The sociocognitive individual: Exemplars, identity and speech production

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Overview

1. Grammar and production/comprehension
2. Individual differences
3. Exemplar Theory
4. Saliency index

Production/ Comprehension

Non Usage-based

Sag and Wasow (2011)

"linguistic knowledge should therefore be characterized as a process-neutral grammar of the language, which can serve as a resource to be consulted by each of the language processing regimes that play a role in on-line linguistic activity."

Usage-based view

- Entails treating production and comprehension as distinct to some degree
- The extent of the difference depends of the difference between production and comprehension patterns in individual
- However, …

Usage-based view

- Tendency within usage-based approaches to **not** distinguish production and comprehension and to refer to a process-neutral entrenchment:

Hoey (2007): "We are, I argue, primed by each encounter so that when we come to use a word (or syllable or combination of words) we characteristically replicate the context in which we had previously encountered it. "

Mukherjee (2005): "from a cognitive point of view, frequency in usage should be regarded as a quantitative synopsis of the degree of entrenchment."

Usage-based view

Schmid (2000) "From-Corpus-to-Cognition Principle: frequency in text instantiates entrenchment in the cognitive system."

Schmid (2010) – more nuanced view

Individual Usage

- The output (patterns of production) for each individual is quite distinct from the patterns of input .

- This holds for highly frequent patterns and not only with respect to idiosyncratic features

White House Press Secretaries

- Mike McCurry 1995-98

- Ari Fleischer 2000-03

- Scott McClelland 2003-06

White House Press Secretaries
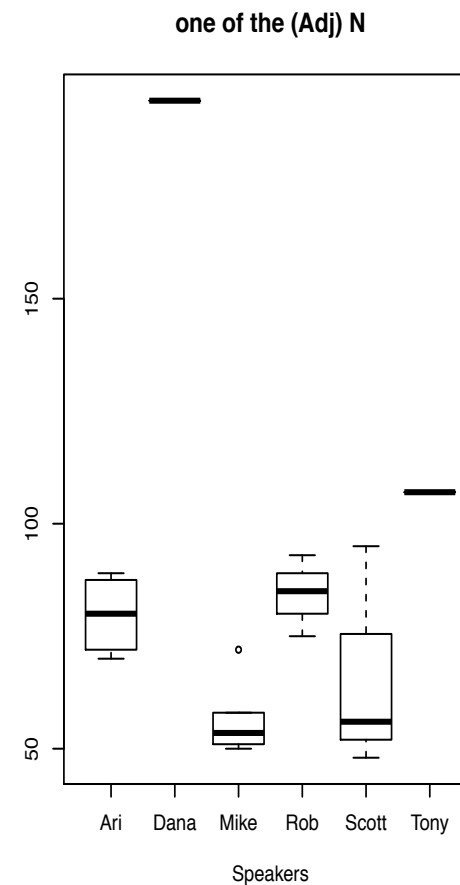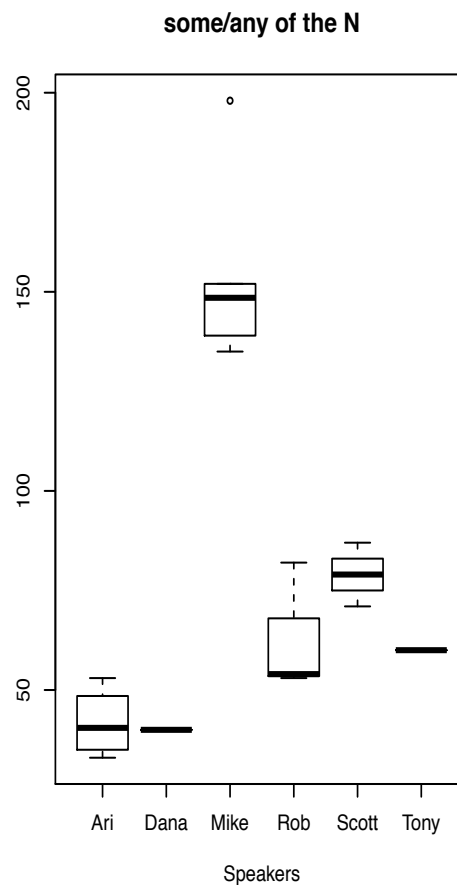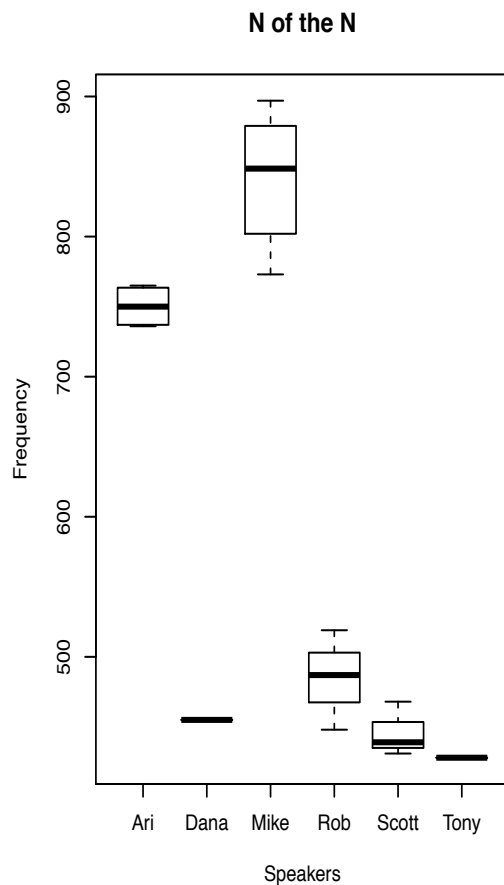

