

## Prosodic skewing of input and the initiation of cross-generational sound change

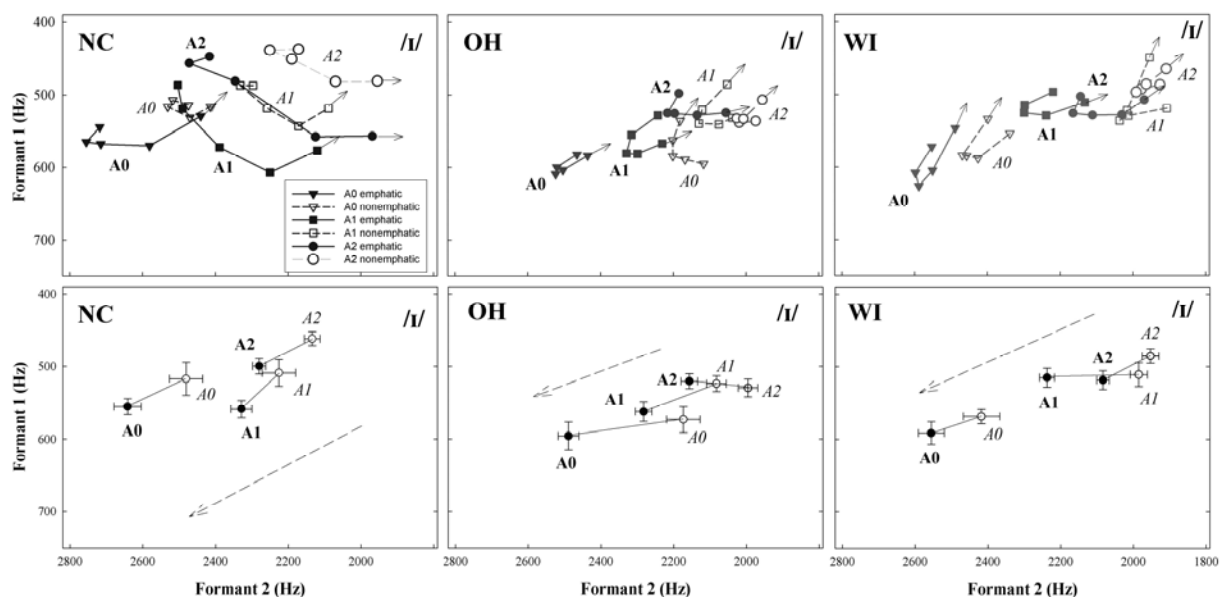
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One of the most basic issues in language change is the relationship between social and structural factors: To what extent is change across generations driven by social factors and to what extent by directly structural factors? Labov defines “the general condition for language change” this way: “Children must learn to talk differently from their mothers, and these differences must be in the same direction in each succeeding generation” (2001:415). Recent research (Labov 2001, D’Arcy forthcoming, others) has focused heavily on social factors like the roles of women as ‘leaders’ in change and the strong identifications with particular social groups forged during adolescence. Such research is providing tremendous progress in understanding sound change.

We explore here a structural counterpart of how children come to differentiate their speech from that of their caretakers, focused on the initiation of change. Namely the input children receive in some cultures may be prosodically skewed, pushing pronunciation in the same direction over successive generations (see Goldberg & Casenhiser 2008 on other kinds of input-skewing). Specifically, emphatic pronunciations of vowels in American English ‘warp’ the vowel space in particular directions. The tendency of caretakers to produce vowels emphatically in speaking to infants and young children (e.g., de Boer & Kuhl 2003) opens the possibility that cross-generational vowel change might correspond to patterns of prosodic emphasis. If this prediction is correct, a younger generation’s non-emphatic vowels should correspond to the position in the acoustic space of emphatic realizations of the same vowels in an earlier generation.

This paper reports the results of an extensive study testing this across three distinct dialects of American English which are thought to be undergoing distinct patterns of vowel change, southeastern Wisconsin, central Ohio and westernmost North Carolina (see also Jacewicz et al. 2006, under review). Results to date strongly support the prediction: the emphatic vowels of each successive generation led and determined the direction of shift. This is illustrated in the figure below, which compares the realization of /ɪ/ over three generations, where A2 is the oldest (adults) and A0 reflects the speech of children, with emphatic (black symbols) realizations and non-emphatic realization (open symbols) plotted for each generation. The same pattern obtains across each of the three dialects and across all three generations.

Directly structural factors appear to play a central role in initiating sound change over the course of cross-generational transmission. In fact, the particular phenomenon under discussion — prosodic skewing of input presented to learners — reflects a particularly close interaction between the structural and the social, namely how vowels are pronounced under prosodic prominence and how caretakers talk to children.



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