Topic: The pertinacity and opacity of proto-Mayan stress parameters

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This paper will analyze the parameters of stress described in modern Mayan languages and present a timeline for how modifications or changes to said parameters facilitated the emergence a several Mayan stress patterns today.

Word-level prominence can be a stubbornly persistent system. It is due to this pertinacity that a stress system may appear virtually the same, even when the parameters for stress assignment change. Analyzing a stress system, however, can be a complicated task, partly due to the metrical system's interaction with phonology and morphology, which can further complicate how stress may be realized (Lahiri 2013). The interaction with phonology and morphology may also affect speakers, creating instances of ambiguity that leave the metrical system susceptible to reanalysis (Fikkert et al 2006 for English; Molineaux 2017 for Mapudungun; Yates 2018 for Cupan languages), especially in instances of language contact (Lahiri 2013 for English; Berger 2014 for Czech). These features of pertinacity (persistence) and opacity (ambiguity) can also be seen throughout the Mayan language family, where one parameter, syllables containing long vowels (CVV) are heavy and receive stress, is maintained in most of the Mayan languages. However, when a phonological change that merges long and short vowels eliminates phonemic long vowels, the ambiguity that arises from the loss of this parameter facilitates a reanalysis of stress, leading to the emergence of a variety of stress patterns across the language family.

The Mayan language family consists of roughly 30 languages spoken throughout Southern Mexico and Guatemala. Stress patterns in the family are under-studied, but what descriptions do exist show several different stress patterns that do not adhere to genetic relation and can differ dramatically between varieties of the same Mayan language (Ayres 1991 for Nebaj Ixil Mayan; Adell 2019 for Chajul Ixil Mayan). Analyzing the parameters described for Mayan languages, I propose that there are three general types of stress patterns attested in the Mayan language family:

1. "Default-to-opposite" quantity-sensitive stress
2. "Default-to-same" quantity-sensitive stress
3. Quantity-insensitive stress

The existence of all of these patterns stems from the parameter regarding heavy CVV syllables and the phonological rule that eliminated long vowels. "Default-to-opposite" Mayan languages are more widely distributed, which may indicate that proto-Mayan likely possessed a similar rule. "Default-to-same" Mayan languages maintain phonemic long vowels, but also adopted a new parameter for position: stress falls on word-final heavy syllables. This new parameter for position created a conditional merger of long and short vowels, only eliminating non-final long vowels and allowing the core parameter of heavy CVV syllables to persist, despite the parameter being modified. Quantity-insensitive languages underwent an unconditional sound change, eliminating long vowels. Without this parameter, assigning stress would be more ambiguous and would eventually lead to a reanalysis of the parameters and creation of stress systems that no longer accounted for syllable weight.