

Sociolinguistic conditioning of phonetic category realisation in non-native speech

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The realisation of phonetic categories in non-native speech production may require the shift in the values or, more generally, the re-organisation of the phonetic system of the speaker. Viewed as an emergent system (in the sense of Lindblom 1992, Bybee 2001), speech can be thus investigated at the level of phonetic parameters. Individual parameters are used in realisation of phonetic categories; each parameter is characterised by a range of values, some of which are judged to be the best ones for a given context (e.g. Cho and Ladefoged 1999). When compared to native-speaker values (e.g. Labov 1986), the ones produced by non-native speakers are characterised by a high level of contextual variability (e.g. James 1990), which presents a challenge to a predictive paradigm. The present paper concentrates on a number of speaker-related variables, such as age, the amount of language use, distance to the target language speech community and acculturation strategy and investigates their predictive power on the target-like values of three acoustically defined phonetic parameters: the VOT, closure duration and vowel duration. The results point to the difference in sensitivity of individual parameters to socio-psychological factors, and to the difference in their predictive power: the effect of age has been found to be have the highest predictive value for closure duration, while distance and acculturation strategy have been found to be better predictors of the VOT and vowel duration values. We conclude that the degree of correlation between socio-psychological factors and some of the parameters points to the difference in the degree of control over individual gestures in speech production, proving the relevance of a sociolinguistic approach to a phonetic study of non-native speech.

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