2. Pre-Bantu substrate in Batwa Bantu languages of the Congo rainforest: A comparative study of nasal-oral stop cluster reduction

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Rainforest Hunter-Gatherer (RHG) communities in Central Africa, also known as *Batwa* or "Pygmies" and commonly seen as the descendants of the region's earliest modern humans, are thought to have abandoned – in times unknown – their own ancestral languages for different Bantu, Central Sudanic or Ubangi languages. As there are no written records of those putative ancestral RHG languages, two main research strategies have been pursued in the search of a potentially shared prehistoric RHG substrate: (i) lexical comparison aimed at identifying traces of ancestral pre-shift vocabulary (Carpaneto and Germi 1992; Bahuchet 1993; Hideaki and Ichikawa 2003; Terashima 2003; Demolin 2021) and (ii) phonological and morphological features distinguishing the varieties spoken by RHG from those spoken by food-producing populations (Hulstaert 1948; Schebesta 1952; Vorbichler 1964, 1967, 1968; Hulstaert 1978; Möhlig 1981; Motingea Mangulu 1994, 2010, 2021). Although it is challenging to recover Central Africa's pre-Bantu linguistic landscape, recent historical-comparative research focusing on languages of Bantu speech communities which may have incorporated ancestral RHG suggests that linguistic diversity among autochthonous RHG before they shifted to Bantu languages might have been high (Pacchiarotti and Bostoen 2021). In this talk, we focus on a specific phonological feature possibly diagnostic of RHG substrate, namely the simplification of NC clusters (where N= nasal and C = oral stop) in favor of the oral stop (e.g. /ŋg/ > /g/). This sound shift, which is quite rare in Bantu, has recently been observed in some newly documented RHG Bantu languages spoken in the southern fringes of the Congo rainforest, more specifically in the Mai-Ndombe province of the Democratic Republic of the Congo (DRC). In languages of the West-Coastal Bantu (WCB) branch spoken in and to the southeast of the Mai-Ndombe, the simplification of clusters of nasal and oral stops is also widespread, but always in favor of the nasal (e.g. /ŋg/ > /ŋ/). In other RHG Bantu languages of the Mai-Ndombe and in geographically more distant RHG communities to the north and west, there is no such simplification.

This phenomenon is of particular interest for at least three reasons. First, unlike the Bantu dissimilatory sound change known as Kwanyama's Rule, whereby a NC cluster is reduced to C in C(onsonant)2 position if the word contains another NC cluster in C1 position (e.g. *ŋgàndú > ŋgàdú), the simplification phenomenon in selected Mai-Ndombe RHG varieties happens independently of the nature of C1. This type of change is very uncommon in Bantu and contrasts with the type of NC cluster simplification found in neighboring WCB languages. Second, the same NC cluster simplification has been reported in other Bantu languages spoken further north in the Congo rainforest by RHG communities (Chabiron et al. 2013). Third, often times /d/ as the simplified outcome of *nd is realized as [ɖ] in selected Mai-Ndombe RHG varieties. These also attest an abundance of retroflex flaps [ɽ] elsewhere uncommon in Bantu. Apparently, RHG communities speaking the Central Sudanic language Efe also show the retroflex realization of [d] and [r] which is a phonetic feature not shared by non-RHG communities speaking Efe and closely related Central Sudanic varieties such as Mamvu and Mangbetu (Vorbichler 1967, 1968). Besides RHG varieties, a couple of apparently non-RHG Bantu varieties in the Mai-Ndombe also attest a phonemic nasal retroflex /ɳ/ (historically originating in C2 *n and *nd), a unique case in Africa to the best of our knowledge (Maselli et al. 2022).

We will provide a systematic account of the distribution of this unconditioned NC cluster reduction in newly and previously documented RHG Bantu languages in order to assess the historical implications of this possible substrate feature. We will also assess to what extent retroflexion should indeed be considered as an additional substrate feature.

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