The Quantitative Study of Sociolinguistic Variation

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Sociolinguistic variation is

- A robust social semiotic system
  - A system of pure indexicals
- A mechanism of change
- A design feature of language
Language is

- a social practice.
  - Enabled by, and reproducing, structure.
  - Not something that we “acquire” and then “use”.
  - Not something we take off the shelf and replace unscathed.

- A social-indexical system.
  - Not just a system for communicating propositional meaning.
  - Constructs, not just reflects, the social.

- Designed for change.
  - Not a system that “just happens” to change.
  - Integral to social change.
First Wave: Developing the big picture

- Large survey studies of geographically defined communities
- The socioeconomic hierarchy as a map of social space
- Variables as markers of macro-social categories and carrying class-based prestige/stigma
- Style as attention paid to speech, and controlled by orientation to prestige/stigma

The First Wave: Some Urban Studies

- CEDERGREN, HENRIETTA. 1973. The interplay of social and linguistic factors in Panama, Linguistics, Cornell University: PhD.
- MODARESSI, YAHYAH. 1978. A sociolinguistic analysis of modern Persian, University of Kansas: PhD.
Second Wave
The ethnographic perspective

- Ethnographic studies of local social categories and configurations.
- Local categories and communities of practice as link between the macro- and the micro-sociological.
- Variables as indexing locally-based groups and categories.
- Style as acts of affiliation.
Third Wave: A focus on meaning

- Studies of individuals and communities of practice.
- Construction of personae links the everyday to community patterns of variation.
- Variables as signs (indexes).
- Styles as constructions that gain their meaning in larger cultural paradigms.
Earlier responses to variation: Ignore it

- Saussure, F. de. (1916). *Cours de linguistique générale*.
It’s there, but ...


  
  “no one will doubt that man’s changing needs in general will affect his communicative needs which in turn, will condition linguistic structure.... The linguist ... may be excused if, in his capacity as a linguist, he declines the invitation to investigate sociological conditioning.”.
As for change ...

- Saussure, F. de. (1916). *Cours de linguistique générale*.
  - Separation of synchrony and diachrony.

  - The process of linguistic change has never been observed.
  - Change spreads by virtue of density of contact.

- Variation as change in progress.
- The social matrix structures the spread of change.
- “A position of sociological agnosticism in structural linguistics has become obsolete. Sociological factors, solidly formulated, have now been adduced to explain distributions and shifts in linguistic phenomena which, from a structural point of view, would have been seen as random.”
Early studies of variation

  - “Je dois avouer que je me sens un peu isolé cette fois. La question des dialectes a été l’objet d’une vive et savante discussion, la variété qui existe dans la prononciation des représentants d’un même patois local n’a guère été étudiée systématiquement, malgré l’intérê qu’elle offre pour la connaissance de l’évolution linguistique.”
  - “Une langue ne contiendrait-elle pas en elle-même, par sa composition phonique, les éléments de son évolution?”
Early studies of variation

  - Found friendship contacts as the avenue of linguistic influence.
  - The type of interaction was more important than simple density of contact in explaining linguistic distributions.
Early studies of variation


Centralized (ay) and (aw) on the Atlantic Coastal Islands
Down-Island, leaving

Up-island, staying

(ay)

(aw)
“...the immediate meaning of this phonetic feature is ‘Vineyarder.’ When a man says [ʁæjt] or [ʰæʊs], he is unconsciously establishing the fact that he belongs to the island: that he is one of the natives to whom the island really belongs.”
The sociolinguistic interview

- The observer’s paradox
- Controlling for style
  - Casual
  - Careful
  - Reading passage
  - Word list
  - Minimal pair list

(ING): a stable variable

% apical (ING) in New York

Another Stable Variable

(dh) index
0  [õ]
1  [dõ]
2  [d]

(dh) in New York City
The New York short-a system

<table>
<thead>
<tr>
<th>(ae)</th>
<th>(aeh)</th>
</tr>
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<tbody>
<tr>
<td>cap</td>
<td>cab</td>
</tr>
<tr>
<td>bat</td>
<td>bad</td>
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<td>Jazz</td>
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</tr>
<tr>
<td>haggle</td>
<td>hag</td>
</tr>
<tr>
<td>wagon</td>
<td>waggin’</td>
</tr>
</tbody>
</table>

