A'ingae Syllabic Weight

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A'ingae (Cofán) is an endangered language isolate spoken in Ecuador and Colombia. Previous research does not recognize the relevance of syllabic weight to the language's phonology (Borman, 1962; Fischer and Hengeveld, forthcoming; Repetti-Ludlow et al., forthcoming). I show that diphthongs (the language's only heavy nuclei) and glottal stops (its only codas) both contribute to weight in two different ways, and that weight interacts with morpheme-specific stress patterns.

The stress of most simple verbs is penultimate, with no seeming effect of syllable weight. Consider the stress of (1-6), uniformly penultimate, whether diphthongs be present in penults (3, 6), in ultimas (4-6), or not at all (1-2). The penultimate pattern is confirmed by many inflections, such as the INFINITIVAL =je, which appear to form part of the prosodic unit relevant for stress assignment (1′-6′).

(1)	pá.ⁿʤa hunt	(1′)	pã.ⁿʤá.je hunt=INF	(4)	fɨ́.ⁿdɨi sweep	(4′)	fɨ̃.ⁿdɨ́.je sweep=INF
(2)	a.tá.pa breed	(2′)	a.ta.pá.je breed=INF	(5)	a.tá.põe breed-CAUS	(5′)	a.ta.pó̰e.ɲẽ breed-CAUS=INF
(3)	fɨ́.te help	(3′)	fɨi.té.je help=INF	(6)	fɨ́.tɨ̃a help-CAUS	(6′)	fɨi.tɨ̃á.ɲẽ help-CAUS=INF

A simple penultimate-stress analysis would however be frustrated by a group of suffixes, here exemplified by the IMPERFECTIVE -ʔhe and the VENITIVE -ᵑgi, which trigger stress patterns crucially sensitive to weight. Thus-inflected words surface with penultimate stress if the penult is heavy (7-8), and with antepenultimate stress if the penult is light (9-10).

(7)	fɨ̃.ⁿdɨ́.ʔhe sweep-IMPF	(8)	fɨ̃.ⁿdɨ́̃.ᵑgi sweep-VEN	(9)	pá.ⁿʤa.ʔhe hunt-IMPF	(10)	pá.ⁿʤã.ᵑgi hunt-VEN

Glottal stops attract stress beyond and above what moraic codas would predict. The antipenultimate stress in (11) is unexpected, as the glottalized syllable is too far from the right edge to attract stress, even if heavy. Compare with (12), where the heavy antepenult yields stress to the light penult.

(11)	fíʔ.tʰi.je kill=INF	(12)	fɨi.té.je help=INF

The weight of diphthongs (i) is therefore of a different nature than that of glottal stops (ii). The two kinds of weight map onto a distinction between quantity and syllabic prominence made by Hayes (1995).

The former (i) is handled by moraic theory: with **moraic trochees**, **right-to-left parsing**, and the **end rule right**, (1-3, 1′-6′) are straightforwardly derived. For penultimate stress in heavy-final words (4-6), **mora extrametricality** is invoked, rendering right-peripheral heavy syllables light, but leaving light syllables intact. For the pattern of (8-9), the IMPERFECTIVE ⟨-ʔhe⟩ and VENITIVE ⟨-ᵑgi⟩ are stipulated **lexically extrametrical**. Diphthongal weight could have been previously overlooked due to the particularity of morphological environments where it is manifest as well as diphthongs' sheer rarity.

The latter (ii), conceptualized within Hayes's (1995) notion of prominence—a qualitative dimension of weight, separate from the quantitative distinctions of moraic theory—requires an additional mechanism. Concretely, the stress of (11) is derived by a **glottal prominence** rule which creates a word layer of stress headed by the glottalized syllable before the word is parsed by methods of regular metrical analysis. This analysis is supported by further morphological facts, and in particular by the presence of suffixes such as the PASSIVE -je (segmentally identical to the INFINITIVAL =je), which erase metrical structure, and thus show interactions with the metrical structure created by glottal prominence.

The two dimensions of A'ingae weight can thus be formalized within the constraints of Hayes's (1995) metrical stress theory. Ongoing research contributes to the theoretical study of syllabic weight and adds a new dimension to our understanding of A'ingae morphophonology, exploring further classes of functional morphemes, grouped accordingly to their differential diacritic properties.

References

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