

Sahaptin: Between stress and tone

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Hyman 2009 notes that the term “pitch-accent...is frequently adopted to refer to a defective tone system whose tone is obligatory, culminative, privative, metrical, and/or restricted in distribution”, also suggesting that “we would do well to avoid using the term pitch accent as a catch-all in favor of direct reference to the properties of...a diverse collection of intermediate word-prosodic systems”. The Yakima dialect of Sahaptin (ykm) (YS) has been described as a pitch accent language (Hargus and Beavert 2005, Hargus and Beavert 2014). However, a closer look at the properties of YS prosody indicates that Hyman is right, that YS does indeed have properties of both stress and tone languages.

Background on YS lexical prosody. The primary phonetic correlates of YS accent are higher pitch and greater energy (Hargus and Beavert 2005, Jacobs 1931). By the definition of tone language (Hyman 2006) as “one in which an indication of pitch enters into the lexical realisation of at least some morphemes,” the following data suggest that YS might be a privative (H vs. 0) tone language: [kú] ‘do, make’ vs. [ku] ‘and’; [náj] ‘carry inside’ vs. [naf] 1SG; [táftaf] ‘merganser’ vs. [taf] 1PL.EXCL; [újt] ‘first’ vs. [u:] ‘or’. However, [ku] ‘and’, [u:] ‘or’, [naf] 1SG, and [taf] 1PL.EXCL are function morphemes, in contrast to the accented content morphemes above. Thus YS arguably displays one of the defining characteristics of a stress language (Hyman 2006): “Obligatoriness (every lexical word has at least one syllable marked for the highest degree of metrical prominence (primary stress))”. In YS every lexical word must have an accent. (Obligatoriness also holds of roots.) YS also displays Hyman’s second property of a stress language, “Culminativity (every lexical word has at most one syllable marked for the highest degree of metrical prominence)”. In YS, one and only one syllable is the most prominent. Although roots must have an accent, its location is unpredictable within roots ([alá] ‘claw, finger, toe’ vs. [ála] ‘paternal grandfather’). Affixes are either accented or not (-[mí] GEN vs. -[ki] INST; [pa]- 3PL.NOM vs. [pá]- INV; [pápa]- RECP vs. [piná]- REFL.SG). As evidence of Culminativity in YS, accent shifts from root to (outermost) affix obligatorily (Hargus and Beavert 2002), except for a small set of “strong roots” (Hargus and Beavert 2006) which fail to shift accent to prefixes.

Interaction of lexical prosody with intonation. Is YS simply a stress system with a phonetic correlate of stress as pitch (like Turkish, Levi 2005)? One impediment to this view, in favor of the pitch accent analysis, is that word accent interacts with intonation. Declarative sentences are marked by a sentence-final boundary tone L, but this L does not occur when the sentence-final word ends in an accented syllable like [tkwalá] ‘freshwater fish’ (Hargus and Beavert 2014). Also, there are no L intonational pitch accents in YS: intonational pitch accents are extra-high (for focus of emphasis), extra-high optionally on rightmost word accent (in yes/no questions) or downstepped high (optionally deaccented monosyllables) (Hargus and Beavert 2009). Hayes 1995 has suggested this as a characteristic of pitch accent languages: they ‘must satisfy the criterion of having invariant tonal contours on accented syllables, since tone is a lexical property’.

Secondary stress. On the other hand, in texts we have observed a prosodic phenomenon which can only be described as secondary stress. Jacobs 1931:117 wrote that in the northwest Sahaptin dialects (which include YS) ‘ordinary words have only one syllable accented and no

secondary stress...whereas in the Umatilla reservation dialects there may be two, three or four accented syllables to a word'. In our work with texts in YS we have observed a secondary stress in certain reduplicated forms (verbal iteratives); e.g. [pánakwɨfawàjkwɨfawàjkfana] 'he kept rowing them across' (pá- INVERSE, nák- 'with', wɨshá- 'row, -wájk 'cross' (a bound root), -fa IMPF, -na PST). (Recall that all roots obey Obligatoriness, and are underlyingly accented.) The secondary stresses observed on the root(s) is not a pitch peak; its phonetic correlate appears to be extra energy.

Implications. When we take an in-depth look at a "pitch accent" language like Sahaptin, we see that it displays properties of both stress (Culminativity, Obligatoriness, and if we are right in our interpretation of texts, secondary stress) and tone languages (lexical accent blocks with intonational L). We suggest that recent prosodic typologies which abandon the notion of pitch accent in favor of a decompositional approach to prosody are on the right track.

References

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