

Explaining Nonfinality: Evidence from Finnish

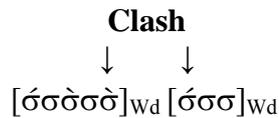
The notion that stress serves a demarcative function by signalling edges of morphological constituents is due originally to Trubetzkoy (1939) and was taken up further in Hyman (1977). From a functional standpoint, stress located at morpheme or word edges helps the listener correctly identify such boundaries. Cross-linguistically, this is borne out by the large number of languages displaying either initial or final primary stress. The distribution of languages with stress located one syllable in from the word edge shows an interesting asymmetry, however, as noted by Hyman (1977). There are many more languages with penultimate stress than with peninitial stress. Gordon (2000) provides an explanation for this asymmetry in terms of tonal crowding. Final boundary tones are much more common than initial boundary tones cross-linguistically, so that final stress avoidance (i.e., penultimate stress) can be understood as resulting from the repulsion of the tone associated with stress from the final to the penultimate syllable. The Optimality-theoretic constraint NONFINALITY (Prince and Smolensky 1993) thus receives a phonetic explanation instead of being largely formal in nature.

Evidence from Finnish suggests an additional rhythm-based motivation for, and explanation of, NONFINALITY. Primary stress in Finnish is invariably initial and thus serves as a clear word boundary marker, signalling to the listener the beginning of a new word. Experimental evidence by Iivonen, Niemi, and Paananen (1998) corroborates this claim. We might expect secondary stress to serve a similar demarcative function, by marking the *end* of a word. However, secondary stress in light-syllabled words in Finnish occurs on alternating syllables *except* the final syllable, with the added stipulation that odd-parity words contain a right-aligned foot (Karvonen 2005). The closest a secondary stress peak can therefore come to the right edge of the prosodic word is on the penultimate syllable. In an even-parity word such as *mónopòli* ‘monopoly’, secondary stress will always occur on the penultimate syllable due to maximal parsing, but in an odd-parity word like *kólesteròli* ‘cholesterol’, secondary stress could potentially fall on either the third or fourth syllable, but secondary stress always occurs on the penultimate syllable.

In Optimality Theory, the existence of a rightmost-but-not-final secondary stress peak can be modeled by ranking NONFINALITY over an alignment constraint (ALIGN-RIGHT) which aligns a secondary stress peak with the right edge of the prosodic word (Karvonen 2005), but this ranking remains at best descriptive. I suggest that the rightward, but nonfinal alignment of a secondary stress peak in Finnish serves a demarcative function similar to that of primary stress, as follows. Individual words are rarely spoken in isolation and most often are preceded and followed by other words. If a secondary stress peak were to occur word finally in Finnish, it would often be immediately followed by a primary stress peak in the following word, resulting in stress clash on the phrasal level, as illustrated in (1).

Viewed in this way, NONFINALITY in Finnish thus is nothing more than the same basic preference for alternating, rhythmic stress and avoidance of stress clash seen on the word level (where it is encoded in the constraint NOCLASH) as viewed from the level of the next highest prosodic constituent, the phonological phrase. Rhythmic stress in Finnish can thus be derived from the interaction between just two kinds of constraints: alignment constraints, which align word edges (such as LEFTMOST and ALIGN-R); and constraints requiring adjacent grid marks to be non-identical, namely, NOCLASH and NOLAPSE, with no need for NONFINALITY as an independent constraint. Further research will show whether this understanding of NONFINALITY as simply a case of stress clash avoidance at the phrasal level can be extended to other languages as well.

(1) *Stress clash on the phrasal level*



References

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