PhD Thesis Defence

"A critical (re-)assessment of the effect of speaker ethnicity on speech processing and evaluation"

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Abstract:
In recent years, there has been a growing interest in the bidirectional relationship between speech and social processes, as increased attention is given to how speakers’ physical appearance, in combination with their accent, can influence the perception of their spoken language. Two competing theoretical frameworks have been proposed to explain conflicting findings in the existing literature: supporters of the reverse linguistic stereotyping hypothesis argue that listeners’ inherent racial biases against certain groups and their speakers negatively influence their speech evaluations (e.g., Rubin, 1992; Yi, Phelps, Smiljanic, & Chandrasekaran, 2013), while proponents of exemplar-based models of perception maintain that such negative judgments reflect the cognitive consequences of incongruous face–accent pairings (e.g. Babel & Russell, 2015; McGowan, 2015). Using this debate as a point of departure, this cross-cultural and cross-linguistic investigation was designed to determine whether reported effects of speaker ethnicity also extend to online processing speeds. Two response time studies (one using photographs and one using dubbed videos of Asian and White speakers of English) were conducted in Canada, while a third study using dubbed videos of Moroccan and White speakers of Dutch was conducted in the Netherlands. Additional offline dependent measures included sentence verification scores, accentedness ratings, transcription accuracy, and credibility scores. Results from the three experiments showed (1) a processing cost associated with foreign-accented and non-standard speech, but (2) no effect of ethnicity on processing speeds or on the other dependent measures. These outcomes do not support the predictions of either theoretical framework, given that both presuppose an effect of speaker ethnicity on speech evaluation. The fact that the observed null findings are consistent with some previous studies highlights the potential influence of methodological choices underlying the seemingly contradictory findings in the literature. In view of this possibility, the findings are discussed in relation to the distinction between perception and interpretation. Further research will be needed to determine the true nature and magnitude of the effect of visually-based social information on speech processing and evaluation.

Key words:
Audio-visual speech processing; ethnicity; accents; speech evaluation; sociophonetics, racial bias

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