

The Status of the Low Vowels in American English

In their *Atlas of North American English*, Labov, Ash and Boberg (2006; hereafter *ANAE*) note that two vowel features are especially pivotal in defining the dialects of contemporary U.S.: The unconditioned merger of the low back vowels and the variety of realizations found for the low front /æ/ vowel evidenced in contemporary American speech (*ANAE* Chapter 11). Of particular note to our work, *ANAE* suggests a relationship between the low front and low back vowels such that the raising of /æ/ and subsequent fronting of the /ɑ/ class in the North inhibits the tendency toward low back merger, a resistance not available in dialects without such fronting. Other scholars also suggest that these two shifts are structurally linked (Bigham 2010, Gordon 2005, Thomas 2001), however very little previous work has examined the details, or robustness, of this “structural linkage”. In this paper, we seek to shed additional light on this relationship among the low vowels by comparing both inter-regional realizations of the low vowel system and how the various low vowels correlate. Additionally, we look at what speakers’ perception of category shift between the low front and low back vowel might tell us about this relationship in production. From this endeavor, we hope to get a better sense of the relational dependency that might exist between the low front and low back vowels and the potential phonological consequences across dialects.