

Is there a word stress in Estonian?

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Standard Estonian is famous for its distinctive ternary quantity contrast, a cross-linguistically rare phonological feature. The quantity patterns are a foot-level phenomenon and are directly linked to stress: quantity manifestation in the nucleus of any Estonian foot (a sequence from the first syllable vowel throughout the second syllable vowel) is obligatory.

While a lot of phonetic and phonological research is devoted to Estonian quantity, there is still no established theory of the Estonian stress system. Existing descriptions (viz. Asu et al. 2016) do not distinguish clearly between (1) the rhythmic and the lexicalized stress, (2) the foot- and the word-level stress phenomena, (3) the lexical and the post-lexical prosody. Most formal stress accounts of Estonian do not take existing phonetic facts into due consideration, which often results in controversies and even descriptive errors (Viitso 1982, Kuznetsova, *subm.*). Functionally-oriented phonological descriptions (Hint 1973, Viitso 1979) are rich with theoretical ideas, but date back to the time when not much experimental data was available. Modern Estonian stress accounts (Pajusalu et al. 2005, Lippus et al. 2014) describe phonetic facts in detail, but often refrain from phonological judgements. My aim will be to synthesize what is known and unknown about the phonetics and phonology of Estonian stress and to outline a way forward towards its consistent phonetically-informed functional theory.

I suggest a two-level model of Estonian prominence. On top of the quantity-based foot rhythm, there is a pitch-based “macro-rhythm” (Jun 2014) of accentual phrases. In speech, the feet which correspond to the peaks of the accentual phrases receive the most durational and tonal prominence. The feet which happen to occur at the falls of the accentual phrases, are often phonetically flattened, up to the point when no significant differences between stressed and unstressed syllables in a foot are preserved (cf. phonetic findings in Asu et al. 2016: 157-159). Estonian H*L accentual phrase intervals are regular enough by Jun’s parameters, but are sensitive to the placement of the lexicalized foot accents and morphological word borders.

Both the foot rhythm and the accentual phrase rhythm are highly correlated with the morphological word, but at the same time show a certain level of independence from the latter. The morphological word can consist of several feet or be a part of a bigger foot, the former happening more frequently than the latter. The same statement is valid for the accentual phrase, however with a reverse statistical frequency in comparison with the foot. This model would conform to the intuition of phoneticians and functional phonologists about the foot as a central word-level prosodic unit in Estonian (Asu et al. 2016: 160). On top of the accentual phrases, there are the largest units: intonational phrases, which correspond to the syntactic phrases and are marked by phrase-final lengthening, pauses, boundary tones (Asu 2004, Jun 2014). Such a model of Estonian prosody allows to account for a number of phonetic facts which have remained problematic for the phonological interpretation, while appealing for more phonetic studies on the prosody of Estonian compounds.

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