Title: The Nature of Quantity-sensitivity and Varied Stress Systems in Mayan Languages
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This paper addresses the nature of quantity-sensitivity in Mayan stress systems. In particular, my focus is to present how internal changes within proto-Mayan facilitated the emergence of varied stress systems within contemporary Mayan languages. The impact of internal change on a language's metrical structure is not unheard of, as one can see in Saussure's law regarding modern Lithuanian (Halle 1997) and Dybo's law for Slavic languages (Halle 2001). With regards to the latter case, the application of Dybo's law resulted in a mobile stress system across the Slavic languages. For Mayan, a similar situation to that of Saussure's and Dybo's Law can be seen in the contemporary languages. Kaufman (1990) asserts that proto-Mayan possessed a quantity-sensitive stress pattern, with the desired location being the rightmost long vowel. In addition to this system, proto-Mayan possessed another syllable structure, the Vh nucleus, which later became a long vowel. This change created a discrepancy in the stress hierarchy of proto-Mayan, which manifested itself differently in the modern languages. Kaufman goes on to assert four stress patterns that emerged from this conflict.

Type 1: Quantity-sensitive
Type 2: Final syllable stress
Type 3: Penultimate stress
Type 4: Root stress, phrase final stress

For languages exhibiting type 1 stress, such as Huastec (Edmonson 1988), the pattern is presumed by Kaufman to mirror that of proto-Mayan's. For these languages to have maintained their quantity-sensitivity in wake of the Vh to VV change, they adopted additional changes that mitigated the loss of distinction between syllables. One example of a language with type 2 stress is Uspantek (Bennett and Henderson 2013). This location, however, is a remnant of the original quantity sensitive pattern, as this is the only place where the historical long vowels are maintained, with the historical non-final long vowels being lost. Therefore, it is argued that the shift to the final syllable was a change made to keep much of the original pattern. Type 3 stress comes closest to Saussure's and Dybo's Law, as languages possessing this type developed it through an interaction with pitch. Uspantek, which has type 2 stress, also possesses tone, which, via phonological rule, will shift the stress over to it. Meaning, should the tone fall on the penultimate, the stress will shift to that position. For type 3 languages, like Chajul Ixil (Adell 2019), this phonological rule presumably interacted with pitch and became the default stress pattern. Finally, languages with type 4 stress, such as Itzaj (Hofling 2000), lost the historic vowel length distinction entirely. However, in wake of that loss the stress shifted to the second highest syllable, in this case the leftmost (root) syllable. Evidence for this change can be found in Huastec, which stresses the leftmost syllable if no long vowel is present. Assuming proto-Mayan had a similar stress system, the shift in type 4 languages is sensible, as the loss of the original heaviest syllable would presumably result in that location not factoring into stress assignment, at which point the second location is promoted.

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