Adult linguistic stability and the gathering of linguistic evidence

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How stable are the linguistic systems of adults?

What are the ramifications of any instability for linguistics as an evidence-based enterprise?

Methodological assumptions

The validity of evidence gathered in linguistic studies is dependent on the satisfaction of a number of methodological assumptions. In many cases, if these assumptions are violated, the evidence that is collected is obviously inappropriate for the purpose it was ostensibly gathered for. For example, grammaticality judgments about German must come from the rules used by native speakers of German, not French. Similarly, sociolinguistic studies of Southern American English must use evidence gathered from speakers of Southern American, not Irish, English. Other assumptions, however, are more subtle.

The assumption of adult linguistic stability

For several decades, sociolinguistic researchers have used apparent time as a convenient, quick, and inexpensive stand-in for real-time longitudinal studies. However, as some have pointed out, the apparent time construct rests on certain incompletely tested assumptions. One of these is the assumption that, absent major pressure on the linguistic system (from trauma to the speech centers of the brain, vocal tract pathology, constant exposure to a second language, or such), the vernacular linguistic production of individuals remains essentially stable throughout their adult lives.

Testing the assumption

To test the assumption of adult linguistic stability, I conducted two related studies in Waldorf, a medium-sized city (population 55,691) in Southern Maryland. The first extends my earlier apparent-time analysis of Waldorf /aɪ/-monophthongization by adding data from an oral history archive and the LAMSAS survey, allowing a comparison between the effects of speaker year of birth and year of data collection. The second involves an analysis of two rounds of interviews conducted about a year and a half apart with three Waldorf natives, allowing individual intraspeaker differences to be analyzed.

The site of the studies
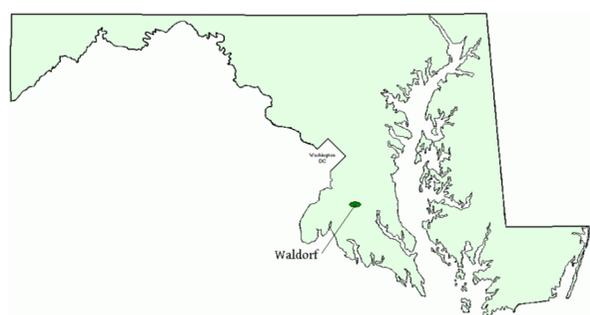
/aɪ/-monophthongization data

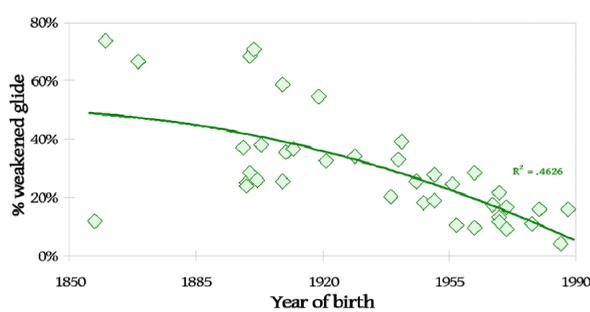Data for the /aɪ/-monophthongization study comes from:

- ☑ My 2001 apparent-time analysis
  - ☑ 25 speakers born between 1909 and 1980
  - ☑ Data collected in the late 1990s
- ☑ Southern Maryland Studies Center oral histories
  - ☑ 9 speakers born between 1898 and 1912
  - ☑ Data collected in the late 1960s and early 1970s
- ☑ LAMSAS survey data
  - ☑ 5 speakers born between 1857 and 1901
  - ☑ Data collected in the 1930s

Intraspeaker variation data

Data for the study of intraspeaker variation comes from:

- ☑ 3 speakers interviewed as part of a larger study
  - ☑ Theona, Elise, and Helen (all pseudonyms)
  - ☑ Born (respectively) 1919, 1946, and 1978
  - ☑ Interviewed in 1997, re-interviewed in 1998
  - ☑ Interviews occurred just under 1½ years apart
  - ☑ Nobody involved knew they were re-interviews
- ☑ Data taken from first 10 to 15 minutes
  - ☑ Made up entirely of chatting and gossip
  - ☑ All stressed vowels analyzed

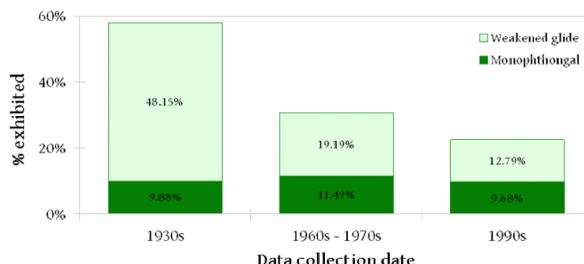### /aɪ/-monophthongization in apparent time

Intraspeaker vowel class variation

Changed (interview to interview) vowel classes circled:

/aɪ/-monophthongization in real time

A logistic regression analysis finds that real time has a strong effect separate from apparent time

Conditioned intraspeaker variation

- ☑ Long-o word-finally vs. word-internally
  - ☑ Helen and Theona are consistent
  - ☑ Elise fronted them the same in 1998 only
- ☑ Raising of /aɪ/ before voiceless obstruents
  - ☑ Helen produced the raised variant in 1997 only
- ☑ The pin-pen merger
  - ☑ Helen makes a distinction consistently
  - ☑ Elise merged them in 1998 only
- ☑ Raising and fronting of short-a before nasals
  - ☑ Helen raised and fronted consistently
  - Put succinctly, speakers are inconsistent

Handouts

So what?

This has ramifications for all subfields of linguistics that use data from speakers—how can a researcher know that any linguistic behavior being observed (even, say, the grammatical intuition of a given native speaker of a language) is actually reliably representative of that individual's overall behavior? At this point, we can't. What we need to do is investigate the parameters within which any given individual's linguistic behavior can vary (including an investigation of whether linguistic behaviors are normally distributed). This will allow us to draw stronger generalizations from stronger evidence.

Selected references and acknowledgements

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I would like to thank the Southern Maryland Studies Center at the College of Southern Maryland in La Plata, Maryland for allowing me to use their oral history archive for part of this study.