

Abstract

This thesis aims to thoroughly describe the temporal characteristics of spoken Czech by means of phone durations and their changes under the influence of several prosodic and segmental factors, such as position in a higher unit (syllable, word or prosodic phrase), length of the higher unit, segmental environment, structure of the syllable or phrase-final lengthening. The speech material comes from a semi-spontaneous corpus of scripted dialogues comprising 4046 utterances by 34 speakers. The descriptions are afterwards used for the creation of a rule-based temporal model, which provides a baseline for analysing local articulation rate contours and their speaker-specificity. The results indicate, that systematic speaker-specific differences can be found in the segmental domain, as well as in the temporal contours. Moreover, speaker identification potential of articulation rate and global temporal features is also assessed.

Keywords: temporal characteristics, temporal modelling, phone duration, speaker identification, Czech