- Tony Snow
  2006-07

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- Dana Perino
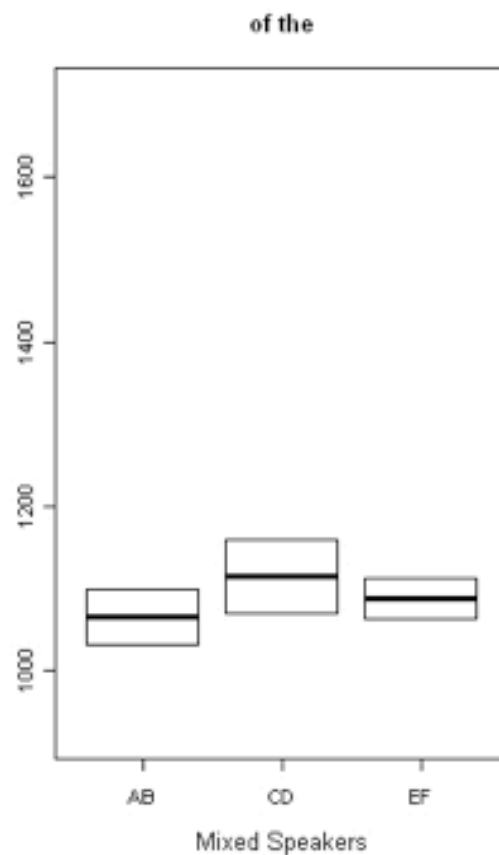 2007-09

