## Eötvös Loránd University Faculty of Humanities

## THESES OF THE PHD DISSERTATION

## Timing patterns in Hungarian speech

by

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- 1. By analyzing measured data (obtained from 20 speakers of standard Hungarian) we have confirmed the statement found in the literature that the characteristics of Hungarian speech rhythm are similar to languages traditionally classified as syllable-timed.
- 2. We found differences between the speech rhythm properties of different speech styles in Hungarian speech. Generally, the duration of both vocalic and consonantal intervals exhibited higher variability in spontaneous speech than in read speech. The values of vowel-based speech rhythm measures ( $\Delta V$ , VarcoV, nPVI-V) obtained for the whole record were found to be consistently higher in spontaneous speech than in read speech production for all speakers. In terms of the other measures this difference between the speech styles did not appear that manifestly in every realization.
- 3. We have disproved the statement found in the literature that the ratio between the combined duration of all vocalic intervals and the total duration of the speech (%V) is independent from articulation rate. In our data the global articulation rate of different speakers showed a certain dependency on %V. This observation implies that speaking slowly or fast is connected to the duration of consonantal and vocalic intervals relative to each other. However, variations within the articulation rate of a given speaker do not show any connection to this ratio.
- 4. We have confirmed (analyzing data from 20 speakers of standard Hungarian) that the segmental durations in utterances of read speech exhibit a generally decelerating temporal trend.
- 5. As far as the read speech and spontaneous monologues of the speakers were considered as a whole, no significant global (decelerating or accelerating) trends were found in terms of stepnumber-stepsize statistics. Instead, it appears that the local temporal patterns (decelerations and accelerations) balance out on such longer time scales.
- 6. When reading separate unrelated sentences aloud speakers tend to decelerate their speech at the end of the utterance more than in the case of reading aloud a coherent text.
- 7. We have demonstrated that in read speech the utterance final positions are frequently marked by nonmodal phonation, decelerating speech tempo, or both. However, with the applied methodology, no direct connection could be revealed between the utterance-final appearance of the two factors.