Two case studies on the non-local conditioning of variation

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Overview

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Dissimilarity of variable processes to categorical rules ⟶ variation outside the grammar

Inherent variability & variable rules

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variable rules

> "enlargement of the concept 'rule of grammar'"
>
> Labov (1969:737)

Guy and Boberg and the OCP

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Their motivation:

conditions on variable *t/d*-deletion resemble the effects of the Obligatory Contour Principle

deletion rate: /n**t**/ > /s**t**/ = /p**t**/ > /f**t**/ > /l**t**/

phonological similarity to /t/

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> (Guy 1997:134)

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> It is likely that many conditions on categorical processes would have “separate but equal performance twin[s]” in this way.
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> (Guy 1997:134)
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> This would result in “considerable duplication of formal machinery.” (Coetzee & Pater 2011:406)

Variation in phonological theory

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"variation… now occupies a central place in the study of phonology, and to some extent dictates the architecture of phonological grammar" (Coetzee & Kawahara 2012)

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- Subject length effects

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They consider the role of frequency; we pursue two other cases of extragrammatical variability:

- Subject length effects
- Persistence effects

Auxiliary contraction

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is

Yeah, **Salzburg's** nice. **Austria's** nice.
Europe is nice! (sw_1151)

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Yeah, **Salzburg's** nice. **Austria's** nice. **Europe is** nice! (sw_1151)

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Oh, I'm sure **it's** been done. I'm sure **it has** been done. (sw_1060)

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  - Sociolinguistic interviews carried out by Penn Linguistics students

Subject length

coded in orthographic words

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Salzburg's nice 1

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Salzburg's nice	1
The real estate out here's been pretty good	4

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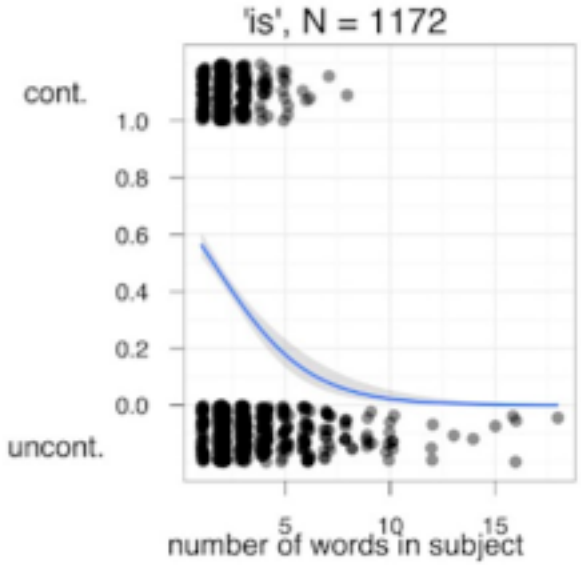
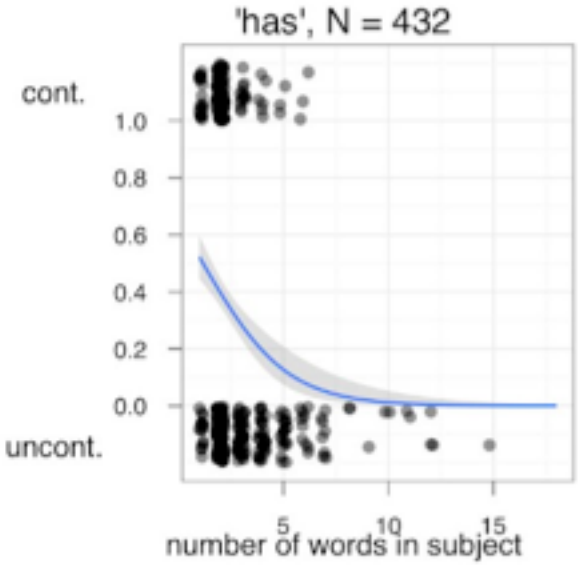
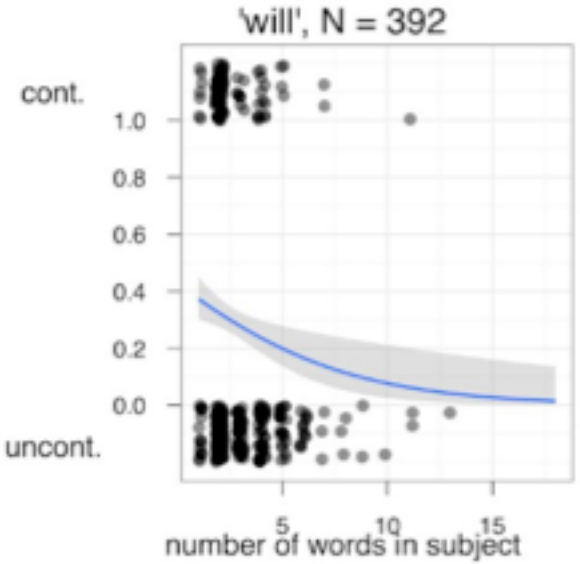
Salzburg's nice	1
The real estate out here's been pretty good	4
About the only thing I can do mechanically with a, a car is put gas in it	12

