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Diacritic weight scales: a novel approach to lexical accent systems

In this paper, I provide a novel theoretical approach to lexical accent based on the Primary Accent First (PAF) theory (van der Hulst 2010, Goedemans and van der Hulst 2014) and the *diacritic weight scale* introduced below. The PAF theory is a non-metrical parametric approach which separates the representation of word accent (primary stress) and rhythm and does not use feet. While the PAF theory correctly accounts for stress location in a wide number of languages, including the weight-sensitive ones, it encounters difficulties in lexical accent systems. Building on the notion of "diacritic weight scale", I extend the PAF theory in order to let it account for word accent in languages of this type and illustrate how accent is assigned in the case of Central and Southern Selkup (Uralic).

In the Napas dialect of Selkup (Samoyedic, Uralic), for certain accented morphemes (1a), stress falls on the leftmost one; if both morphemes are unaccented, stress falls on the leftmost morpheme in the word (1b). Both patterns can be straightforwardly captured by a PAF grammar, assuming that lexical accents are projected as gridmarks just like syllable weight.

(1)	a. ˈʔapt-e	smell	b. ˈam-a	mother
	ˈkomd-e	money	ˈloɣ-a	fox

However, in certain cases, as in (2), stress does not fall on the leftmost morpheme.

(2)	taˈp-ol-gu	kick (*of an animal*)-SEMEL-INF
	koˈb-al-gu	scour-SEMEL-INF

Therefore, the PAF theory fails to capture this pattern. This calls for a different approach to lexical accent.

Recall now that "syllable weight" is the ability of *syllables* to attract stress which is based on their phonological properties. It is then reasonable to view the ability of *morphemes* to attract stress also as a manifestation of weight which has been called "diacritic weight" (van der Hulst 1999:19), with this difference that it lacks phonological sources (e.g. Rhyme structure, sonority).

Diacritic weight should be preferred over lexical accent because accent is a categorical variable, while weight is an ordinal one: this property of diacritic weight allows us to order morphemes in a language-specific *diacritic weight scale*, by analogy with phonological weight scales (see Gordon 2006: 27-28).

Thus, I will show that Central and Southern dialects of Selkup have the diacritic weight scale (3) with the superheavy morphemes being stressed in any word containing them:

(3) superheavy > heavy > light

We can now formulate an *accent assignment mechanism* for Central and Southern Selkup which consists of the scale in (3) and of the set of PAF parameter settings (4):

(4) {Domain (Unbounded), Weight (Yes), Select (Left), Default (Left), Extrametricality (No)}

In addition, I assume that only the heaviest morphemes in a word (according to the language-specific scale) project their weight in derivation.

Sample derivations are provided below, drawing on data from Normanskaya (2011). Consider the form [aˈvʲeʃpugu] ("burn.down-INF") involving the diacritic weights in (5). The derivation for the UR /avʲ-eʃ-pu-gu/ runs as in (6), resulting in an initial stress:

(5) /av/: light; /-eʃ/: heavy; /-pu/: light; /-gu/: heavy

(6)
```
      *                 Select (Left)
      *    *            Project weight
 /avʲ-eʃ-pu-gu/
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The stress on /-ol/ in [taˈp-ol-gu] ("kick (*of an animal*)-SEMEL-INF"), which contains the superheavy semelfactive suffix /-ol/, preceded by a heavy root and followed by a heavy suffix /-gu/, is derived as in (7).

(7)
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      *              Select (L)
      *              Project weight
 /tapolgu/
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Summarizing, while the PAF theory alone cannot account for stress location in lexical accent systems, it can do so if it is enriched with the diacritic weight scale. It was also shown (Vaxman 2014) that the PAF theory can account for stress systems sensitive to both phonological and diacritic weight (Mari, Uzbek) if it is enriched with a "hybrid weight scale", along which the diacritic and phonological weight are ordered.

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