

Foot edges, constituents and exhaustive parsing in morpho-phonological alternations

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Panoan languages (Peru, Bolivia, Brazil) boast a number of phonological and morpho-phonological alternations initially described as syllable-based (Loos 1999). These alternations may or may not pattern with stress, but recent proposals have shown that they are metrically conditioned (Elías Ulloa 2006, Parker 1994, 1998, González 2003). This paper discusses cases of morpho-phonological alternations where foot edges, foot constituents (foot heads and foot non heads), and exhaustive foot parsing are relevant to account for the distribution of alternating allomorphs.

A. Foot edges. In several cases, specific morphemes are aligned to specific foot edges. Consider for example the Yaminahua suffix /-pake/ ‘down, in series’, which reportedly reduces to [-pa] when the first syllable of the suffix is even numbered in the word (Faust & Loos 2002:132) (1). Metrical structure accounts for the distribution of this morpheme; /-pake/ is aligned to the right edge of a foot. [-pa] is selected when the suffix is in danger of being split between two feet, even if an unparsed syllable results; otherwise, [-pake] surfaces (González 2005).

In other cases, the requirement for a morpheme to be aligned with a specific edge of a foot results in a concomitant phonological alternation. For example, the negation morpheme [-ma] in Amahuaca triggers lengthening of the preceding vowel (Russell 1975). This causes the previous syllable to be parsed as a foot, and permits [-ma] to be aligned to the left edge of a foot.

B. Foot constituents. Morpho-phonological alternations might result in the realization of prominent vowels in prominent foot positions (foot heads), and non-prominent vowels in non-prominent positions (foot non-heads). One example where both tendencies apply is found in Yaminahua, where the morpheme ‘on arriving’ is realized as [-toʃi] when preceded by even-numbered syllables, and as [-tiʃo] when preceded by odd-numbered syllables (Faust & Loos 2002:134) (2). In foot terms, this alternation involves the alignment of vocalic sonority with foot prominence. The relatively sonorous vowel /o/ is aligned with a strong footed syllable, while the relatively non-sonorous /i/ is aligned with the weak syllable (González 2005).

C. Exhaustive foot parsing. This paper will also discuss cases where allomorphs have longer forms after even-numbered syllables and shorter forms after odd-numbered syllables. In metrical terms, the shorter allomorph merges with the previous foot while the longer one encompasses its own disyllabic foot. This type of alternation improves rhythmic structure in the word by means of parsing syllables into binary feet. Examples include Amahuaca {-pai ~ -pa} ‘right now’ (Russell 1975), Shipibo {-kiin ~ -kin} ‘to help’ (Faust 1973), Sharanawa {-paku ~ -pa} ‘all’ (Loos 1999), and Shanenawa {-šina ~ -şian} ‘recent past’ and {-şuna ~ -şun} ‘benefactive’ (Cândido 2004).

The examination of metrically-sensitive alternations in Panoan shows that various aspects of foot structure (including foot edges, foot constituents, and exhaustive foot parsing) are relevant for morpho-phonological alternations, suggesting a preliminary typology to account for these cases.

DATA

(1) Yaminahua /-pake/ ‘going down’ (from Eakin 1991: 140, Faust & Loos 2002:133)

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|----|----------------------------|-------------------------------------|---------------------|
| a. | /ka-pake-ni/ | [(ka.pa.) ni] | ‘Went down’ |
| | go-down-rem. past | | |
| b. | /ni-pake-naka/ | [(ni.pa.) (na.ka)] | ‘Will live forever’ |
| | live-in series-fut.progr. | | |
| c. | /kene-pake-ni/ | [(ke.ne.) (pa.ke.) ni] | ‘Wrote in order’ |
| | write-in order-rem. past | | |
| d. | /tsao-pake-kafa-ita/ | [(tsa.o.) (pa.ke.) (ka.fa.) (i.ta)] | ‘(I) sat down’ |
| | sit-down-lateral-yesterday | | |

(2) Yaminahua

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|----|-------------------------|----------------------------|---------------------|
| a. | /fitʃi-toʃi-a-fo/ | [('fi.tʃi).(to.ʃi.)(a.fo)] | ‘Found on arriving’ |
| | find-arrive-past-plural | | |
| b. | /fa-toʃi-ita/ | [('fa.ti.)(ʃo.i).ta] | ‘Said on arriving’ |
| | say-arrive-yesterday | | |

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