A Life Cycle of BS

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I will argue that an inheritance-based, and phonology-heavy model of sound change such as the Life Cycle of Phonological Patterns (LCPP) (Bermúdez-Otero & Trousdale 201) is a superior framework for the analysis of Bantu Spirantization (BS) than the previously used traditional, phonology-light Tree Model (Guthrie 1967-1971, Meeussen 1967) and the contact-based Wave Model (Janson 2007). LCPP is able to incorporate data from other Benue-Congo languages, explain BS variations across Bantu, and provides a useful tool to be used in diagnosing the taxonomy of the Bantu subfamilies.

BS is a group of phenomena that involve the affrication and spirantization of the stops of Proto-Bantu (PB) in front of the two highest vowels in PB, (*i and *u), often called the super high or super close vowels. There is a large amount of variation in the reflexes of these changes (Janson 2007), in terms of both the precise reflexes of the rules and the morphologization and lexicalization of the rules. In most Bantu languages the context for the changes became opaque as well, because of a merger of the highest PB vowels (*i and *u) with the next highest pairs (*ɪ and *ʊ), which obscured the triggers for BS.

The phonetic and phonologization stages of the LCPP can be seen in the comparison of the Bantu languages with other Benue-Congo languages, which are sisters to PB. While not having BS per se, many of the non-Bantu Benue Congo languages have phonological operations or typologically marked phonetics that correlate with the environments of BS (Connell 2000, Connell 2007, Hall & Hamann 2006, Hyman 1972). Whereas the traditional and areal approaches are unable to connect these phenomena to BS, LCPP is able to account for these sisters as evidence of the early stages of the life cycle.

The LCPP operations of Stabilization, Rule Generalization, Rule Loss, and Rule Scattering are able to better account for the variations in the BS reflexes found across Bantu. LCPP allows for a phonetic rule to have existed in PB which could have evolved, dispersed, and/or disappeared in its various daughters, allowing the BS rules to be inherited in only some and lost in others, without the need for PB to have split into two subfamilies, BS and BS-free languages. The traditional approach struggles to marry its conception of sound change with the distribution of BS and the lexico-statistical analyses of Bantu subfamilies (Bostoen 2008), and requires a taxonomic split between BS and BS-free languages. While the areal approach does not struggle with the taxonomy of Bantu, it does struggle with the diversity of reflexes, as there is no good explanation for why an areal wave would produce such different reflexes in neighboring languages (Kieffer 2023).

Due to the issues with the phonology-light Tree model, and the popularity of the Wave model, there have been some claims that BS is too complex or contact-based to be of use in mapping out the taxonomy of the daughters of PB (Nurse & Philippson 2003, Hinnebusch et al. 1981). An LCPP model of BS is able to provide viable diagnostics for establishing a more precise tree of the Bantu languages. Innovations in the lexicalization and morphophonology of BS, sound shifts in individual CV pairs, and innovative Rule Generalizations are all potential diagnostics one could use. Variations in the nominal BS morphology (Bostoen 2008) and in the various reflexes in the Kikongo languages (Bostoen & Goes 2019) have both been used to establish taxonomic relationships.

By outlining the possible stages in the LCPP that BS could have had, and the contemporary correlates of those stages, we can establish a more probable and useful model of BS. An LCPP model of BS is able to connect BS with the related operations found in other Niger-Congo languages, explain the variations in BS, and provide a useful tool for taxonomists.