Robert Gibbs is pictured. | AP Photo

- Robert Gibbs
  2009-11
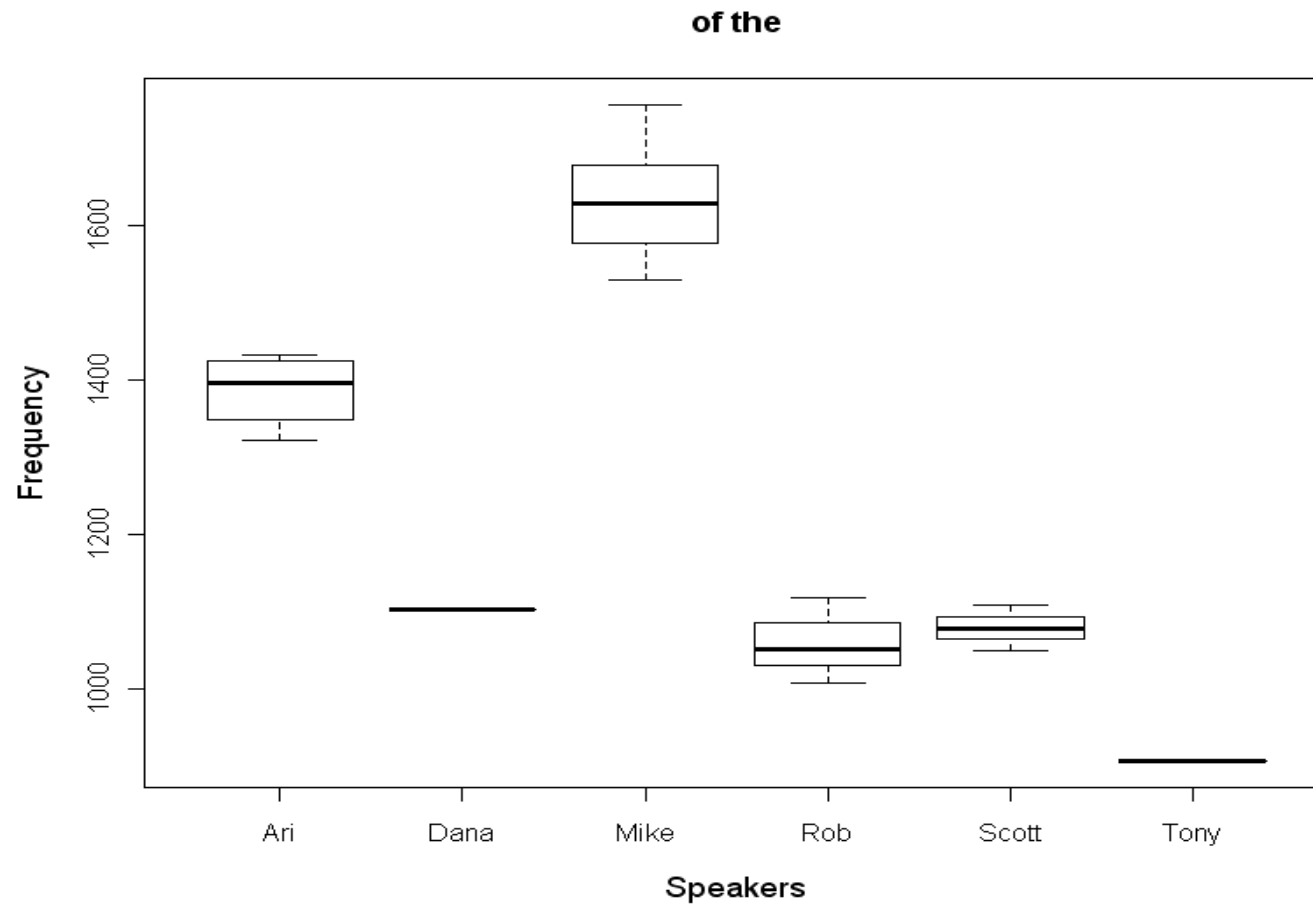
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