Lexical Accent and the illusion of complexity

Lexical stress/accent (LA) is usually seen as dependent on lexical specification and morphological factors and thus as inherently more complex than phonologically predictable accent (e.g. Hayes 1995; Revithiadou 1999; van der Hulst 2014). Such complexity is often taken to warrant idiosyncratic rules and accounts, undesirable within universalist approaches to language. Considering data from a Uto-Aztecan language Choguita Rarámuri (CR), I argue that the surface complexity of LA systems falls out from well-known crosslinguistic morpho-syntactic configurations, while the accent systems themselves are in fact very simple.

Background. Below are the basic properties of CR stress, largely based on Caballero (2008, 2011), Caballero & Carroll (2015) (C and C&C henceforth). **A.** CR is a LA system; both roots and suffixes (there are no prefixes in CR) can be underlyingly accented or unaccented (±acc). **B**. Stress must be present in the first three syllables in the word: this 3-syl. stress window is formalized in (1) as a ternary constituent comprised of a disyllabic foot and an adjunct syllable:

(1) PWord[{σ (σ σ)}… (): foot boundaries, {}: stress window boundaries, [: PWord boundary

C. Underlying accent in roots can fall on any syllable. **D.** -Acc suffixes do not assign stress and, importantly, never carry stress themselves, i.e. they are *unstressable*. **E.** All +acc suffixes produce stress on the 3rd syllable if there is one (2a-b), otherwise on the 2nd syllable (2c). Stress assigned by a +acc suffix can be on the suffix itself (2a,c) or on the root (2b), the only requirement being that it falls on the 3rd syllable if there is one (C 2008: 176):

(2) a.	**Root^{-acc}-Suffix^{+acc}**	b.	**Root^{-acc}-Suffix^{+acc}**	c.	**Root^{-acc}-Suffix^{+acc}**
	t͡ʃapi-ˈ**sa**		raɔiˈ**t͡ʃa**-sa		ru-ˈ**sa**
	grab-COND		speak-COND		say-COND
	‘If s/he grabs.’		‘If s/he speaks.’		‘If s/he says.’

I analyze the +acc in suffixes as a floating accent feature, i.e. it is not associated with any unit of the segmental structure but specified to dock onto the rightmost syllable in the stress window (1). **F.** If no LA is assigned in the stress window, a default stress falls on the 2nd syllable. In addition to **A-F**, C and C&C argue that LA in CR involves idiosyncratic morphological factors:

(3) a. Root accents win over suffix accents;
b. Only the suffix closest to the root can assign accent;
c. Special accent assignment rules are required in some morphological environments.

(Re)analysis. I argue that none of the language-specific morphology-dependent properties of LA in CR (3) hold true. Instead, only (4) is required in addition to the basic properties **A-F**:

(4) a. In cases of accent competition, the leftmost accent wins, the losing accent deletes.
b. Any +acc suffix within a word can assign accent, not just the one closest to the root.

I. Accent competition, (3a) vs. (4a). Consider (5a-b) where both roots and suffixes are +acc:

(5) a.	**Root^{+acc}-Suffix^{+acc}**	b.	**Root^{+acc}-Suffix^{+acc}**
	ˈ**su**-sa		ˈ**hu**misi-ma
	sew-COND		take.off-FUT.SG
	‘If s/he sews.’		‘S/he will take off.’ (Caballero 2008: 753)

C and C&C analyze examples like (5a-b) as an instance of Root-Controlled Accent (Alderete 2001) motivating the rule in (3a). However, CR does not have prefixes, thus, patterns in (5) can be restated as a simple resolution: in an accent competition, the leftmost accent wins (4a).

II. Accent domain (3b) vs. (4b). According to C and C&C, the domain which can influence accent assignment in CR is defined by a language-specific rule (3b), illustrated by (6):

(6) a.	**Root^{-acc}-Suffix^{+acc}-Suffix^{-acc}**	b.	**Root^{-acc}-Suffix^{-acc}-Suffix^{+acc}**
	suku-ˈ**na**le-ki		suˈ**ku**-si-ma
	scratch-DESID-PST.1		scratch-MOT-FUT.SG
	‘I wanted to scratch.’		‘She will go along scratching.’ (C&C: 464)

