

Zita McRobbie-Utasi
Simon Fraser University, Canada
mcrobbie@sfu.ca

**Comments on Lehiste, I. & Pajusalu, K.'s paper "Experimental study of prosody in
Finno-Ugric languages"**

and suprasegmental levels of the languages examined. There is an impressive number of publications on the prosodic structure of Estonian, Finnish and Hungarian; still, as the authors note “new questions continue to be asked in each case” (Lehiste & Pajusalu, 2010, p.1). The concise summaries they give about the recent state of research on the prosody of these three languages intend to identify the complexities of the respective prosodic systems. In the comments that follow reference will be given to those areas of research that need to be further pursued in order to resolve some of the hitherto unclear issues relating to the prosody of Estonian, Finnish, Hungarian, and the three lesser-known Finno-Ugric languages: Erzya, Meadow Mari and Livonian.

and interpreting ternary distinctions in metrical or moraic phonological analyses. Ogden (1995) provides a detailed account of the theoretical issues involved, emphasizing the

the long quantity have a ratio of 3:2, and those in the overlong quantity have a ratio of 2:1". (Lehiste & Pajusalu, 2010, p.2)

The third area of research relating to Estonian quantity concerns the phonetic

the first syllable of an actual word failed to provide the necessary cue for identification at a level better than chance” (Fox & Lehiste 1989, p. 85). They do not exclude the possibility that the additional cue needed in perceiving Q3 may be stress as proposed in Eek & Help (1987). Additional research, such as Krull (1993a,b, 1997, 1998) and Asu & Nolan (1999) acknowledge the role of intonation on pitch contour. Although in a paper by Ross & Lehiste (2001, p. 49) it is stated that pitch contour is ...”quite stable if words are compared when they occur in sentence-medial position in identical context”, it appears that there is no agreement as yet on what exactly constitutes the additional cue -- which, in addition to duration -- signals the distinction between Q2 and Q3.

1.2 Finnish

and Pajusalu in their presentation refer to an experimental study by Mády and Reichel (2007). The study examined a possible correlation between length and vowel quality, concluding that there is a change in progress in the Hungarian vowel system in terms of quality playing an increasing role in certain instances where quantity contrasts used to be the distinguishing factor. Perception test results indicate a transitional state for mid vowels. The study concludes by stating the necessity of production experiments involving more speakers and expanding the scope of perception tests. This latter objective is of particular interest with regard to the preliminary results of the study, i.e., the fact that listeners tend to hear short vowels as long but not vice versa.

With regard to the binary quantity contrast in relation to the prosodic structure of Hungarian, it is in place to refer here to another paper, “The long and short and the final: Phonological vowel length and prosodic timing in Hungarian” White & Mády (2008). This study raises the question of the relationship between the constraints associated with phonological quantity and the prosodic structure of a language. The material of this experimental study consisted of the contrastive mid back vowels in monosyllabic, disyllabic and trisyllabic words, placed in four sentence contexts: utterance-medial focused, utterance-medial non-focused, utterance-final focused and utterance-final non-focused. It was observed that stress was placed by the speakers in the syllable expected, according to the focus structure of the sentence. The results of the study reveal important information with regard to the interaction of quantity and the prosodic structure of Hungarian. One of the conclusions concerns the lack of polysyllabic shortening – a fact attested to Finnish as well (Suomi, 2007). Among the other conclusions one point in particular calls for additional research: it was evident that preboundary lengthening does

occur in Hungarian, despite the contrastive function of duration – a fact that is contrary to expectations and needs be explored further by considering the relevance of another possible cue, in addition to duration, for boundary signaling.

1.4 Erzya, Meadow Mari and Livonian

It is without any doubt that the Finno-Ugric prosody project is one of the major undertakings in recent years. The prosody of the three lesser-known languages examined has resulted in important findings and identified a number of issues for future research.

1.4.1 Erzya

The acoustic analysis of the material points to the recognition that neither fundamental frequency nor duration is distinctive in that language. Although duration may play some role in identifying a stressed syllable, further research is needed to

be resolved; the authors refer to one minimal pair where the distinction between the members of the pair is achieved by differing stress placement. Although in the monograph (Lehiste *et al.*, 2005) the identifying function of stress is pointed out – i.e., distinguishing between words and non-words – the exact phonological status of stress in the language needs to be further clarified. Likewise, an explanation of the pattern with regard to stress being placed on different syllables by different speakers, in fact, not infrequently by the same speaker, constitute an intriguing challenge for future research -- as concluded by Lehiste *et al.*, 2005, p. 94).

1.4.3 Livonian

With regard to the number of contrastive quantities in Livonian, the traditional two-way quantity opposition view was challenged and a ternary quantity distinction was proposed at the level of metric feet, by taking into consideration the role of durational ratios within the disyllabic foot. It was also observed that there is a tendency toward foot isochrony (see Table 1 in Lehiste & Pajusalu, 2010, p. 6). Further, the role of contrastive

the second syllable is short -- are not sufficient in achieving the contrast, for ...”sentence intonation can override word-level fundamental frequency patterns”. (pp. 37-38)

One of the most intriguing questions concerns the presence in Livonian of the glottal feature, *stød*. While the experiment by the authors was not designed to examine the systematic behaviour associated with the expected consequences of the occurrence of *stød* in long first syllables – i.e., the eliminating of F₀ contour differences -- Lehiste (2010) reports that that the research team did not find any patterns in pitch contour

for Proto-Finno-Ugric, the question is one of how to reconstruct, from present day languages, prosodic features which could have been relevant ca. 4000 years ago”. While the difficulty of this task has to be acknowledged, the experimental studies of the prosodic systems of present day Finno-Ugric languages give a new perspective to comparative analyses. In evaluating the findings of the Finno-Ugric prosody project, one of the striking features to be noted is the empirical evidence for a high degree of diversity associated with the prosody of the languages examined so far. It may also be observed that this diversity is systematic to a degree – it clusters languages in geographical areas where the influence of contact languages containing tone must be taken into account. Here I only refer to Estonian and Livonian where the role of fundamental frequency in

first step to have a clear understanding of the prosodic systems of present day Finno-Ugric languages. In this sense the prosody project has to be considered an essential contribution to Finno-Ugric comparative prosody.

2.2 Implications to general linguistic theory

Two aspects of the implications of research on Finno

still numerous unresolved issues of suprasegmental research. It is hoped that the project will continue by (i) further studying the questions raised in connection with Erzya, Meadow Mari and Livonian prosody, and (ii) extending it to other Finno-Ugric

- White, L. & Mády, K. (2008). The long and the short and the final: Phonological vowel length and prosodic timing in Hungarian. In Barbosa, P.A., Madureira, S. & Reis, C. (Eds.). *Speech Prosody 2008, Fourth International Conference, Campinas, Brazil, May 6-9, 2008*. (pp. 363-366). ISCA Archive, <http://www.isca-speech.org/archive/sp2008>
- Wiik, K. (1991). On a third type of speech rhythm: foot timing. In *Proceedings of the XIIIth International Congress of Phonetic Sciences, Aix-en-Provence, Aug 19-24, 1991*. (pp. 298-301). Aix en Provence: Université de Provence.
- Ylitalo, R. (2009). *The realization of prominence in three varieties of standard spoken Finnish*. Acta Universitatis Ouluensis B. Humaniora 88. Oulu: University of Oulu.