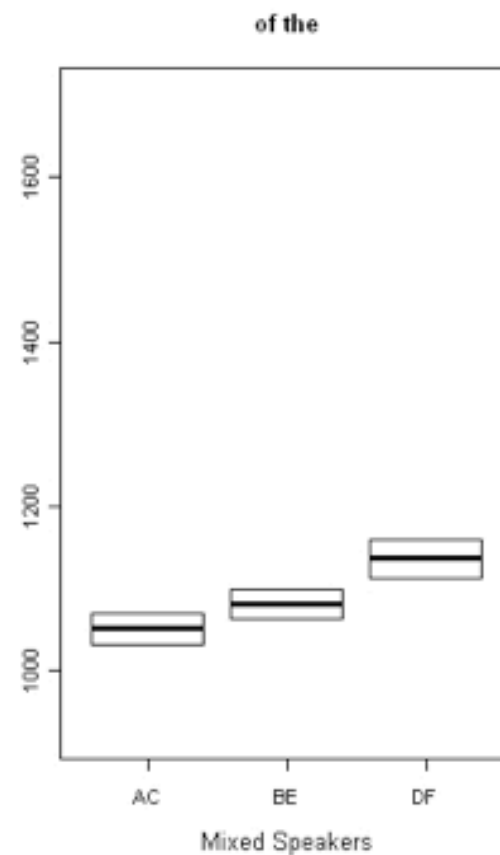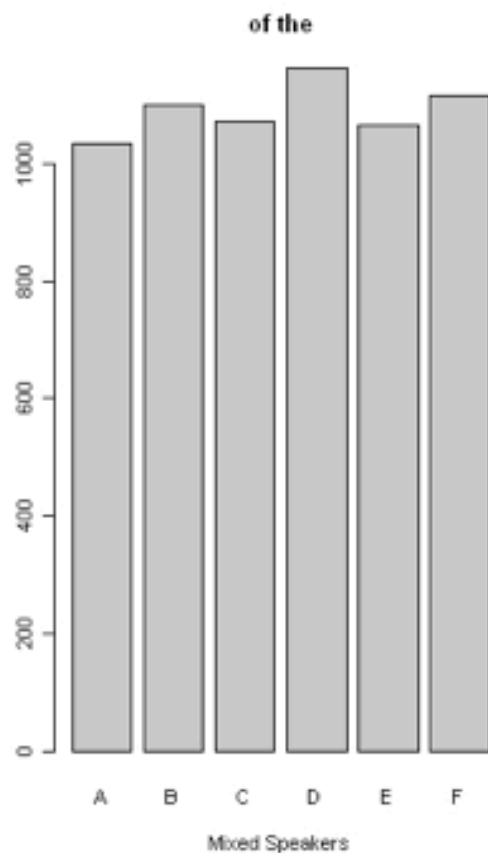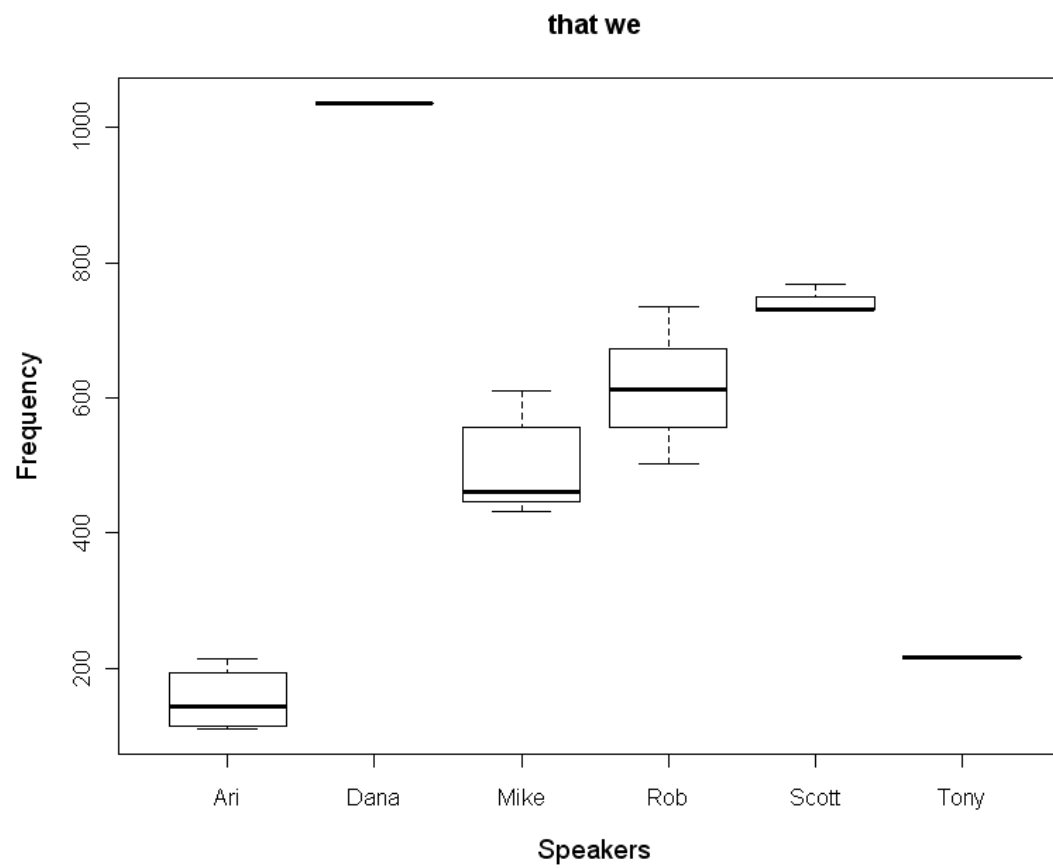
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