

The Correlation of the Low-Back Vowel Merger and /æ/-Retraction

The combination of the retraction of /æ/ (TRAP) and the merger of /ɔ/ and /ɑ/ (THOUGHT and LOT) can be found in a number of English dialects. In Canadian English, these features are key to the “Canadian Shift” (Clarke, Elms, & Youssef, 1995), though this combination can likewise be found in Northern Californian English (Eckert, 2008). Furthermore, though Gordon has suggested that /æ/-retraction might be expected to be found anywhere the low-back vowel merger exists (Gordon, 2005), /æ/-retraction in U.S. dialects east of the Mississippi River has not yet been reported.

This work presents data showing the combination of these two kinds of vowel variation among speakers of a South Midland dialect of American English. F1 and F2 were measured for /æ/, /ɔ/, and /ɑ/ tokens taken from word list recitation and interview speech data for 49 emerging adult speakers from Southern Illinois (~35 tokens per speaker). These results are compared against data from emerging adults from the Chicagoland and I-55 Corridor regions of Illinois (areas that typically do not engage in low-back vowel merger nor /æ/-retraction). The data clearly show that speakers in Southern Illinois engage in forms of both /æ/-retraction and the low-back vowel merger. While finding the low-back vowel merger in a South Midland U.S. dialect is unsurprising, the discovery of a well backed /æ/ (often further back than the F2 grand mean) in this region is novel.

By interpreting the position of /æ/ as a function of the degree of low-back vowel merger (i.e., always merged, occasionally merged, or always distinct), we see that Gordon’s suggestion is borne out at the community level; that is, the more completely a community of speakers engages in the low-back vowel merger, the more they engage in /æ/-retraction as well. However, the functionalist argument underlying Gordon’s suggestion (i.e., that the retraction of /æ/ follows as a *result* of the “vacuum” in vowel space created by the low-back vowel merger) is not entirely upheld. Specifically, though /æ/-retraction and the low-back vowel merger are linked at the community level, at the level of individual speakers this correlation breaks down.

It will be suggested that by viewing these results through an emergent (usage-based) model of linguistic variation this disjoint can be resolved. Briefly, the emergence model predicts that a speaker’s vowel *usage* (as seen in individual vowel tokens) should more closely fit the perceived vowel space of his or her interlocutors rather than his or her own vowel system. Because one’s speech is often (inevitably? see, e.g., Trudgill, 2004) adjusted to become more like that of one’s interlocutors, a bottom-up feedback loop is generated that, over time, minimizes this production/perception disjoint. However, in early stages of change and/or in dialect contact situations, we are able to “capture” this emergent process before the system “re-stabilizes”. Therefore, though /æ/-retraction and the low-back merger can be “decoupled” in any given individual speaker, a correlation still emerges at the level of a community of speakers. Dialect contact data will be presented that further support this argument.

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