Subject length effect







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But, **subject length is different:**

- "Grammars can't count": categorical alternations don't make reference to quantities larger than 2 (Selkirk 1986)
- Yet auxiliary realization appears to be sensitive to precise subject word count

Persistence

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Variable (A) with two variants /X/ and /Y/:

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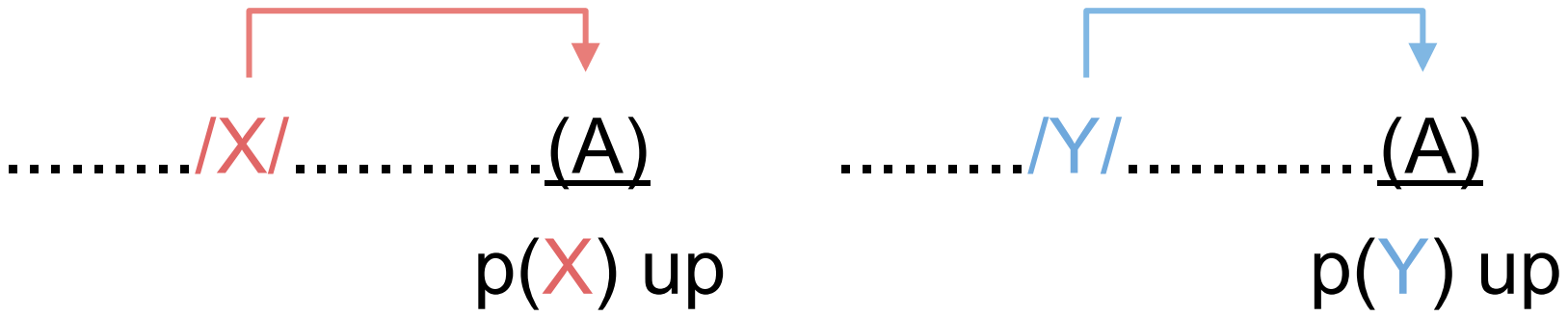

Variables

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DH: alternation between fricative /ð/ and stop /d/ word-initially (*this/dis*)

Data source: 42 speakers from the PNC

Coding

Each token coded for value of previous token

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Distance from previous token measured in seconds and log-transformed

