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James Sneed German

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James Sneed German

Aix Marseille Univ, CNRS, LPL, Aix-en-Provence, France

Individuals may have significant experience with more than one variety of their native language. If the non-native varieties are saliently linked to specific social identities, then an individual's production or perception can be biased towards a particular variety through contextual cues that exemplify the associated identity (e.g., [1], [2]). In this study, we explore whether the interpretation of intonational patterns by Singapore English (SgE) listeners is influenced by implicit social cues. Specifically, we ask whether the relationship between accentuation and pronoun reference, which is robust in American (and other) varieties, but weak in SgE, varies with exposure to either a "Singaporean" or "American" contextual cue.

It is well-documented that the reference of personal pronouns in many English varieties depends on intonation, and specifically, whether a pronoun bears a pitch accent or not. Consider the following sentence: (1) *Tim laughed at Shawn, then Stacy laughed at him*. American English (AmE) listeners generally interpret unaccented *him* as referring to *Shawn*, and accented *him* to *Tim*. While these effects have been shown to depend on focus presuppositions associated with clause-level intonation patterns (e.g., [3]), what is of interest to our study is the role of prominence. The realization of this contrast depends on the fact that AmE freely places pitch accents in service of information structure. By comparison, the intonation system of SgE is edge-based: it does not have pitch accents and prominence is determined primarily by prosodic phrasing. Specifically, each Accentual Phrase (AP) begins with a L tone at its left edge, a H tone at its right edge, and has significant lengthening on the final syllable [4]. As a consequence, the prominence of a pronoun depends on its position in a phrase and does not correlate with information structure. Object pronouns tend to fall at the right edge of an AP and generally receive high prominence (which is likely responsible for the impression that SgE speakers stress pronouns inappropriately). Together, these facts predict that SgE listeners are insensitive to prominence in computing pronoun reference as compared with AmE listeners, which we confirmed in a pilot study. Nevertheless, most SgE individuals have substantial contact with AmE, suggesting that their system may adapt based on the regional identity of the speaker and other cues.

In our study, 40 SgE listeners were presented with spoken sentences, which varied in the accentual status of the object pronoun (as in (1)). Participants responded by choosing from two paraphrases, which reflected reference to either the subject or the object of the previous clause. In addition, participants were exposed before and during the experiment to either a "Singaporean" cue or an "American" cue, which took the form of an image of either a popular Singaporean or American television series. The image was construed as being present by accident and was therefore not explicitly linked to the identity of the speaker. The speaker was a native Singaporean with training which allowed him to produce AmE intonational contrasts while maintaining SgE segmental features. Our hypothesis was that if the contextual cues bias the listeners' toward specific systems, then they should show more sensitivity to accentual status in the American condition than in the Singaporean condition.

The results confirmed our hypothesis. Specifically, there was a significant interaction between cue type and accentual status in the expected direction. Contrary to pilot results, however, sensitivity to accentual status was not correlated with listeners' self-reported exposure to AmE, though surprisingly, it was negatively correlated with listeners' attitudes towards American culture. Our findings point towards an exemplar basis for the representation of intonation, in line with findings from explicit training [5] and collocational frequency [6], though this is the first study that shows socio-indexical effects at the intonation-meaning interface. Future studies will explore at which level of representation the socio-indexical cues enter into the overall mapping from phonetic inputs to discourse-level meaning.

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