Corpus methods for sociolinguistics

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Overview

- Introduction
- Corpora of interest
- Software for accessing and analyzing corpora (demo)
- Basic programming tools
- Creating & publishing corpora
Introduction
Sociolinguistics IS corpus linguistics
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- Study naturally occurring data
Sociolinguistics IS corpus linguistics

- Study naturally occurring data
- ... in context
Sociolinguistics is corpus linguistics

- Study naturally occurring data
- ... in context
- ... including frequency of (co)-occurrence
Goals
Goals

- What kinds of resources are out there
Goals

- What kinds of resources are out there
- How to learn more about those resources
Goals

- What kinds of resources are out there
- How to learn more about those resources
- How to find more resources
Goals

- What kinds of resources are out there
- How to learn more about those resources
- How to find more resources
- Encourage you to create & publish corpora
Rules of thumb

If it’s tedious, a computer could probably do it for you.
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If you’ll be doing much more of it, or doing it again later, it’s probably worth figuring out how to get a computer to do it for you.
The only URL you need to know

http://www-csli.stanford.edu/~bender/corpora_sociolx.shtml
Corpora of Interest
BNC
• 1994
BNC

- 1994
- 100,000,000+ words (90% written, 10% spoken)
BNC

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- Some coding for age, gender, region, social class, audience, genre
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Some coding for age, gender, region, social class, audience, genre

Available for purchase (£250/network license, £50 single user license) or online subscription (price depending on number of machines it will be used on)
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- Some (limited) access is available for free online
**BNC**

- Supported by bnc-discuss, a mailing list on the use of the BNC
BNC

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- Marked up with SGML
BNC

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- Marked up with SGML
- Comes with SARA software for easy access
ANC

- In progress
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- Modeled on the BNC
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- Core corpus: 100,000,000 words, similar genre distribution to BNC
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- Modeled on the BNC
- Core corpus: 100,000,000 words, similar genre distribution to BNC
- Plus potentially several hundreds of millions more words
ANC

- First installment (10 million words) this fall
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  - preliminary search tools
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  - spoken data: LDC Switchboard & CallHome (2 million words)
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  - written data: NYT (1.5 million words), ephemera, novels
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- Completion in 2004
ICE
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- Parallel corpora from 20 sites around the world
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- Spoken and written, 1990–1996
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- Spoken and written, 1990–1996
- Spoken genres include conversations, classroom lessons, broadcast interviews, legal cross-examination, parliamentary debate
- 1,000,000 words in each corpus
A few others

- Switchboard (LDC): strangers speaking to each other over the telephone on randomly selected topics (speech files & transcripts) (American English)
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- CallHome (LDC): telephone conversations between close friends & family members. (speech files & transcripts) (American English, Egyptian Arabic, German, Japanese, Mandarin, Spanish)
A few others

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- CallHome (LDC): telephone conversations between close friends & family members. (speech files & transcripts) (American English, Egyptian Arabic, German, Japanese, Mandarin, Spanish)

- CallFriend (LDC): like CallHome, more languages, not (yet?) transcribed
A few others

- LIPPS (TalkBank): Language Interaction in Plurilingual and Plurilectal Speakers (code-switching data)
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- CHILDES (TalkBank): Language acquisition data (child and adult, first and second language)
Where to find corpora
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- TalkBank
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- The corpora mailing list
Software
Kinds of useful software
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- Preparation: taggers, tokenizers, parsers
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- Searching
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- Preparation: taggers, tokenizers, parsers
- Searching
- Coding
Kinds of useful software

- Preparation: taggers, tokenizers, parsers
- Searching
- Coding
- Transcribing
Taggers/Tokenizers

- AMALGAM: part-of-speech tagger for English, available over the internet
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- ChaSen: tagger, morphological analyzer and tokenizer for Japanese (free download)
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Searching: BNCweb

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- Links up to SARA
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- → demo
Searching: TIGERSearch

- A search engine for searching treebanks
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- Query language is akin to TFS formalisms
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- Query language is akin to TFS formalisms
- Available for free
Coding: Goldsearch

- Software for creating input file for VARBRUL
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- Input:
  - Text file annotated with independent variable values
  - Speaker file indicating variable values for each speaker
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- Output:
  - File suitable for VARBRUL input
  - Speaker variables recorded for each token
  - Any other annotations recorded for each token
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→ demo
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- **Transana**: A tool designed to facilitate transcription and analysis of video data (free)
- **Transcriber**: A tool for segmenting, labeling, and transcribing speech (free)
Basic Programming Tools
Grep (& other unix commands)
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- Generalized regular expression printer
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- Useful for pulling examples out of text files
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- → web-based tutorial
Perl
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- General purpose programming language
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- Interpreted (rather than compiled) language
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Recommended reading:

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Recommended reading:


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Creating & Publishing Corpora
Why

- More value for effort
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- More value for effort
- Comparative studies
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- Comparative studies
- Speech data paired with published ethnographic work particularly interesting
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- More value for effort
- Comparative studies
- Speech data paired with published ethnographic work particularly interesting
- Video data also interesting
How

- Independently
How

- Independently
- Through the LDC
How

- Independently
- Through the LDC
- Through TalkBank (corpora created with TalkBank tools are expected to be contributed to TalkBank)
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- → Human subjects considerations
Human Subjects Considerations
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- Obtain consent (plan ahead!)
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- Preserve anonymity in both speech files and transcripts
Human Subjects Considerations

- Obtain consent (plan ahead!)
- Preserve anonymity in both speech files and transcripts
- Consult committee for the protection of human subjects at your institution
Conclusion
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- How to learn more about those resources
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