Hybrid weight scales in the Extended PAF theory

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Introduction. In this paper, I present the Extended PAF theory, a novel approach to lexical accent, which I apply here to the problem of morpheme-triggered exceptionality in Eastern Literary Mari. I adopt and extend the Primary Accent First (PAF) theory (Hulst 1996), a non-metrical parametric theory that represents word accent and rhythm separately and does not use feet. This theory accounts for the accent location in a large range of languages and (unlike metrical theory) does not overgenerate. However, the PAF theory cannot capture lexical accent systems and systems that combine syllable weight and lexical accent (the "hybrid" accent systems).

The problem. In Eastern Literary Mari (ELM), accent falls on the last heavy syllable, otherwise, on the initial syllable. Syllables with full vowels are heavy, while syllables with /ə/ and the final open syllables containing a mid vowel are light. However, there are some systematic exceptions to the stress rule. For example, the Comitative suffix /-ge/ always surfaces stressed word-finally (see Riese et al. 2012: 97) while the Comparative /-la/ always surfaces unstressed. Traditionally, one would say that /-ge/ is lexically accented and /-la/ is lexically unaccented.

(1) a. jotʃa child   jotʃa-ˈge child-COMIT   b. tulˈʃol coal   tulˈʃol-la coal-COMPAR

Another example of exceptional morphemes comes from the Napas dialect of Central Selkup (Samoyedic). In this lexical accent system, accent falls on the leftmost accented morpheme (if any). However, in words with the suffix /-ol/, as in (2), /-ol/ receives the word accent while the leftmost lexically accented morpheme (here, the first one) surfaces unaccented.

(2)   taˈp-ol-gu   kick (*about an animal*)-SEMEL-INF

        koˈb-al-gu   scour-SEMEL-INF

The goal of this paper is then to integrate the accent rule with systematic exceptionality into a single theory that would account for accent assignment in "hybrid" accent systems.

The account. Cross-linguistically, phonological weight and lexical accent both attract word accent, which indicates that lexical accent is a kind of morphemic weight (with this difference that it lacks phonological motivation: *e.g.*, Rhyme structure, sonority). Following Hulst (1999: 19), we will call this entity "diacritic weight". For example, in ELM, the suffix /-ge/ is diacritically heavy, while the suffix /-la/ is diacritically light.

In order to integrate the phonological and diacritic weight within the same scale, I introduce the notion of a "hybrid weight scale", *i.e.* a language-specific scale which orders the weights of both syllables and morphemes.

I submit that the *hybrid scale* of ELM is partially ordered and contains two different degrees of weight, as in (3):

(3) *The hybrid weight scale*: $\{h_d , h_p \} > \{l_p, l_d\}$
(where "h_d": diacritically heavy, "h_p": phonologically heavy; likewise for light)

The scale (3) may be translated into the *weight grid* (4), in the spirit of the sonority grid proposals (Prince 1983, Hulst 1984: 67-68, Parker 1989: 9-12).

(4) *The Weight Grid*:

```
                       *      *
                       *      *      *      *
                       h_d    h_p    l_p    l_d
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It is proposed that the accentual grammar of ELM contains the set of settings of the PAF parameters (5) which assigns accent with reference to the weight grid (4), as illustrated in (6).

(5) *The parameter set*: { Domain (Unbounded), Select (Right), Default (Left), EM (No) }

Sample derivations

(6)
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Select (R)                    *              *              *        Default (L)    *
Project Weight [ ( *   *   * )]    [(*      * )]    [( *    *    )]                 [(       )]
                   *   *   *         *      *         *    *
Weight Grid        *   *   *         *   *  *         *    *    *                    *   *   *
                   h_p h_p h_d       h_p l_d h_d      h_p  h_d  l_d                  l_p l_p l_d
                   /pørt-em-ge/      /pørt-la-na/     /pørt-na-la/                   /pələʃ-la/
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Comparison to other approaches. Traditional approaches to morpheme-driven systematic exceptionality in lexical accent systems, such as Head Dominance (Revithiadou 1999) and extrametricality, fail here. Thus, while extrametricality would account for the lack of stress on the final /-la/, it incorrectly predicts that *all* final syllables are unstressed and does not explain why /-la/ is unstressed word-internally. The Head Dominance thesis that morphological headedness and lexical accent are in one-to-one correspondence, is also falsified: in ELM, there are two homonymous suffixes /-ge/, a lexically unaccented derivational suffix and a lexically accented inflectional suffix.

The conclusion. The Extended PAF theory offers a general, non-*ad-hoc* approach to lexical accent. Thus, in the case of ELM, the accentual grammar generates all and only the well-formed accent patterns and, therefore, attains the level of descriptive adequacy. It also makes correct predictions for some lexical accent systems (Central Selkup) and other hybrid systems (Uzbek, Turkish).

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