C and C&C argue that if a +acc suffix immediately follows the root (6a), the 3rd-syl. stress surfaces, while in words where a -acc suffix is the closest to the root, the 2nd-syl. default

surfaces, even if a +acc suffix *is* present in the word but is further away from the root (6b). However, I argue that forms in (6) are inadequate to test (3b). In (6b) the failure of the +acc suffix to assign the 3rd-syl. stress is due to the fact that the suffix preceding it is -acc, i.e. *unstressable* (cf. **D**). Thus, we expect forms such as (6b) to bear stress on the 2nd syl. by default (cf. **F**). (3b) and (4b), however, make different predictions for forms with trisyllabic roots:

(7) √ σˈ**σ** σ - suffix^{-acc} - suffix^{+acc} **Stress in multiply affixed words predicted by (3b)**
(8) √ σ σˈ**σ** - suffix^{-acc} - suffix^{+acc} **Stress in multiply affixed words predicted by (4b)**

To evaluate (7)-(8), consider (9) with the trisyllabic -acc root *raʔit͡ʃa* 'speak':

(9) **Root^{-acc}-Suffix^{-acc}-Suffix^{+acc}**
raʔiˈ**t͡ʃa**-ri-ma
speak-CAUS-FUT.SG
'She'll make him speak.' (Caballero 2008: 242)

+acc suffix *-ma* in (9) assigns the 3rd syllable stress (cf. **E,** (2)) across the -acc suffix *-ri* as predicted by (8): i.e. the accent domain does not require a CR-specific rule contra (3b), (7).

III. Special accent rules are not warranted (contra (3c)). Finally, C and C&C argue that a number of special accent rules are required in specific morphological environments. I consider three of them in detail: Noun Incorporation, Denominal Verbs, and Imperatives. I argue that no special rules are warranted, and all stress patterns can be accounted for with the basic rules **A-F** +(4). For the sake of space, I consider Imperatives (Imp) as an illustration here. C (2008: 118) posits a construction-specific rule in (10), illustrated by the Imp. form of -acc verb in (11).

(10) "Imperative stress shift": stress is assigned to the final syllable in -acc V roots

(11) raʔiˈ**t͡ʃa** 'speak!'

However, another construction-specific rule is required to account for +acc roots as they do not fall under (10), but retain their LA, cf.: ˈ*eka* 'close it!'. To account for all stress patterns in Imp uniformly and without construction-specific rules, I propose that one of the allomorphs of the Imp morpheme in CR is a suffix in the head of CP whose sole phonological content is +acc:

(12) [CP$_{Imp}$ [TP [VP V]] -Ø$_{Imp}$$^{+acc}$] *CR is head-final; only the relevant part of the structure is given*

As a +acc suffix, Imp provides a floating accent feature realized at the right edge of the stress window (cf. **E**). Imperatives cross-linguistically involve a segmentally null Imp suffix in the CP (e.g. Miyoshi 2002). The only CR-specific property of this suffix is that it is +acc. Under this analysis, stress behaves in Imp with both +acc and -acc roots in the exact way predicted by **A-F** + (4). When a -acc root merges with the Imp *-Ø$^{+acc}$* in CP, only the *-Ø$^{+acc}$* Imp assigns an accent, and thus stress falls at the right edge of the stress window (**E**),(2). However, when a +acc verb merges with Imp in CP, a competition arises: Imp produces an accent at the rightmost syllable in the stress window, but if the root accent is to the *left* of it, the root accent will win by (4a) (cf. (5)). Consider the Imp form of the verb ˈ*eka* again (13a). (13b) schematizes the accent competition between the LA on the 1st syl. of the root and the accent assigned by the +acc suffix at the rightmost syllable of the stress window; accents are marked with 'x'.

(13) a. **Root^{+acc}-Suffix^{+acc}** b. x **by (E), (4a)**
ˈ**e**ka-Ø$_{Imp}$$^{+acc}$ x x x
'close it!' eka-Ø$_{Imp}$$^{+acc}$ → eka (verbform from C 2008: 176)

Summarizing, I propose a novel analysis of LA in Choguita Rarámuri and argue that the seeming complexity of LA systems can be derived from cross-linguistically robust morpho-syntactic configurations, while the accent assigning systems themselves only require simple, predominantly phonology-driven rules, which crucially are active cross-linguistically as well.

Selected References. Caballero, G. (2008). *Choguita Rarámuri (Tarahumara) phonology and morphology* (Doctoral dissertation). UC, Berkeley. Caballero, G. (2011). Morphologically conditioned stress assignment in Choguita Rarámuri. *Linguistics*, *49*(4), 749-790. Caballero, G., & Carroll, L. (2015). Tone and stress in Choguita Rarámuri (Tarahumara) word prosody. *IJAL*, *81*(4), 457-493.