

Chapter 10

Conclusion

The Introduction stated that the goals of this dissertation were threefold: empirical, methodological, and theoretical. This final section will briefly summarize how these three goals were met, and discuss a few areas where further research is warranted.

First of all, the methodological aim of producing a valid sociophonetic analysis of vowels through completely automated means was achieved. Using the technique of transcription and subsequent forced alignment, I was able to quickly create a time-aligned corpus in which examples of all words and phonemes of interest can be extracted quickly and easily. This methodology is easy to implement, and the necessary software is freely available. The fields of sociophonetics, sociolinguistics, and dialect geography would benefit greatly from the adoption of the methodology of forced alignment, since it would enable the analysis of much larger amounts of data. With the continual increase in publicly available speech corpora, the widespread use of forced alignment and automatic phonetic analysis would bring about an dramatic increase in the types of analyses that could be conducted and the number of speakers that could be considered.

As Chapter 4 showed, however, several error-reduction techniques need to be applied concomitantly with a fully automated acoustic analysis in order to ensure that the results

are comparable to a careful manual analysis. Further research in this area will hopefully standardize and improve upon these techniques. A particularly fruitful line of research will be the use of robust statistics for error exclusion and outlier detection.

On the empirical side, this dissertation makes a contribution to the ever-growing body of research available about the merger of /o/ and /oh/ in North America. Specifically, it demonstrates that the merger took place in the city of Erie before 1900, and gradually spread outward to the smaller towns and rural areas throughout the county. My field work also shows that the merger is continuing to spread into areas previously on the other side of the North / Midland boundary, and has gone to completion for the youngest generation in the town of Ripley, NY. An important area for follow-up research is the towns in New York past Ripley to the North on the way to Buffalo. Unfortunately, the field work for this dissertation did not include any speakers from the younger generations from these towns, so it is impossible to say with certainty what the status of the merger there is. It is possible that it is also in the process of spreading beyond Ripley, but the lack of apparent time evidence from these other towns along Lake Erie in New York means that we can not know for sure.

On the other hand, my field work shows that the city of Erie is located on the Northern side of the boundary with respect to the back upgliding vowels. The Midland pattern of strong fronting of /ow/ and /Kuw/ is not exhibited by speakers as far North as Erie: it appears to be more specific to Pittsburgh and the other areas of Western Pennsylvania more traditionally associated with the Midland.

With respect to the theoretical questions, the empirical evidence suggests that dialect boundaries for different subsystems of vowels can fall in different locations. Additionally, the types of boundaries associated with each subsystem can be different. The evidence for the merger of /o/ and /oh/ presented in Chapter 6 showed a sharp boundary: there are very few speakers on the Northern side of the boundary who show any evidence of the merger, and no speakers on the Midland side of the boundary who show evidence of

the distinction. On the other hand, the boundary for the back upgliding vowels is more diffuse. For example, Figure 7.6 showed how there are a few speakers in Erie and North East who show the strong fronting of /ow/ that is characteristic of Pittsburghers, whereas there are also a few speakers from Western Pennsylvania south of Erie County who have mean values of /ow/ less than 1300 Hz. This evidence indicates that the Northern and Midland systems overlap to some degrees in the boundary area. This, in turn, suggests that sharp boundaries occur when the feature in question is categorical in nature (such as a phonemic merger), and that less discrete boundaries occur when the feature is phonetically gradient in nature (such as vowel fronting). Further research into other boundary regions with distinct boundary locations for different vowel subsystems will hopefully shed more light on this.

The evidence presented in Chapter 8 for the lexical and morphosyntactic variables shows that the speakers that pattern with the Midland with regard to the merger of /o/ and /oh/ generally also use the Midland variants for positive *anymore* and *need* + Past Participle. Furthermore, Erie is also differentiated from the Northern region in the neighboring area of New York by the lexical variables *elementary* and *redd up*. While this evidence does seem to suggest that these lexical and morphosyntactic variables pattern together with the status of /o/ and /oh/, a more likely explanation for their correlated boundaries can be found in the settlement patterns.

The Midland lexical and morphosyntactic variables under discussion all became Midland features through heavy Scots-Irish settlement. Additionally, the early and complete merger of /o/ and /oh/ in the area of Western Pennsylvania around Pittsburgh is likely attributable to Scots-Irish settlement in the area. Thus, it seems likely that the spread of these features to the city of Erie also can be attributed to the relatively large presence of Scots-Irish settlers in Erie in the 19th century. This, then, relates to my proposed explanation for Erie's unique dialectological history: its switch from the North to the Midland was

brought about by a large early presence of non-Northern (especially Scots-Irish) settlers. As discussed in Chapter 9, further research into the settlement histories of Northern towns such as Cleveland and Buffalo is necessary to verify these claims.