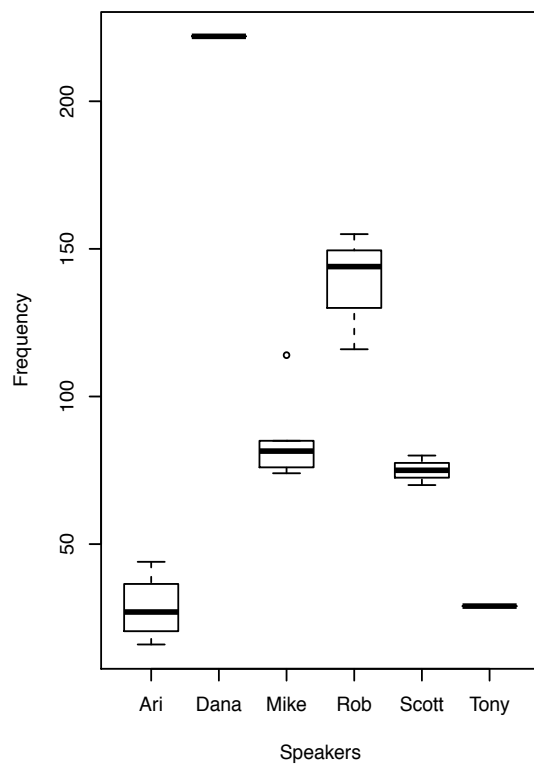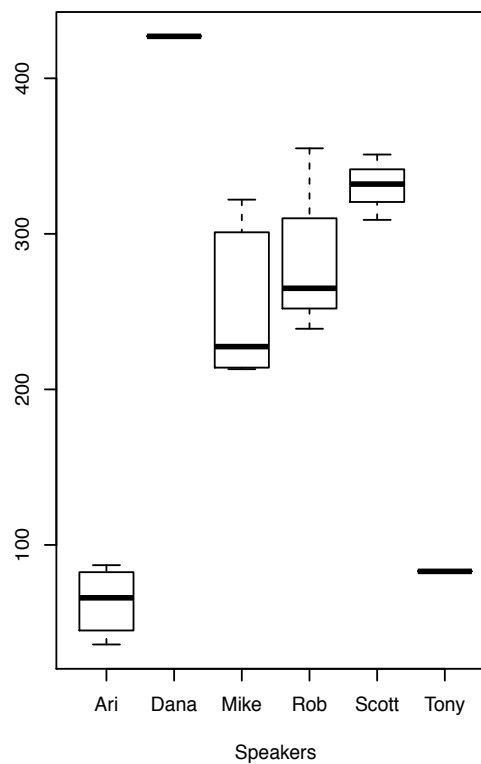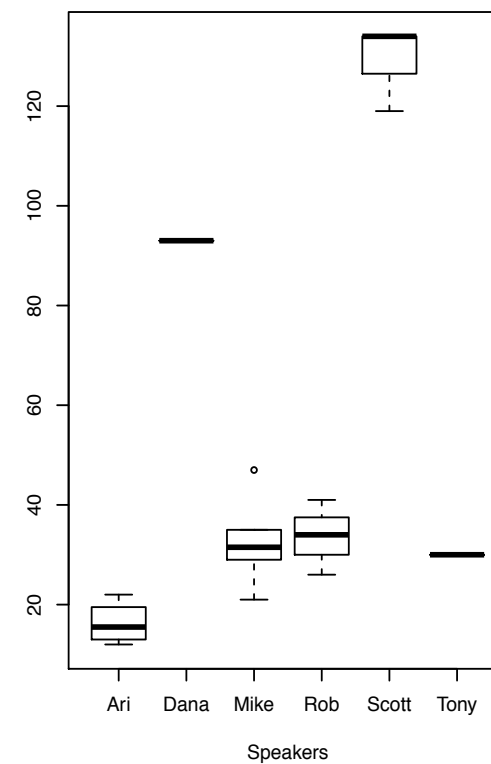
Correspondence analysis based on bigram frequency
