

## The effects of maximality constraints on verb structure

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While Eastern Bantu languages are known for having complex verb forms, Northwestern Bantu (NWB) languages and (non-Bantu) Bantoid/Jarawan Bantu languages of Cameroon and Nigeria have much shorter forms, with so-called maximality constraints limiting the length of the verb stem, which can be expressed as a phonological restriction on the number of syllables. For example, verb stems in Tiene are restricted to 3 syllables in particular sequences (Ellington 1977; Hyman & Inkelas 1997), while Nzadi verb stems are further restricted to 1-2 syllables (Crane et al. 2011), with the vast majority monosyllabic (cf. 1.4% for Chichewa) (Hyman 2017:71). In this workshop we invite contributions on the nature of these maximality constraints and the diverse effects they have on the rest of the grammar.

Hyman (2017) argues that the development of maximality constraints has led to an increased degree of analytic constructions as part of a gradual process of change from synthetic morphosyntax, as visible in e.g. the use of periphrastic constructions (1), change from head-marking to zero-marking of complements (2), adpositional phrases, and serial verb constructions.

(1) Nzadi [nzd], B865 (Crane et al. 2011 via Hyman, 2017:69)

Yà ó líŋ mwàán kè líi.  
2SG PST want child SBJV cry  
'You made the child cry.' (lit. 'You wanted that the child cry.')

(2) Eton [eto], A71 (Van de Velde 2010: 284)

twàmó àkúz ngwân ndógɔ̃  
|tòmá à<sup>H</sup>-kùz-<sup>H</sup> ngòn ndóga|  
Tomo I-PST-buy-NF 9.girl 9.mango  
'Tomo bought mangoes for/from the girl.'

Effects to consider include (i) the increased significance of tonal contrasts in conveying grammatical information after the loss of segmental morphology, (ii) the reduction of previously distinct morphemes and subsequent semantic mergers, and (iii) the development of new extensions.

Next, although maximality constraints have been shown to be active in various NWB/Bantoid languages, it remains a falsifiable assumption that they apply in all and only languages of this region. We therefore raise the question as to whether there are NWB/Bantoid languages that do *not* show maximality constraints (or show them only to a weak degree), and vice versa, whether similar types of constraints are found in Bantu languages outside of Guthrie zones A/B/C. We also welcome contributions uncovering areal patterns, as for example argued for phonological changes to West-Coastal and Central-Western Bantu verb forms as exacerbated by contact with non-Bantu languages (Pacchiarotti & Bostoen 2021).

One possible explanation for the development of maximality constraints is the areal phonological phenomenon of increased prosodic prominence on the start of the verb stem (Lionnet & Hyman 2018; Hyman et al. 2019, i.a.). Concomitant weakening of the end of the verb, resulting in less functional encoding of meaning there, could be linked to the loss of extensions and final vowel loss (Pacchiarotti & Bostoen, 2021; cf. Good 2022). Stem-initial prominence effects have been shown for individual languages (e.g. Teke-Kukuya; Paulian 1975, Tiene; Ellington 1977, and Eton; Van de Velde, 2008, 2010) but their presence and (non)uniformity across the region remains to be demonstrated. We therefore welcome studies

testing for phonetic lengthening of C1/V1, a larger number of phonemes appearing in stem-initial positions, and position-based tonological restrictions.

Finally, while the development and gradual strengthening of maximality constraints on stems provides a clear diachronic scenario of change if we assume that the structure of Eastern Bantu verb forms is archaic within Bantoid, it has also been proposed that synthetic verbs are a more recent development from a previous stage with more analytic patterns (e.g. Güldemann, 2022). If we start from such an idea, we can ask whether maximality constraints should be reconstructed to Proto-Bantoid, and if so, what scenario of change explains their loss. Could the suffix stacking possibilities found in Eastern Bantu be seen as an endpoint in a gradual process of loss of maximality constraints, or is there an alternative scenario of change that explains the large typological differences in verb forms within the Bantu family?

To this end, we invite novel contributions addressing questions such as the following, for individual or multiple languages:

- How do maximality constraints manifest themselves in the verb system?
- Which verbal extensions have been lost/are no longer productive/have changed meaning?
- How are functions which are expressed in other Bantu languages via verbal morphology expressed in languages with maximality constraints?
- To what extent do maximality constraints correlate with stem-initial prominence?
- Are there NWB/Bantoid languages without maximality constraints, or vice versa, Bantu languages from outside of the Northwest which have them? What is the distribution of maximality constraints within Bantu/Bantoid?
- How do maximality constraints develop or become lost over time?

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