

## The role of ambiguity avoidance in (near-)mergers

Mergers and near-mergers are often studied by those of us interested in dialectology and language change as they provide, on the one hand, a useful diagnostic for regional isoglosses, and on the other hand, a serious challenge to many widely-held views about the way linguistic change (and language, more generally) is transmitted (Labov 1994). However, previous studies of near-mergers and mergers-in-progress (DiPaolo & Faber 1990, Faber & DiPaolo 1995) have not explicitly taken into account the role of ambiguity avoidance as a possible explanation for the asymmetry observed between speaker production of distinct sounds and listener perception of merger.

Here I investigate the near-merger of front tense/lax vowel pairs (i/I and e/ε) before /l/ in the rural Ohio Valley. I compare their production by each speaker in four production tasks. Two tasks include eight minimal pairs of coda /l/ words in identical sentential contexts as in (a), with the potential merger-induced ambiguity resolved by a disambiguating introductory clause in one condition, as in (b). The other two tasks include the same eight minimal pairs, presented with members of each pair randomly distributed in a list of fillers in one task and presented with members adjacent in a list with other adjacent minimal pair fillers.

- (a) She thought the *hills* looked too high.  
She thought the *heels* looked too high.
- (b) Jamie wanted to learn to ski, but she thought the *hills* looked too high.  
Jamie wanted to borrow my dressy shoes, but she thought the *heels* looked too high.

These tasks are all similar in spirit to the styles elicited in a traditional sociolinguistic interview, but have been modified to test the role of ambiguity avoidance in the production of phonetic distinctions that are not used by listeners to discriminate the two vowels in perception. The sentential context tasks have the advantage of more closely approximating conversational speech, and allow for the manipulation of whether or not the presence of merger would create lexical ambiguity. In the task exemplified by (a), the semantic context is insufficient to overcome the potential lexical ambiguity induced by merger, while in the task seen in (b), the introductory clause provides the semantic context needed to resolve any potential lexical ambiguity induced by merger. In both the word list and minimal pair list reading tasks, lack of semantic context makes merger-induced ambiguity possible for every token.

Tokens are analyzed as vowel (steady F2)+ offglide (falling F2)+ /l/ (steady F2) with reference F1/F2 frequency at the midpoint, voice quality index at each quartile, and relative duration for each segment. Preliminary analyses indicate that speakers are sensitive to the disambiguating role semantic context can play and display the greatest degree of merger in contexts like (b). When phonemic vowel distinctions are preserved, they are most strongly correlated with relative duration of vowel and offglide, followed by F1/F2 at vowel midpoint, with other parameters contributing relatively little to the distinction preservation. Robustness of distinction in any given task is further tied to relative lexical frequency of the members of a minimal pair.

## References

- Di Paolo, M., and Faber, A. 1990. Phonation differences and the phonetic content of the tense-lax contrast in Utah English. *Language Variation and Change* 2, 155-204.
- Faber, A., and Di Paolo, M. 1995. The discriminability of nearly merged sounds. *Language Variation and Change* 7, 35-78.
- Labov, W. 1994. *Principles of Linguistic Change: Internal factors*. Oxford: Blackwell.