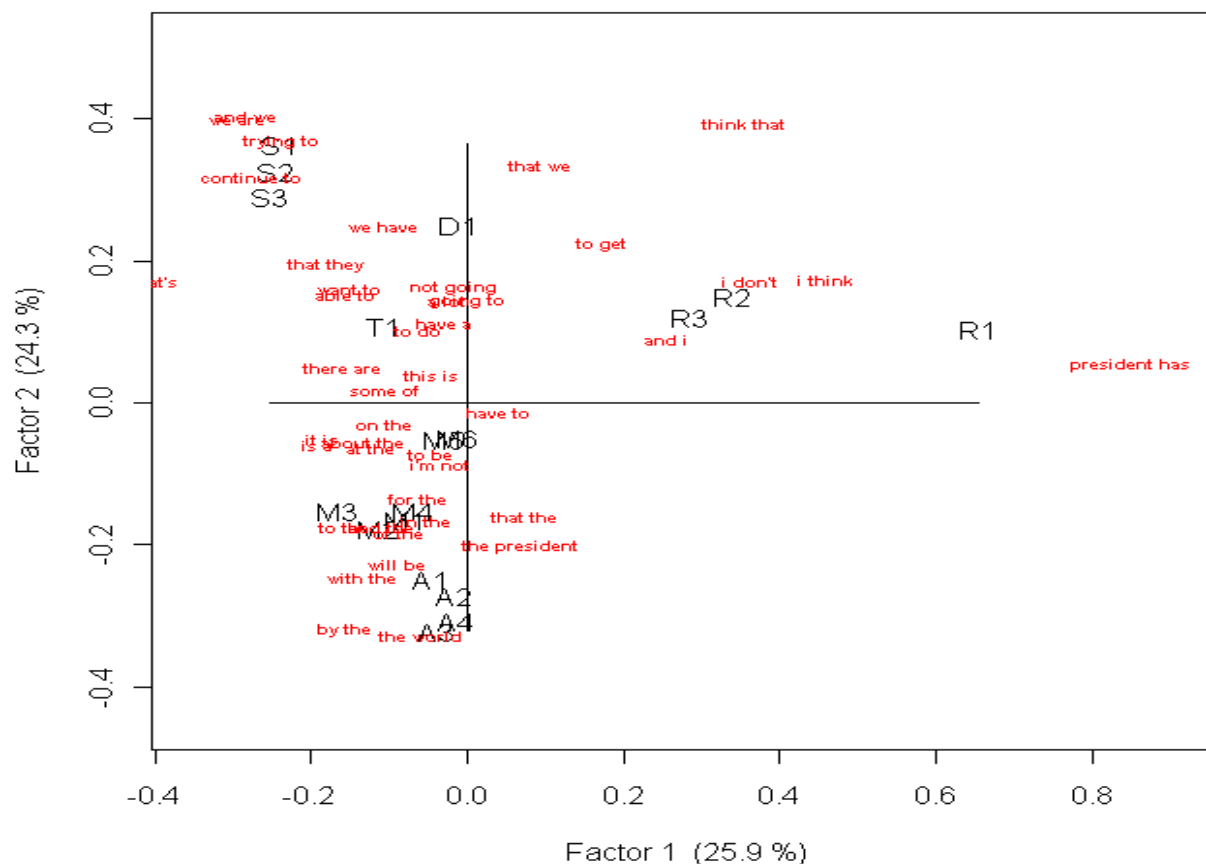
Correspondence analysis based on bigram frequency
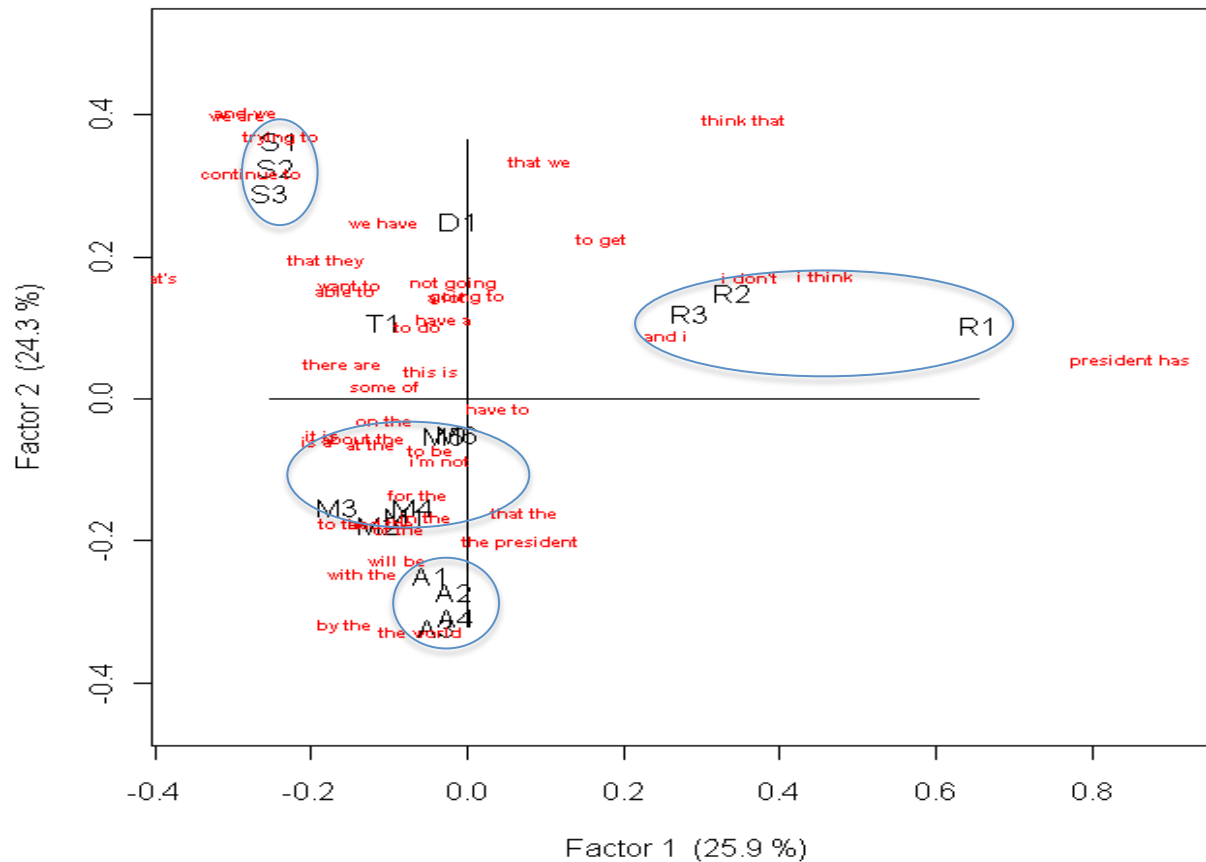
Spoken corpora

