24.914

Age-Related Variation
Readings and Assignments

• Assignment: Lexical diffusion, due 3/19
• Reminder: Labov (1963) Social motivation of a sound change.
Age-Related Variation

• Within a geographical area, we often observe systematic variation in phonetics/phonology across speakers of different ages.

• For example, pronunciation of GOAT vowel /ou/ in Philadelphia (Labov et al 2013, Fruehwald 2013)
  – F2 normalized for each speaker – subtract mean, divide by s.d.
  – Plot F2 of GOAT nucleus by date of birth of speaker

owF: word-final
owL: preceding /l/
ow: other
Age-Related Variation

- Example 2: *pin-pen* merger in Charleston S.C. (Baranowski 2013)
  - Speakers read potential minimal pairs, and were asked to judge whether they were the same (0), close but slightly different (1) or different (2).
  - Plot shows mean rating for each age group.

Figure 10. Merger of *him* and *hem* in production by decade; minimal-pair test (0 = merged, 2 = distinct) mean values for 96 speakers
Age-Related Variation

• Age-related variation of this kind is commonly used to identify a change in progress.
  – Change in ‘apparent time’

• What assumptions must hold for us to infer the existence of a sound change in progress from a pattern of age-related variation?
  – What else could give rise to the observed patterns?
Do speakers change their phonetics/phonology over the course of their adult life?
– Do they participate in ongoing sound changes?

To address this question, we need recordings of a speaker over a period of decades, recorded under comparable circumstances (to control for style-shifting).

– 36 years
– Recordings from the same setting.

Selected 9 recordings from 50’s, 60’s and 80’s, about 5 minutes each.

Measured formants of all accented vowels.

Report on monophthongs /i, ɪ, e, æ, ʌ, a, o, ɔ, u, u, ə/.

Compare to 5 female speakers of 1980’s Standard Southern British English
Change in the individual – Queen Elizabeth II

- Bark is an auditory frequency scale
- $5 = \text{mean from 50s}$
- $8 = \text{mean from 80s}$
- $S = \text{mean of comparison speakers of SSBE}$
- Most of the Queen’s vowels shift towards standard 80s English between 50s and 80s.
Change in the individual – Queen Elizabeth II

• The Queen’s accent has changed over time.
• The changes are in the direction of English spoken by younger, middle class speakers
  – although the Queen’s speech remains quite distinct from SSBE.
• So in this case change within the individual is in the same direction as change going on in the community.
  – Other studies of change within the individual draw similar conclusions.
• In this situation, a study of change in apparent time would underestimate the magnitude of change.
24.914

Social Variation
Age and social variation

• The GOOSE and GOAT vowels /u/ and /oU/ are fronting in the speech of white speakers in Charleston, S.C.

• But not, or less so, in the speech of most African Americans (Baranowski 2013).

  – red circles: African American, blue crosses: White

  /u/ following non-coronals /oU/ in closed syllables
Social variation

- Different social groups in the same geographical area can have different accents
- In some cases this reflects the fact that language can change differently among different social groups
- What does this tell us about how language change operates?
Social variation

• Centralization of diphthongs on Martha’s Vineyard (Labov 1963).

• The English of Martha’s Vineyard shows variation between PRICE /aɪ/ and MOUTH /aʊ/ vowels with higher or lower nuclei: [aɪ]~[ɐɪ]~[əɪ], [aʊ]~[ɐʊ]~[əʊ]

• ‘But just as long as I draw the breath of life I’ll be down in my boat in the mornin’, at six or half past six in the morning, bound somewhere, doing all that I can, as best as I can, to the best of my ability and knowledge . . . because I take a pride in doing that, somethin' I know, and I feel that I’m doing something . . . important.’
