

Regional Variation in Temporal Organization in American English
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Research on regional variation in the sound system of American English has focused almost exclusively on vowel quality (e.g., Labov et al. 2005; Thomas, 2001). However, several recent studies have provided preliminary evidence for regional variation in temporal organization, including speaking rate and pause distribution. The results of these studies suggest that Southerners speak more slowly (Byrd, 1994; Jacewicz et al., 2009) and pause more frequently (Byrd, 1994; Clopper & Smiljanic, 2011) than talkers from other dialect regions. Similarly, rhythmic variation has been observed across ethnic varieties of English in New Zealand (e.g., Holmes & Ainsworth, 1996; Warren, 1998) and the United States (Thomas & Carter, 2006).

The goal of the current study was to systematically explore the temporal organization of read speech in six regional varieties of American English: New England, Mid-Atlantic, North, Midland, South, and West (see Figure 1). Recordings of two passages produced by five males and five females from each dialect region from the Nationwide Speech Project corpus (Clopper & Pisoni, 2006) were analyzed. The measures included speaking rate in syllables per second, total number of pauses, mean pause duration, and mean consonant and vowel interval duration.

The results revealed significant effects of regional dialect on measures of speaking rate, pause distribution, and vowel interval duration. Consistent with previous research, the Southern talkers in our study spoke more slowly, paused more frequently, and produced longer pauses than talkers from other regions. The Midland talkers also exhibited a relatively slow speaking rate and high number of pauses, similar to the Southern talkers. The New England talkers spoke most quickly and produced the shortest pauses, whereas the Mid-Atlantic talkers produced the fewest number of pauses. These results are consistent with widely-held stereotypes that Southerners speak more slowly than Northeasterners, and suggest that pause frequency and duration may contribute to the perception of speaking rate differences.

Midland and Southern talkers also produced the longest mean vowel intervals, consistent with a slower overall speaking rate. However, mean consonant interval duration did not differ across dialects, suggesting that the observed speaking rate differences may be due primarily to vowel duration differences rather than differences in articulation rate for all segments. The similarities between the Midland and Southern talkers observed for all of the measures may reflect their geographic proximity, but are striking in comparison to the many vowel quality differences that exist between the two varieties. Thus, the inclusion of temporal properties in the description of these regional dialects allows for a more nuanced understanding of the similarities and differences between language varieties in neighboring dialect regions.

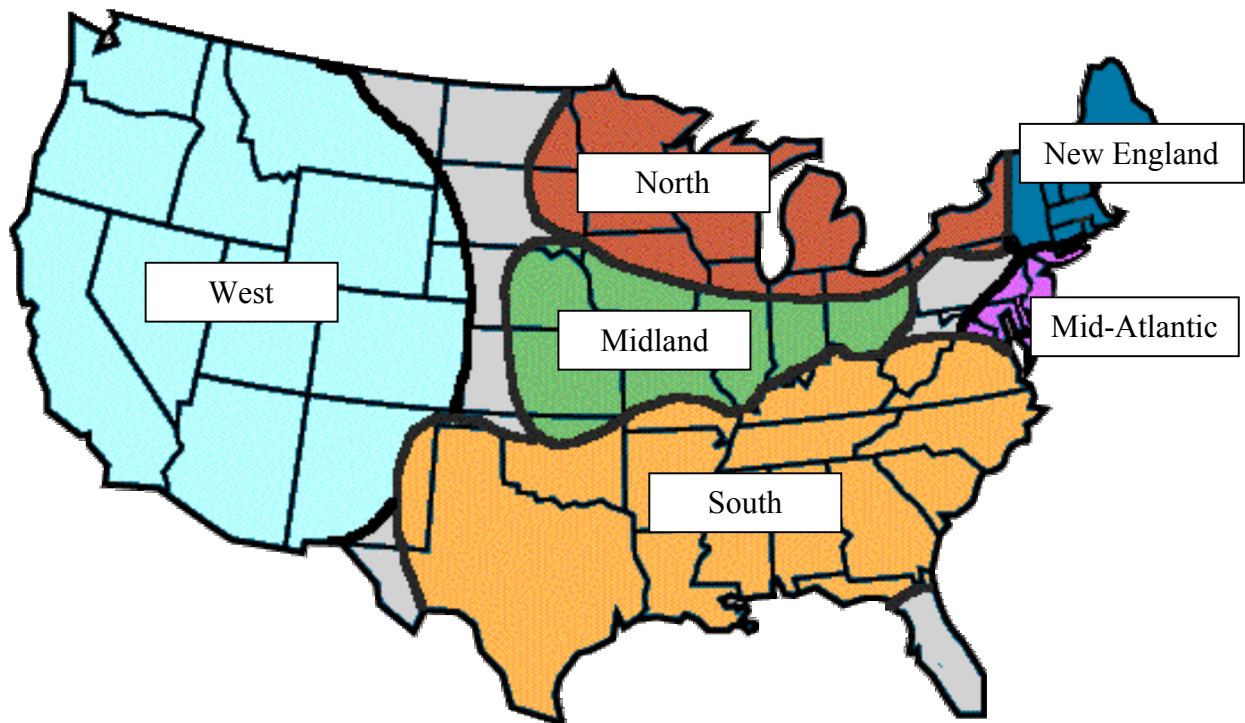


Figure 1. Map of the six dialect regions in the Nationwide Speech Project corpus (Clopper & Pisoni, 2006).

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