

Dialectologists have examined the similarity of regional dialects using a number of different methods. Nerbonne and Heeringa (2001) used a computational string comparison metric to assess the similarity of over 100 regional varieties of Dutch. In Japan, Mase (1999) used a map task to obtain judgments of similarity of regional varieties of Japanese from naive participants. More recently, Clopper (2004) examined the perceptual similarity of regional varieties of American English using a free classification task. All three studies uncovered evidence of the important role of phonological variation in the perceptual similarity of dialects through indirect methods of assessment. In the present study, we used a paired comparison similarity rating task to directly examine the role of phonological variation in naive listeners' perceptual dialect similarity judgments.

Four male and four female talkers from each of four regional varieties of American English were selected from the Nationwide Speech Project corpus (Clopper, 2004), for a total of 32 talkers representing the Mid-Atlantic, North, South, and "Third Dialect" (or General American) varieties. Naive listeners from the Midwest heard each talker paired with every other talker once time for a total of 496 trials. On each trial, the listeners heard two different sentences produced by two different talkers and were asked to rate how likely it was that the two talkers came from the same part of the United States on a scale from 1 ("Not at all likely") to 7 ("Very Likely"). This design allowed us to assess the ratings given by participants for same-dialect and different-dialect talker pairs as well as same-gender and different-gender talker pairs.

Overall results revealed that the same-dialect pairs were consistently rated more similar than different-dialect pairs, suggesting that the listeners were able to make accurate discriminations between talkers of different dialects. Same-gender pairs were also rated more similar than different-gender pairs, regardless of dialect, suggesting that the listeners were not able to ignore gender when making their similarity responses. The similarity rating responses were submitted to a multidimensional scaling analysis which revealed three dimensions of similarity: geography (north vs. non-north), markedness (many vs. few characteristic features) and gender. The first two dimensions uncovered a two-dimensional space with one dialect per quadrant: North (unmarked north), Mid-Atlantic (marked north), South (marked non-north), and General American (unmarked non-north). Although the Northern dialect is descriptively marked, the finding that the Northern talkers were perceived as unmarked replicates previous research on the perception of the Northern Cities Chain Shift by Midwestern listeners (e.g., Niedzielski, 1999).

The three perceptual dimensions that were obtained from the multidimensional scaling analysis also replicate the results of previous perceptual research on dialect variation, including Clopper's (2004) free classification experiment which uncovered similar dimensions of similarity. The finding that talker gender had a significant impact on the similarity ratings suggests that gender and dialect are integral perceptual dimensions and research examining the perception of dialect variation must also account for the role of gender in perception.

References

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