Labial-velar stops are areal retentions but genealogical innovations in the Niger-Congo languages

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Using a large lexical database and generalized additive modeling (GAM), we have shown that the areal distribution of labial-velar (LV) stops in Africa is skewed in a way that allows for a very precise historical interpretation. There are three hotbeds of high lexical frequency of LV stops that can be identified as refuge zones. The frequency (or presence) of LV stops in Sub-Saharan languages is determined by their location in or out of the hotbeds, not by their genealogical relations. In other words, LV stops are retentions from an areal point of view, but innovations from a genealogical point of view in the great majority of African languages that have them today.

This talk has two goals. The first is to introduce the method of generalized additive modeling used with data from large linguistic databases. We will illustrate how it can be used for detecting substrate effects in morphosyntactic patterns as well, by showing that verb/noun ratios in Sub-Saharan languages show striking, areally conditioned differences.

The second goal is to show how our method is a useful tool for grammatical reconstruction. We will do this by critically reexamining the reconstruction of LV stops in subfamilies of Niger-Congo and Central Sudanic languages that have been proposed in the literature. Contra Connell (1995), we argue that Proto Lower Cross did not have LV stops. We will do the same for Proto Central Sudanic (contra Boyeldieu 2006).

Keywords: areal linguistics, labial-velar stops, methodology, Sub-Saharan Africa, substrate

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