Accent Strength in Lithuanian Prosody

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Introduction. In this work, I take a look at the distribution of surface accents in Lithuanian nominal paradigms. I claim that the most viable analytical option for capturing the observed patterns is by introducing a system with two accent strength levels. While Blevins (1993) has an elegant minimal analysis of the Basic Accentuation Principle (BAP) in Lithuanian (with the only accent type active in the grammar being a simple H-tone linked to a mora), her account of the De Saussurian accent shift does not correctly derive the data found in the modern language and needs to be revised. If one allows for underlying accents to be strong and weak (with this distinction obliterated on the surface), the BAP and the De Saussurian shift can both be captured in a rather straightforward manner, using a series of constraints which are all well established in phonological theory.

Background. Lithuanian is a language with well-preserved Indo-European accentuation properties. It displays the well-known IE Basic Accentuation Principle, also found in various Slavic languages, Vedic Sanskrit and others (cf. Halle & Vergnaud 1987). If strong morphemes are assumed to have an underlying accent and weak morphemes are believed to be completely accent-free (Blevins 1993, Halle & Vergnaud 1987), the following definition may be used to describe the BAP:

(1)   a.   In a complex word (Stem+Affix) with two underlying accents, the stem accent surfaces faithfully and the affixal accent is dropped;

        b.   Otherwise, if only one of the morphemes (stem or affix) has a lexical accent, this accent surfaces faithfully;

        c.   Finally, if there are no underlying accents, the word is stressed as close to its left edge as possible (default accent).

In addition to BAP, Lithuanian has De Saussure's Law (DS), which can be synchronically described as an accent moving to a short inflectional affix from a stem-final mora:

(2)   a.   UR ińd + áms → SR ińdams   [stem wins over affix (BAP)]

        b.   UR ińd + aa → SR ińdaa   [single accent surfaces faithfully (BAP)]

        c.   UR vaik + áms → SR vaikáms   [single accent surfaces faithfully (BAP)]

        d.   **UR ińd + é → SR indé**   [affix accent wins <u>despite</u> BAP]

        e.   **UR ińd + u → SR indú**   [single accent moves to short affix]

Blevins (1993) is the most recent analysis of Lithuanian accent which attempts to tackle the phenomenon in question. It does not distinguish between different accent levels and has all-or-nothing accent representations. The analysis must therefore rely on extraprosodicity, and also make additional stipulations regarding certain weak stems. Additionally, the analysis overgenerates instances of affixal stress because it fails to recognize that the affixes in the DS set can be both weak and strong in the modern language, just like any other morpheme. Thus, for Blevins, there is no difference between the affixes in (2-d) and (2-e) (both are accented in her analysis), which produces incorrect outputs, such as **kelmú* instead of *kélmu* when combined with the weak stem *kelm-*. The DS rule itself in the analysis is also too strong, because it will delete any accent before another accent located on the following mora, thus incorrectly generating affixal stress for the form in (2-a): **indáms.*

Proposal. There are certainly ways to improve the system proposed by Blevins. However, in this case, one must continue using extraprosodicity (even more extensively), as well as additional language-specific constraints, such as a constraint banning particular word-final tone contours (cf. Kiparsky 2003 on Greek). Instead of pursuing this option, I would like to suggest that underlying accents may vary in strength in the lexicon. Interestingly enough, both weak and strong accents have one single surface correlate (in Lithuanian), making this distinction relevant only in phonology but not in phonetics. In order to restrict the system's generative power, I use only two degrees of strength for Lithuanian (instead of numeric weight values): a regular H tone and a strong H^h tone with an h-register. Morphemes in Lithuanian may thus be strongly accented (H^h), weakly accented (H), or completely accent-free (Ø). Given this array of URs, both the BAP and the DS shift can be straightforwardly derived using well-established constraints: (a) faithfulness constraints protecting underlying accents; (b) a positional faithfulness constraint – R – driving the accent to the right edge of the phonological word; (c) the constraint *Clash penalizing morpheme combinations with two underlying accents on adjacent moras.

The BAP is derived according to the following basic principles:

(3)   a.   A strong accent always wins over a weak accent
            (e.g. surface accent on strong affixes following weak stems);
    b.   If the former rule does not apply, stem accent overrides affix accent.

Since nominal roots are assumed to always have at least a weak accent, no epenthetic accents are ever needed. The DS shift is explained as a cumulative effect in Lithuanian grammar. Even though preference is normally given to stems over affixes (in case the two accents are equal), an affix may surface with the main word accent in case the following two conditions are fulfilled:

(4)   a.   The affixal accent is aligned with the right edge of the word;
    b.   The two underlying accents are adjacent, thus violating *Clash.

Should the stem accent surface faithfully, i.e. according to the BAP, both R and *Clash are violated simultaneously (*Clash reacts to adjacent accents in the input, despite one of them always being silent on the surface). If this simultaneous violation is ranked higher than a violation of FaithStem (unlike the individual violations of R and *Clash), the affix's accent will surface. This mechanism can be derived using local constraint conjunction (Aissen 2003) or, alternatively, Harmonic Grammar (Murphy 2017).

An interesting issue is the fact the all stems in Lithuanian seem to need an underlying accent, strong or weak. While affixes display all the three accentuation types described above (strong, weak and zero), the absence of accent-free (nominal) roots seems to be a systematic gap in the system. This may have to do with the special, privileged, status of roots in Lithuanian (and also many other languages).

Conclusions. Even though the distinction is not visible on the surface, there are reasons to believe that Lithuanian morphemes have two types of underlying accents. Strong accents are always given precedence, followed by morphological stems (cf. Revithiadou 1999). This derives the Basic Accentuation Principle. The specifically Lithuanian accent shift from stems to weakly accented short affixes can be derived as a cumulative effect where two lower-ranked principles 'gang up' to override a higher-ranked one.