

The Emergence and Evolution of Linguistic Variation in a Transition Zone
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In a transition zone between two closely related dialects, multiple variants of a linguistic feature may be present. How speakers incorporate these competing variants as part of a cohesive mental system is still largely unknown. When the features in question are undergoing change in the dialects on either side of the transition zone, this negotiation between the competing variants is complicated even further. In this work, I present a model that combines connectionist and evolutionary approaches to show how linguistic variation in transition zones is constrained and realized, and how these constraints guide language change.

Though additional support comes from studies of syntactic dialect variation and language contact, the primary data for this presentation are sociophonetic. Vowel tokens from word list citations and interviews (~8000 tokens) were sampled from 40 "emerging adults" (Arnett, 2000) living in a dialect transition-zone. Analyzed speaker variables include gender and amount of contact with speakers from outside the "home" transition zone. Vowel F1 and F2 measurements are analyzed.

The data show that dialect contact (in a transition zone) has the primary effect of reinforcing previously existing phonetic variation rather than introducing novel variants. Specifically, the phonetic variation of any single individual will vary greatly, but this variation will be constrained by overall group norms. That is, the aggregate variants of a speaker's in-group produce emergent stable phonetic categories that the variant forms in the speech of an individual will not violate (see data on the following page).

As the overall in-group members with whom a speaker associates changes, the overall phonetic space in which a speaker may operate likewise changes. This result is even more pronounced in dialect-contact settings, such as the university setting of my research (see, e.g., Trudgill, 1986; Kerswill, 1994). The variant forms of a given speaker follow the patterns of his or her in-group community, thereby rendering what was once an outlying variant now within the core of a phonetic category while rendering other variants "impossible".

This model, then, unites the methods and findings of sociophonetics and dialect contact research with the theoretical phonetic research of Lindblom's "adaptive sound change" hypothesis (see, e.g., Lindblom et al., 1995). Furthermore, it will be shown that by framing this model in a connectionist approach, incorporating multiple linguistic and sociological levels, long standing debates on the nature (Neogrammarian vs. lexical-diffusion) and dissemination (Gravity Model vs. Wave Model) of linguistic change can be resolved. (398 words)

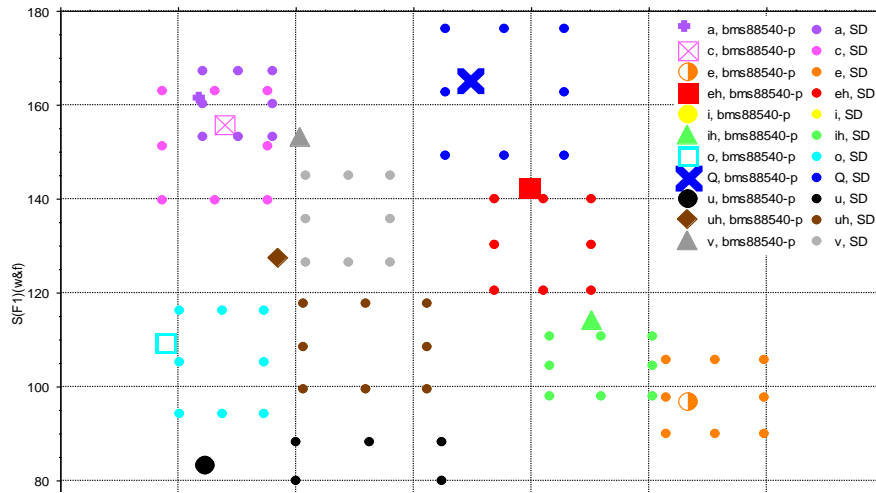


Figure 1. NCS-like Vowel Variation in a Transition Zone Speaker

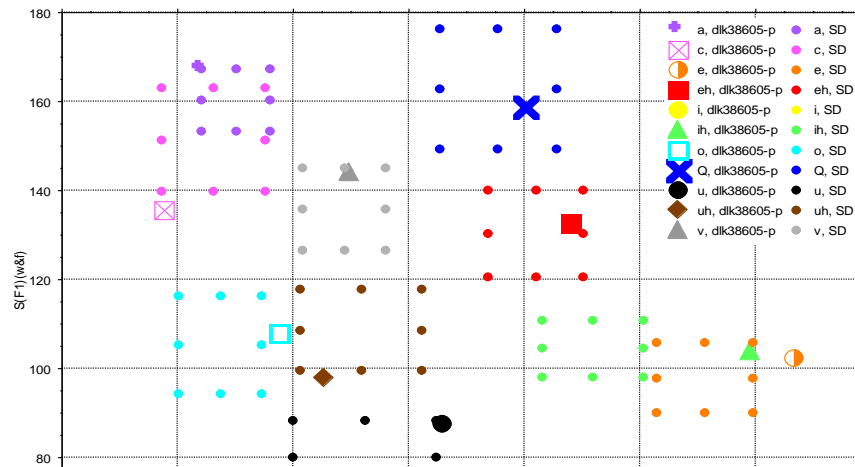


Figure 2. Southern Shift-like Vowel Variation in a Transition Zone Speaker

Note: In comparing Figures 1 and 2, it can be seen that these two speakers, who share the community norms of the transition zone, show very different patterns of variation. However, the ways in which these speakers realize their variants do not violate the phonetic categories of the community. Speaker norms are represented by large symbols, the phonetic category space of the community is represented by small dots.