(aeH) index

1 [iɛ]

4 [æ:]
Change in Progress

(oh) raising in New York by style and SES

Casual | Careful | Reading | Word List

- Upper Middle Class (9)
- Lower Middle Class (6-8)
- Working Class (3-5)
- Lower Class (0-2)

(oh) index
1 [uə]
4 [ɔ:]
Change from above
(ING) in Norwich by social class, style and gender

Source: Trudgill 1974
Two common gender patterns

- Gender theory not robust, dependence on male/female binary. Led to Labov’s “gender paradox.”
  - In the use of stable variables, women use more of the standard variant than men.
  - In sound changes in progress, women use more of the innovative (local, non-standard) variant than men.
(aes) in Philadelphia

(oh) and (aeh) in New York
Fig. 7.2. Class stratification for (oh) by ethnic group in casual speech. Solid line, Jews; broken line, Italians. SEC: 0–2, lower class; 3–5, working class; 6–8, lower middle class; 9, upper middle class.

(dh) stopping in New York

(dh) index

0  [ð]
1  [dð]
2  [d]
Age

- Historical change in apparent time
  - change in the speech of the community as it moves through time.

- Age grading
  - change in the speech of individuals as they move through life.
Merger of LOT and THOUGHT in California

Posttonic lengthening in California

- Lengthening decreases with age
- Gender effect does not reach significance, but suggestive

Adult Data

- Lengthening decreases with age ($p > 0.001$).
- Gender is now highly significant, with women leading men ($p > 0.001$).
Preadolescent Data

- Gender difference among pre-adolescents (with girls leading boys) is not significant, though just suggestive ($p > 0.0945$).
uvular (r) in Montreal


Individual changes in % uvular (r)

First Wave Assumptions emerging from focus on sound change

- Variables as direct markers of predetermined social categories.
- The socioeconomic hierarchy as basic and enduring, and path of spread of change.
- Gender as parasitic on class (the “gender paradox”).
- Meaning limited to class-based prestige/stigma.
- Speech Community as consensual unit.
- Variable rules as community grammar.
- Style as cline of formality, attention to speech.
Variable rules

Cumulative and convergent results of this nature confirm my belief that inter-subjective knowledge about abstract linguistic structures is within the grasp of linguistic theory.

... provide a model for linguistic research which will arrive at decisive solutions to theoretical questions through the use of data from the speech community. I believe that this mode of work can provide the stability and sound empirical base which is a matter of some urgency in linguistics...


A variable rule

Figure 2
VARBRUL 2 Analysis of Three Constraints on Final \( d \) Deletion for New York City Puerto Rican Male Adolescents

\[
[d] \rightarrow < \emptyset > / < \pm \text{Stress} > ___ ## < \sim V > < \# >
\]

*Overall Tendency*: .410

<table>
<thead>
<tr>
<th>Following Vowel</th>
<th>Stress</th>
<th>Grammatical [d]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Present .275</td>
<td>+ .445</td>
<td>Present .451</td>
</tr>
<tr>
<td>Absent .725</td>
<td>− .555</td>
<td>Absent .549</td>
</tr>
</tbody>
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Structuralist tenets

- Goal - to explain internal cohesion that allows societies to be stable.

- Society as a bounded relational construct
  - Its parts (social institutions) work together, constituting social equilibrium.
  - Focus on institutions
    - Family, religion, media, schools, government ...

- Individuals as temporary inhabitants of enduring roles
  - The individual is significant not in and of him- or herself but in terms of place in the system.
  - Outliers and exceptions as noise.
Empiricism

- **Replicability**
  - Interview protocols to elicit comparable styles.
  - Sampling by, and correlations with, macro-social categories.
  - Quantitative analysis.

- The vernacular as scientific object.
Vernacular: 2 senses

- Classic definition (community vernacular): indigenous or local language used by “ordinary people,” in contrast to a superposed standard or literary language.

- Labov’s (1966) definition (individual vernacular): the language first acquired by the language learner, controlled perfectly, and used primarily among intimate friends and family members.
The vernacular

- The direct output of the unconscious.
  - Systematic, source of regular change.

- Stylistic variation due to resistance.
  - Cognitive dimension: attention
  - Social dimension: avoidance of stigma/quest for prestige

- Qualifies vernacular as natural scientific object.
  - Lack of agency