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The /ay/s have it: Stereotype, perception, and region

There is no doubt that /ay/ is one of the principal caricatures of US speech. In *American Tongues* a southerner tolerates imitations of his pronunciation of “ice” until he exasperatedly calls his tormentors “ice holes.” Few studies, however, have made use of phonetic detail in investigating regional or group identification and caricature (e.g., Clopper and Pisoni, to appear; Graff et al., 1983; Purnell et al. 1999; Niedzielski, 1999); none has addressed the possibility that a perceptual continuum parallels the continuous nature of phonetic variables. This study attempts to determine if degree of /ay/ monophthongization is relevant to perception of region along a north-south line of nine sites stretching from Saginaw, MI to Dothan, AL, the same used in Preston (1996), in which respondent placements of actual regional voices were elicited.

In this web-based experiment, we present male and female seven-step resynthesized pronunciations of the word “guide” and ask respondents to indicate which of the nine sites they think each voice is from. We determine the gender, age, profession, ethnicity, and region of the respondents, each of whom hears each resynthesized version of “guide” three times. The LPC analysis/resynthesis was done from samples in which target F1 and F2 values at each 20ms frame were calculated to obtain a 7-step continuum of fronting (range 150 Hz) and monophthongization (range 550 Hz). The goals are to determine 1) if degree of monophthongization is important to the positioning of voices along this regional dimension or if some categorical breakpoint exists at which variants are classified as either “south” or “north,” with little differentiation within northern and southern zones, 2) if regional and demographic characteristics of the respondents influence judgments, and 3) if sex of speaker affects judgments.

In a pilot study of Northern Midwestern respondents, monophthongization is gradient within northern and southern regions, but there is a larger break between steps 4 and 5, indicating that degree of monophthongization at that point is most salient. The most monophthongized male voices were rated considerably more southern than similarly monophthongized female voices. On a scale which ranged from 1.00 to 9.00, female voices were given a range of means scores from 1.4 to 4.4 while male voice ratings ranged from 1.8 to 6.2. Standard deviations show there was considerable disagreement about the provenience of the most monophthongized female voices, while the greatest disagreement on male voices was associated with step 4, exactly in the middle. Perhaps incompatible caricatures of southern speech as “incorrect (e.g., Preston 1996) and female speech as “standard” (e.g., Trudgill 1972) account for this unwillingness to identify even the most monophthongized vowels of female speakers as “southern.”

We will report on further findings collected from the web-based study, adding, in particular, analyses of response differences reflecting regional and demographic distinctions among the respondents while continuing to focus on gradience as well as sex of speaker. We will also report on plans to expand this study to include sensitivity to /ay/ monophthongization before voiceless consonants and variation in onset-glide duration (e.g., Thomas, 2001).

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