

What's Really Happening to Short *A* Before *L* in Philadelphia?

The biphonemic nature of short *a*, with a “tense” (higher, fronter, diphthongized) phoneme /æh/ typically appearing before nasals and voiceless fricatives and a “lax” (lower, backer, monophthongal) phoneme /æ/ in other environments, is a well-known feature of the Philadelphia dialect. An occasionally-commented-upon change in progress affecting this system is the apparent movement of short-*a* before /l/, in words such as *pal* and *personality*, from the /æ/ class to the /æh/ class (Labov 1989, 1994; Roberts & Labov 1995). This is typically described as a process of lexical diffusion, with individual /æh/ lexical items moving to /æh/ one at a time while others stay behind or are transferred later. Brody (2009) found that tensing of /æh/ words is moving toward completion in Philadelphia children, while tensing in words with intervocalic nasals, such as *planet*, has apparently halted after one or two words. Why are these two classes of /æ/ words treated so differently?

This paper examines the status of /æh/ using data from the Philadelphia Neighborhood Corpus, a new corpus of 1,087 recordings of sociolinguistic interviews with native Philadelphians collected over a period of almost 40 years. This allows the possibility of tracking long-term changes in progress in real time, and is large enough to permit relatively infrequently occurring linguistic variables, such as /æh/, to be analyzed. To date, 292 of the interviews in the corpus have been phonetically analyzed, yielding F1/F2 measurements of over 1,300 tokens of /æh/ produced by 226 different speakers, covering a century of apparent time.

The corpus data shows little evidence for lexical diffusion in the tensing of /æh/. Lexical items reported in previous research to be leading the change, such as *alley* and *personality*, are not found to be significantly higher/fronter than other /æh/ words in the data. By far the strongest predictor of the height/frontness of any given token of /æh/ is found to be the same speaker's mean height/frontness of /aw/ (as in *house*). This leads to an analysis of the phonological underpinnings of the tensing of /æh/: Although Labov (1994) implies that /æh/-tensing leads to homophony of words like *pal* and *Powell*, here we suggest that the causality works the opposite way. We propose that merger or near-merger of /æ/ with /aw/ before /l/ took place first (it is reported as early as Tucker 1944), as a result of fronting of /aw/ and vocalization of /l/, and that /aw/ continued from there along its raising trajectory, bringing *pal*, *personality*, etc. along with it. According to this analysis, the description of short-*a* before /l/ as changing from /æ/ to /æh/ is a mischaracterization; rather, short-*a* before /l/ has merged with /aw/, and it is /aw/ that has moved from the phonetic vicinity of /æ/ to that of /æh/. This explains the difference between the behavior of /æh/ and that of /æ/ before intervocalic nasals: the raising of /æh/ is part of a phonetically gradual regular sound change, while the tensing of *planet* is authentically a case of lexical diffusion.

References:

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