The effects of acoustic-prosodic features in spontaneous speech on listeners’ perceptions of accentedness, comprehensibility and phonological performances

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Pronunciation has been emphasized in foreign language pedagogy because of its strong contribution to successful intercultural communication. The purpose of this study was twofold: 1) to investigate which phonological features contribute more to the ratings on accentedness, comprehensibility, attitudes and phonological performance 2) to find what differences can be characterized on the basis of perceptual ratings from raters with different language backgrounds. Interview data of 20 Chinese speakers of English from Hong Kong (HK) and 10 native speakers of English in the United Kingdom (UK) were collected and analysed in terms of 7 segmental and 10 prosodic features. 40 listeners with various first language (L1) backgrounds (i.e. HK, mainland China [ML], South Asia [SA], and UK.) were recruited to rate the speech samples of the 20 Chinese speakers for the discrete items on the phonological performance and overall impression on speakers’ pronunciation and degree of perceived foreign accentedness, comprehensibility, familiarity, likability, and acceptability.

The results show that wrong pronunciation of vowels was found to have significantly negative correlation with acceptability and consonant deletion in final position has significantly negative correlation with comprehensibility, acceptability, and overall pronunciation. Proportion of prominent words was significantly negatively correlated with rating score of foreign accentedness. Mean length of silent pauses was also significantly negatively correlated with comprehensibility, foreign accentedness, likability, and familiarity. Speech rate was found to have significantly strong positive correlation with comprehensibility, foreign accentedness, likability, acceptability, familiarity, and overall pronunciation.

For the ratings on segmental features, the SA group gave the lowest ratings, followed by the UK group, demonstrating strict native English norms. There was no significant difference between HK and ML groups. For prosodic features and global impressions, the SA group gave significantly lower rating scores than the other three groups. There were no statistically significant differences within other three groups.

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