

Regional Prosodic Variation in American English: Midland vs. South

Most of the variationist research on regional varieties of American English has focused on the vowel system (Labov et al., 2006; Thomas, 2001). However, differences in prosodic patterns are well established cross-linguistically with respect to rhythmic classification (Ramus et al., 1999; Grabe & Low, 2002), intonation, and phrasing (Jun, 2005). Cross-dialect variation in prosodic patterns has been reported for British English with respect to the phonetic implementation of pitch accents (Grabe et al., 2000). In American English, Arvaniti and Garding (to appear) found that talkers from Minnesota and Southern California differed with respect to the number of pitch accent categories they used, while Cole et al. (2005) reported prosodic differences between African American and European American speakers in North Carolina with respect to overall pitch range, f_0 declination, and pitch accent frequency.

The current study was designed to explore prosodic variation in two regional varieties of American English: Southern and Midland. Five male and five female white talkers from each region were selected from the Nationwide Speech Project corpus (Clopper & Pisoni, 2006). Each of the talkers was recorded reading two passages of connected speech: the Rainbow passage (Fairbanks, 1940) and the Goldilocks passage (Stockwell, 2002). These recordings allowed us to analyze prosodic variation over relatively long stretches of speech with identical segmental content across all of the talkers.

In one set of analyses, we examined speaking rate and pause distribution to explore the intuition that Southern speech is slower than other varieties. The results revealed no effects of dialect on overall speaking rate when pauses were excluded. However, the Southern talkers paused more frequently and for longer than the Midland talkers. In addition, we observed more pauses per syllable in the Goldilocks passage than the Rainbow passage in both dialects. Given that the Goldilocks passage was longer than the Rainbow passage, this effect of passage on pause frequency may reflect speech planning on the part of the talkers. The speaking rate and pause distribution findings suggest that perceived variation in speaking rate may be the result of variation in the frequency and duration of pauses across dialects rather than the rate at which speech is produced.

In a second set of ongoing analyses, we are examining overall pitch range, f_0 declination, the frequency of intonation phrases and pitch accents, and the phonetic implementation of pitch accents across the two dialects. We expect that the Southern talkers will exhibit greater pitch ranges and more frequent intonation phrase breaks than the Midland talkers. In addition, we will compare the results from our Southern talkers to Cole et al.'s (2005) results.

The findings from this study reveal the importance of prosodic variation in distinguishing regional varieties of American English. In addition, the speaking rate analysis revealed that differences in pause distribution may lead to the perception of differences in speaking rate. Finally, the set of analyses conducted in this experiment can provide a methodological baseline for examining prosodic variation in other regional and social varieties of American English.

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