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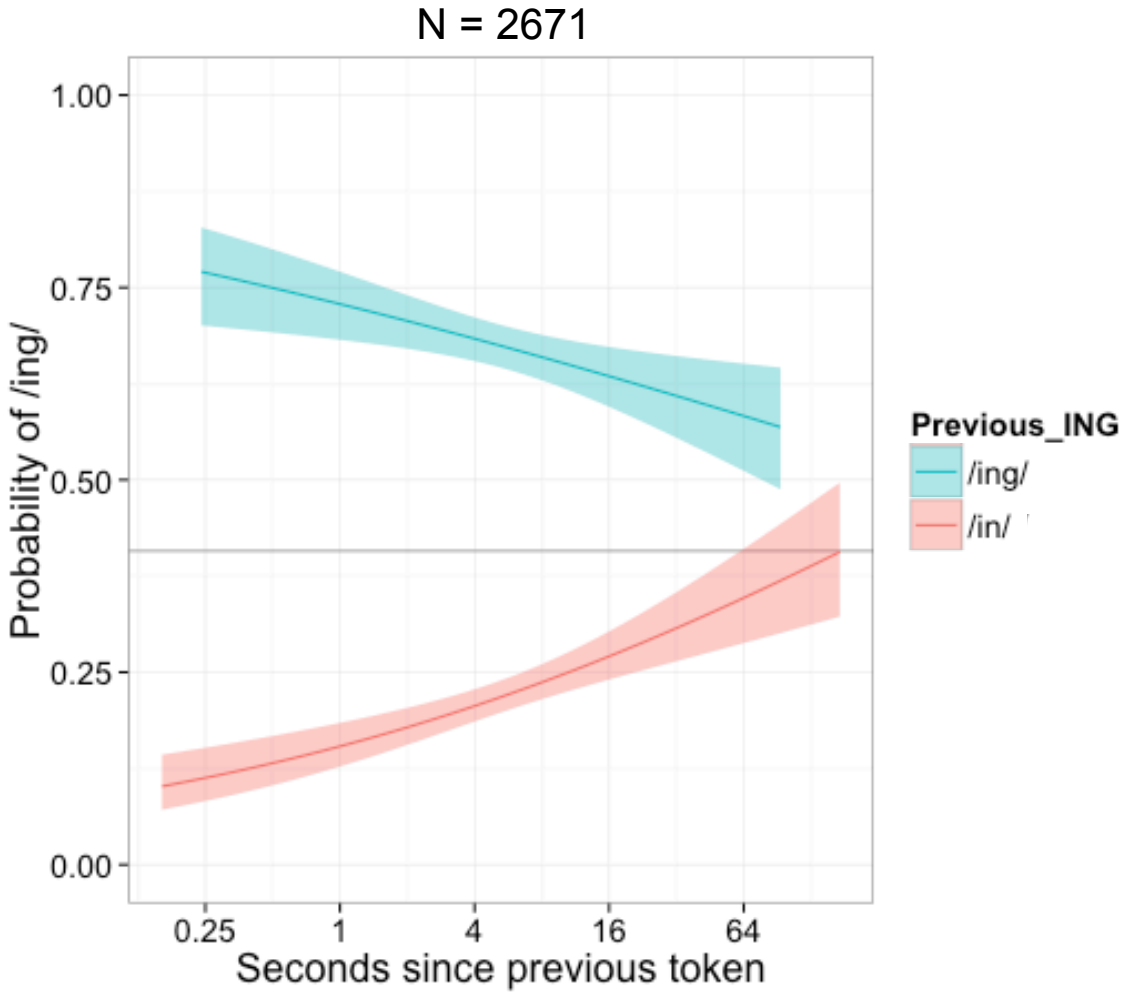
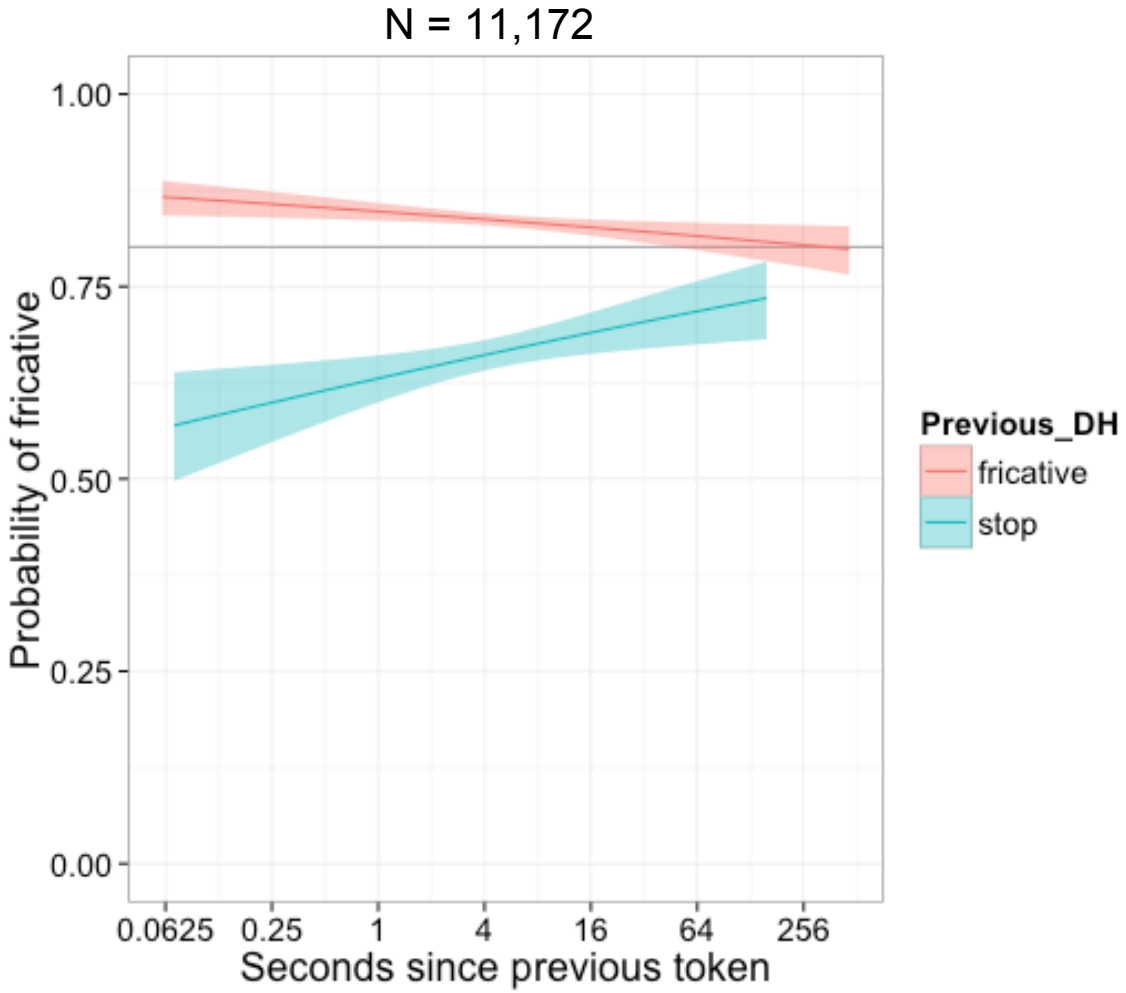
Distance from previous token measured in seconds and log-transformed