- Some have suggested that the individual differences found are due somehow to the characteristics of Press Secretaries and the demands of press conferences

- Finding large individual samples from other corpora can be difficult

Individual differences (based on bigrams) Meetings corpus
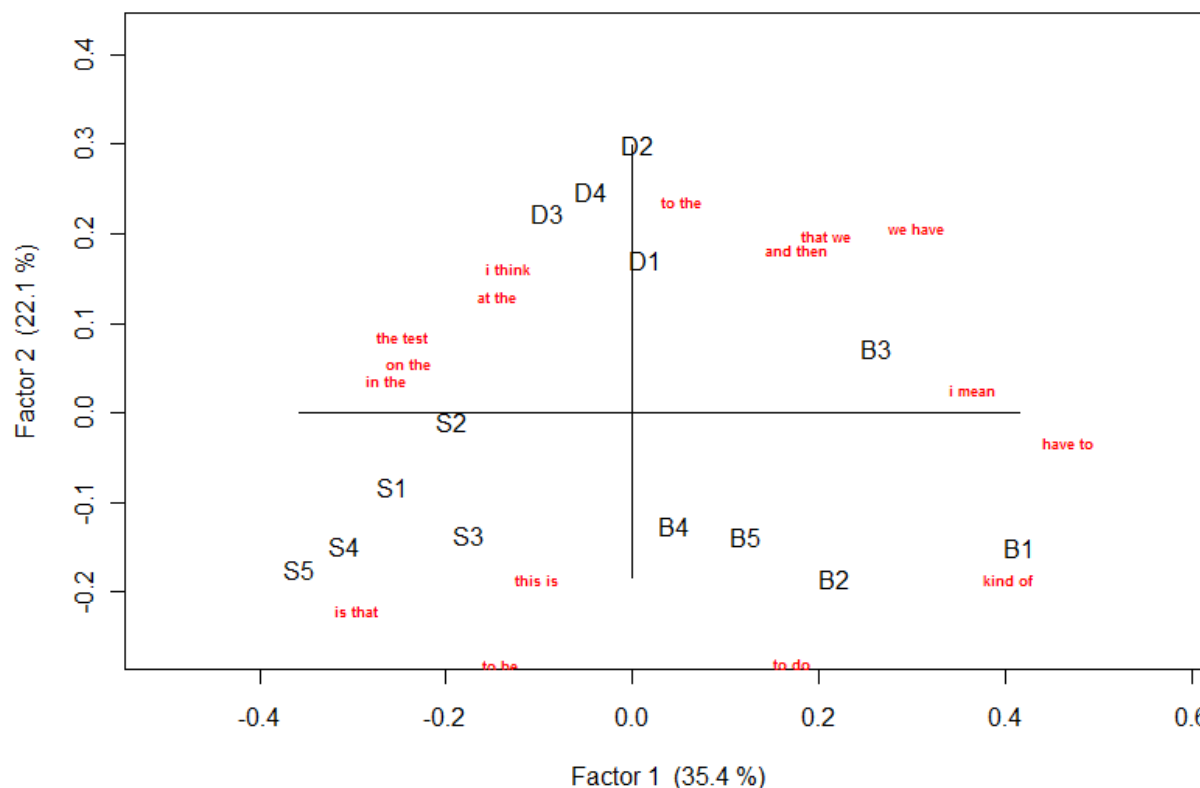
Individual differences
Counselling corpus
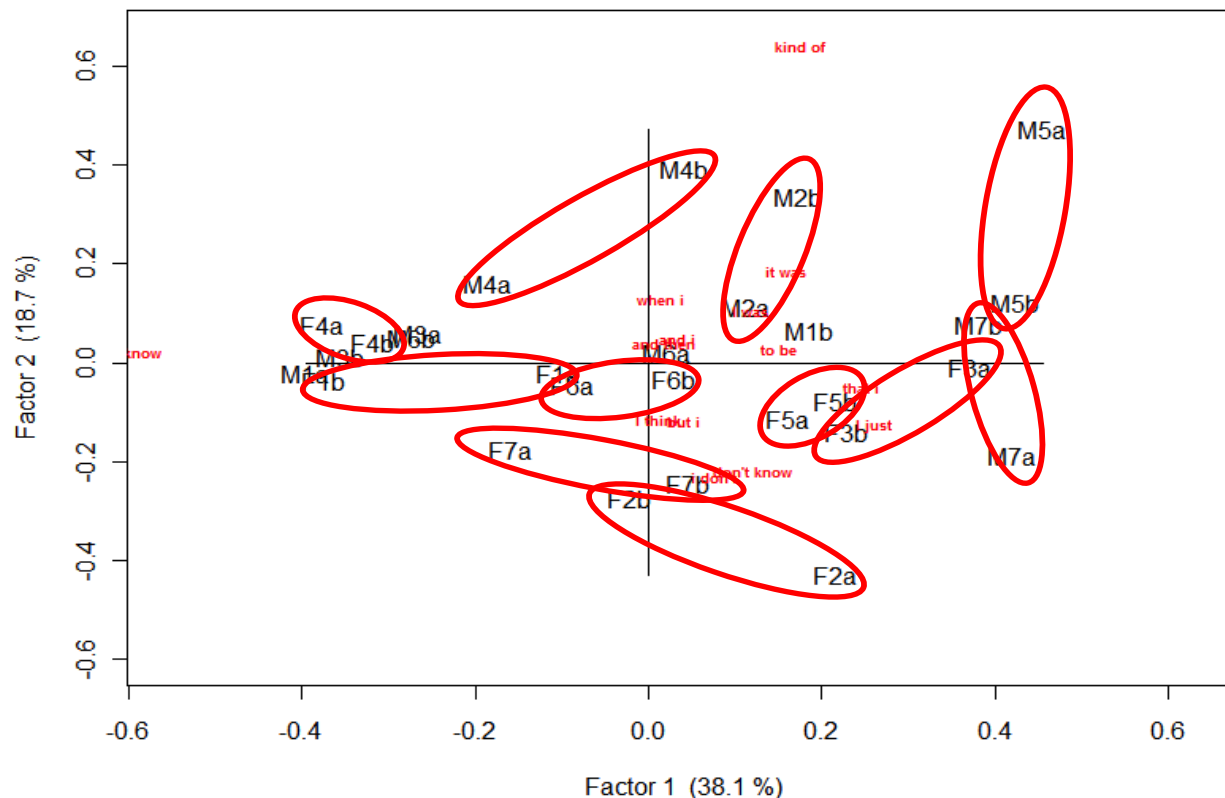
Exemplar theory

- Processing of instances of language, from individual phones to sequences of words, lead to memory traces that are analysed and stored

- These traces, seen as data clouds, constitute the categories of grammar.

- Versions of exemplar theory have been proposed for phonetic, lexical and syntactic units (Pierrehumbert 2001, Bybee 2006)

Exemplar theory

Each category is represented by a "cloud" of remembered exemplars.

