

# STEM-INITIAL ACCENT AND C-EMPHASIS PROSODY IN NORTH-WESTERN BANTU

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- Several NW Bantu languages have been described with steminitial accent.
- E.g. in Eton (Bantu A70, Cameroon), stem-initial accent is manifested phonotactically, phonetically & phonologically, as well as tonologically:
  - 1. phonotactic skewing: half of the consonant phonemes restricted to  $C_1$
  - 2.  $C_1$  consonants are longer than consonants in other positions
  - 3.  $C_1$  not subject to lenition rules that occur elsewhere
  - 4. only accented syllables can host two underlying tones



## Consonant length in the nonsense word *mà-màmà*







- C-lengthening as a significant stress correlate is typologically rare and even rarer as the primary phonetic parameter in the realization of stress
- Remijsen (2014) cites the following languages with lengthening of the consonant that follows the vowel of the stressed syllable as a stress correlate:
  - Iquito (Michael 2011) (primary parameter)
  - Washo (Yu 2008)
  - Welsh (Williams 1985, 1986)
  - Zapotec (Pickett, Villalobos & Marlett 2010)
- May also be common in Australian languages (cf. Butcher 2006)

- Although typically stem-initial, Caccent in Bantoid may be fixed to sites other than the stem-initial position:
  - In Bube (A31), it is the onset
    C of the final syllable, which may be related to penultimate
    V-lengthening in many Bantu languages (mostly E Bantu)





Our research programme for (stem-initial) C-accent:

- provide an instrumental analysis
  - $\circ$  is consonant length the primary/only phonetic correlate?
  - $\circ$  how important is the difference in length between C<sub>1</sub> and other positions?
  - is this difference in C length constant among the languages with stem-initial C-accent?
- establish the boundaries of the phenomenon within Bantu and beyond (hypothesis: it is (much) more recurrent in NSSA)
- look for correlations between (stem-initial) C-accent and: labial-velars, maximality constraints, and morphosyntactic properties that may correlate with the latter (cf Hyman 2004).



We recorded questionnaires for nine languages in Cameroon and Gabon for a total of ca. 30 hours:

- Eton (Bantu A70): 4 men, 5 women, ca. 90 min / questionnaire
- Bafut (Bantoid): 2 men, ca. 70 min / questionnaire
- Bapuku (Bantu A30): 2 men, ca. 50 min / questionnaire
- Basaa (Bantu A40): 2 men, 1 woman, ca. 45 min / questionnaire
- Fang (Bantu A70), different regional varieties: 4 men, 5 women, ca. 50 min / questionnaire
- Kota (Bantu B20): 2 men, ca. 45 min / questionnaire
- Kwasio (Bantu A80): 2 men, ca. 35 min / questionnaire
- Bagyeli (Bantu A80): 1 man, ca. 35 min / questionnaire
- Orungu (Bantu B11): 1 woman, ca. 35 min / questionnaire

#### C-EMPHASIS & STEM-INITIAL ACCENT







Ca. 7 hours have been segmented and annotated in Praat for Eton, 5 h for Fang, 2 h for Basaa.





Some initial findings:

- Stem-initial consonant length in all languages, except Bapuku and Orungu, which have penultimate vowel length and which lack many of the typically NW Bantu morphosyntactic characteristics
- Within A70, relative length of  $C_1$  appears to decline in the extreme south of the domain



## A further hypothesis based on initial findings:

C-accent as the exaggeration of the duration of consonants rather than vowels in a certain position in a word is **in origin** an **utterance-level prosodic / intonational phenomenon** marking a particular **emphasis** on a given element within the utterance



## C-emphasis prosody $\rightarrow$ stem-initial C-accent

- the stem-initial position is expected to be a frequent site for the realization of such emphatic prosody as the primary position associated with expressing lexical meanings, which are likely to be in need of emphasis more frequently than the more functional types of meanings, such as number, agreement, TAM, etc., which tend to be expressed by prefixes or suffixes.
- this frequency correlation has gradually led to a reanalysis (phonologization) of C-lengthening as an inherent property of the stem-initial position
- SIC-accent would enhance any existing tendency for word-internal Clenition, which is a common phenomenon cross-linguistically anyway and may occur for reasons unrelated to the presence of SIC-accent



## C-emphasis prosody $\rightarrow$ stem-initial C-accent

• The origin of SI-accent in an utterance-level prosodic / intonational phenomenon marking a particular emphasis on a given element within the utterance accounts for the ease of its spread in language contact situations (see Matras 2009, 2014... on borrowability)

Functions that serve to negotiate attitudes among the participants in the interaction and which convey evaluations, assessments, the processing of presuppositions, or emotions, are particularly prone to borrowing: This includes information structuring at the level of the discourse and clause, [...], prosody in phonetics and phonology, discourse particles [...] They represent bilingual speakers' need to align the emotional and presupposition-oriented side of negotiating communicative interaction across interaction settings.

(Matras 2014:5)



- In a longer utterance, certain SICs are lengthened more than others:
  - SIC of the word that expresses the new information focus of the utterance
  - SIC of the word that is contrastively focused

Eton (A70)



Langage, Langues et Llacan Cultures d'Afrique Noire

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Okak Fang (A70)





### C-EMPHASIS & STEM-INITIAL ACCENT



Basaa (A40)

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N Adj *bà-bòŋòl bá-bè* G2-worker AG2-ugly



## C-EMPHASIS & STEM-INITIAL ACCENT



Basaa	(A40)
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N1CONbà-bébábáG2-badAG2.CON

N2 *bòŋòl* 

worker







• Occasionally, C-emphasis (new information, contrastive focus) can also occur on morphemes other than stems

Eton (A70)



mì-p3mà. Non, c'est bà-j3mà





• Corrective focus on the prefix V realized with prefix C-emphasis





• New information focus on the final V realized with stem-initial Cemphasis

Eton (A70)







- This kind of prosody can also be found outside of NSSA, but in other languages it appears to have very low frequency and to be restricted to certain types of consonants (only fricatives? only continuants?...), on top of being pragmatically marked.
  - English:
    - Now... 'that [ð:] is interesting!
  - French:
    - *ça me fait 'chier* [ʃː]!
  - Russian:

Mm, 'suka [s:] kakaja! 'Mm, what a bitch!'



- C-emphasis prosody must be widespread in inland NW Bantu (and in the wider area of NSSA, except in its extreme W and in N)
- C-emphasis prosody is more readily observable in Bantoid languages because they have more morphology (especially, prefixes)
- C-emphasis prosody in the form of SI-accent seems to be relevant for the emergence and spread of labial-velar stops in NSSA (including most of NW Bantu)
- More importantly, SI-accent is likely to be largely responsible for the emergence of maximality constraints in many NW Bantu languages (and beyond in NSSA)



- Further durational effects of SI-accent & C-emphasis besides C-lengthening
  - Stem-initial V1 is often longer as well
  - Stem-internal C2 in V\_V contexts is strongly lenited
  - Prefix V lengthens

(compare the typological tendency:  $VC: \rightarrow [V'C:]$ )

-  $C_0$  of a CV- prefix shortens, and in V\_V context, weakens



• In the course of time, these durational effects may lead to...





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