour, and the [HL] surface contour. The right $L_{\%}$ IP boundary is associated with finality or completeness and is therefore absent in contexts of incompleteness, such as at the right edge of a declarative clause that has a syntactic gap. Instead, the alternative right $H_{\%}$ IP boundary is generated; it is responsible for the absence of any pitch-lowering phonetic phenomena.

In a chapter focusing on word-level tonal phenomena, the following topics are examined: the left M- floating tone that is present on all nouns that do not have an initial vowel (initial vowels and this floating tone all representing vestiges of a historic class marking system), the affixation of the first and third singular pronominal suffixes to the verb and associated tonal phenomena; the tonal treatment of nouns that have been borrowed into Saxwe from English; tone as it relates to ideophones; and the definite marker [lá] which is an enclitic with unusual tonal behavior.

In a separate chapter focusing on clause-level tonal phenomena, grammatical tone which is unaccompanied by segmental-level information is addressed, including the following: the imperfective construction which involves two morphemes, one of which is a preverbal floating M; unmarked negation which also has two morphemes, one of which is a clause-final L; the negation of future events which involves a floating H marking irrealis modality; marking of the prospective which also includes the floating H marking irrealis; and YNQ formation which involves a clause-final L.

The Two-Feature model of Yip (1980, 1989) and Clements (1981) has explanatory power when applied to the Saxwe tone system. The Two-Feature model provides an explanation for asymmetries in Saxwe tonal phenomena, especially the frequent occurrences where M and L function in an oppositional relationship to H. This asymmetry is captured well by the [+/-upper] distinction.

In a chapter on the phonetic implementation of tone in Saxwe, instrumental data are presented in support of the phonetic representations given in this study. Topics covered include: baseline F_0 traces for all-H, all-M, and all-L utterances; a discussion of iterative automatic and non-automatic downstep of H; evidence that there is no iterative automatic or non-automatic downstep of L; observations regarding the anticipatory raising of H before successive L–H sequences; and the phonetic realization of the most common tone patterns of V.C(C)V nouns. Of particular interest in the study of the implementation of downstep is the fact that speakers have differing strategies for the phonetic realization of the [+/-upper] registers in long utterances of seven or nine TBUs. Some speakers favor a relatively fixed threshold between the [+upper] and [-upper] registers, while others have a very flexible boundary between these registers.