

Chapter 7

Conclusions

In this dissertation, I have set out to understand how phonology and phonetics interact over the course of phonetic change with the hope of broadening our knowledge of both sound change, and the general relationship between phonology and phonetics. Drawing upon the data in the Philadelphia Neighborhood Corpus, I've been able to examine the time course of phonetic change in fine detail, and arrived at some surprising results.

- (7.1) When a context is observed to exert a categorical effect (either categorically conditioning or blocking) a phonetic change, that categorical effect is typically already in place at the onset of the change (Chapter 4).
- (7.2) Robust phonetic effects were rarely, or never reanalyzed as being phonological (Chapter 4).
- (7.3) The way in which contexts behave as triggers or non-triggers of phonetic changes are frequently best described in phonological, rather than phonetic terms (Chapter 5).
 - (a) The raising of pre-voiceless /ay/ has always patterned according to the underlying voicing of the following segment, not its surface phonetic realization.
 - (b) The raising of pre-consonantal /ey/ was never conditioned by following /l/, even though a following /l/ appeared to always phonetically favor that change.
- (7.4) There is a striking parallelism across vowel categories for many changes, even after taking into account their social correlation (Chapter 5).

On the basis of these results, I arrive at two primary conclusions. First is that the phonetic changes I have observed in this dissertation operate over surface phonological representations. In terms of the grammatical model I outlined in Chapter 2, phonetic changes are the shifting phonetic implementation of surface phonological representations. It may be possible for alternative grammatical models to explain the results that I found, but they do not *predict* them. Secondly, I argue that phonological innovations are not the *product* of phonetic change, but rather are in place at onset of phonetic changes. This conclusion is a rather substantial shift away from the conventional wisdom regarding phonologization, which is why I devote a considerable portion of Chapter 6 to arguing for the plausibility of this conclusion.

There are a number of ways in which this research project can be pushed forward. First and foremost, in this dissertation I have examined 7 vowel shifts in Philadelphia. In order for my results to be maximally credible, replications of these results for as many changes in as many speech communities as possible will be necessary. Moreover, these results should hold true of other kinds of phonetic change beyond just shifts in a vowel's central tendency.

Secondly, there are a number of points I made in the argument for the plausibility of spontaneous phonologization which require further investigation. Specifically, a broader search for idiosyncratic phonological variation which corresponds to small phonetic correlates, like those discovered by Mielke et al. (forthcoming), should be carried out. A key demographic group to turn to for such a search would be adolescents. According to the Peaks Model (Labov, 2001; Tagliamonte and D'Arcy, 2009), adolescents undergo active reorganization of their language from those forms acquired on the basis their caregiver input, to those further influenced and constrained by the social structure of their peer groups. It would be ideal to capture the idiosyncratic phonological variation, if it exists, at this period of speakers' life, before they are ironed out by social forces.

Ideally, studies of this kind could also be added to the toolkit of phonological investigation. Just as the fact that a set of segments pattern together either as triggers or undergoers of a phonological process can be taken as evidence for their membership in a phonological natural class, so can the fact that they all undergo the same phonological change. In addition, principles like the

Unity Principle, which I proposed in Chapter 4, can be used to differentiate between phonological and phonetic processes.

Bibliography

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