Diagram from Pierrehumbert 2003

Dialogue
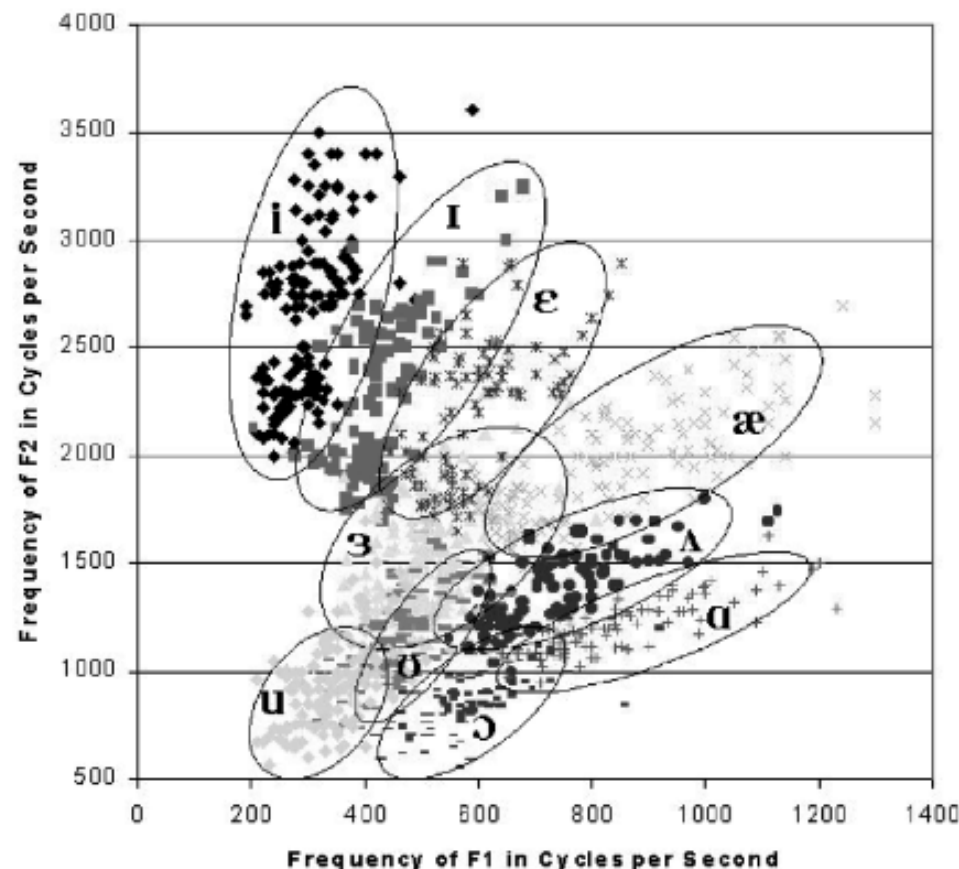
John: But you don't -- you do or do not concede that Prime Minister Netanyahu wishes the U.S. would be more public about the red line?

Spokesperson: I don't. I don't want to characterize Prime Minister Netanyahu's position on this or other issues.

Exemplar theory

·social index

"individual exemplars are not only phonetically rich, but are also indexed with a variety of social information (the identity of the individual, their gender, regional origin, approximate age, what they are wearing, their hairstyle ..., anything that could be perceived as sociolinguistically or sociologically relevant)"

Hay & Bresnan 2006

Taking this sort of social perspective, we could posit a saliency index in which speakers are indexing their own productions

Saliency Index

Exemplar saliency index

$$
\begin{bmatrix}
interlocutor(s) & \begin{bmatrix} name & John \\ gender & male \\ role & reporter \\ demeanour & hostile \\ \ldots & \ldots \end{bmatrix} \\
speaker & \begin{bmatrix} SELF\ (I/me) \end{bmatrix} \\
identity & \begin{bmatrix} spokesperson \\ insider \\ expert \\ \ldots \end{bmatrix} \\
purpose & \begin{bmatrix} deflect\ criticism \\ maintain\ status \end{bmatrix} \\
setting & \begin{bmatrix} White\ House\ briefing\ room \end{bmatrix} \\
\ldots
\end{bmatrix}
$$

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\ldots &
\end{bmatrix}
$$

Contextual information

Saliency Index

Exemplars based on the speaker's production in context

Contextual information

Exemplar saliency index

$$\begin{bmatrix} interlocutor(s) & \begin{bmatrix} name & John \\ gender & male \\ role & reporter \\ demeanour & hostile \\ \ldots & \ldots \end{bmatrix} \\ speaker & \begin{bmatrix} SELF\ (I/me) \end{bmatrix} \\ identity & \begin{bmatrix} spokesperson \\ insider \\ expert \\ \ldots \end{bmatrix} \\ purpose & \begin{bmatrix} deflect\ criticism \\ maintain\ status \end{bmatrix} \\ setting & \begin{bmatrix} White\ House\ briefing\ room \end{bmatrix} \\ \ldots & \end{bmatrix}$$

Conclusion

- Individuals have distinctive patterns of production in core grammar

- Need to consider "usage events" with respect to production and comprehension and have a more nuanced view of usage-based grammar

- Suggested that exemplars produced by the speaker are identified or tracked separately from the productions of interlocutors

BNC 64: 16 selected speakers - epistemics