A new classification of Forest Bantu languages based on the study of consonant correspondences (with a special focus on the evolution of *k and *g)

Rebecca Grollemund (University of Missouri) and Gérard Philippson (Laboratoire Dynamique du Langage DDL-Lyon)

The present contribution aims at presenting a new classification of the Forest Bantu languages spoken in Cameroon, Equatorial Guinea, Gabon, Congo and Republic Democratic of Congo. Based on the study established by Nurse and Philippson (2003), the group Forest Bantu comprises Guthrie's zones A, B, C, parts of H and part of D10-20-30. Those languages, according to previous classifications based on the study of lexicon belong to three different genetic subgroups (Grollemund et al. 2015): North-Western (A, B10-20-30), Central-Western (C-D10-20-30) and West-Western (remaining B and H) and so "Forest Bantu" is paraphyletic.

Most of the previous classifications established for Bantu languages are generally based on the study of basic lexicon. While this doubtless gives a good approximation of major sub-groupings, it might lead to some errors due to the unacknowledged role of borrowings, particularly prevalent in lexicon. The present contribution will try for the first time to arrive at a classification based on shared innovations in phonology, more specifically in the consonant system. Sound change is a central aspect of language change and the identification of phonological innovations will allow us to refine and assess the genetic groupings identified with the study of basic lexicon.

We have built a database composed of +170 zone A, B, C, D languages. For each language, we have collected data from published sources in order to study the reflexes of the Common Bantu plosives *(N)p, *(N)t, *(N)b, *(N)d, *(N)g in C1 and C2 positions. We have thus been able to study the distribution of consonant reflexes in this particular region and identify the phonological innovations that will be considered for establishing genetic sub-groups.

Our preliminary results allow us to identify some specific innovations for some Forest subgroups. For example, one such innovation which appears rather clearly is the realization \emptyset / k for the C(ommon) B(antu) pair *k / *g; this would seem to affect many zone A languages, but not all - A60 and A90 do not appear at present to be included. Furthermore it extends to a few B20 and a large part of zone C. This contrasts with the mostly West-Western development where CB *k / *g fall together as k (Pacchiarotti and Bostoen 2021), as well as with the typical Savanna development where *k remains stable and *g either remains, lenites to y or disappears.

Finally, in order to propose this new classification based on the study of phonological innovations, we have encoded (binary encoding) all the sound changes (innovations) found in the data collected. We then applied Bayesian phylogenetic methods to build a tree. The results will be discussed and compared with classifications based on the study of lexicon. We will demonstrate that a classification based on phonological innovations (analyzed in combination with a classification based on the study of lexicon) gives us a more complete understanding of the history of the Forest Bantu languages.

Keywords: Bantu languages, classification, Forest Bantu, phonological innovations, phylogenetic methods

References

Grollemund, Rebecca, Simon Branford, Koen Bostoen, Andrew Meade, Chris Venditti & Mark Pagel. 2015. Bantu expansion shows that habitat alters the route and pace of human dispersals. *Proceedings of the National Academy of Sciences (PNAS)* 112.13296-301.

Nurse, Derek & Gérard Philippson. 2003. Towards a historical classification of the Bantu languages. In: *The Bantu Languages*, ed. by D. Nurse & G. Philippson, 164-81. London-New-York: Routledge.

Pacchiarotti, Sara & Koen Bostoen. 2021. Erratic Velars in West-Coastal Bantu: Explaining Irregular Sound Change in Central Africa. *Journal of Historical Linguistics* 11.