Previous tokens not coded across interruption by interlocuter

Persistence effect on ING



Persistence effect on DH



Persistence effect: implications

Like contraction, ING and DH conditioned by linguistic factors in ways that look like categorical rules

e.g. **following segment**

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But again, **persistence is different:**

- Conditions on allomorphy and phonological rules are locally-constrained (Embick 2010)
- Highly non-local; in effect for over a minute

Extragrammatical variation

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Persistence effect would require grammar to have a memory

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Would need to constrain grammar to **not** allow such effects to operate on categorical processes if they were represented grammar-internally

Modeling variation

1 Grammar

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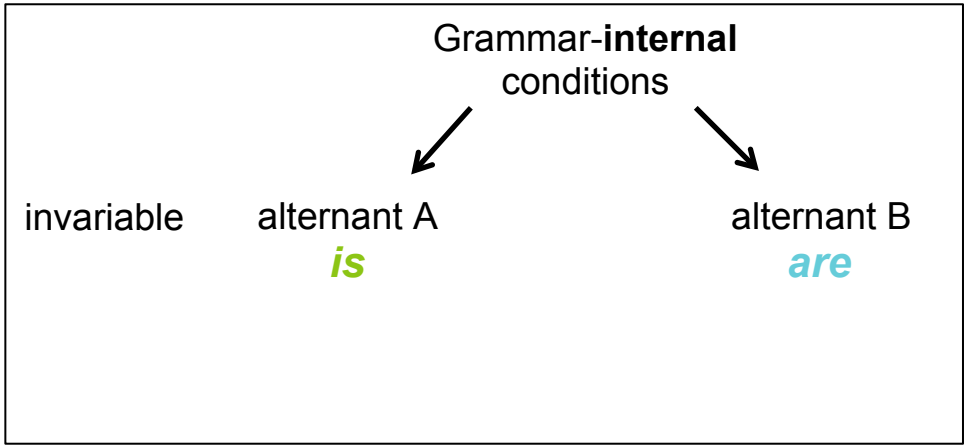

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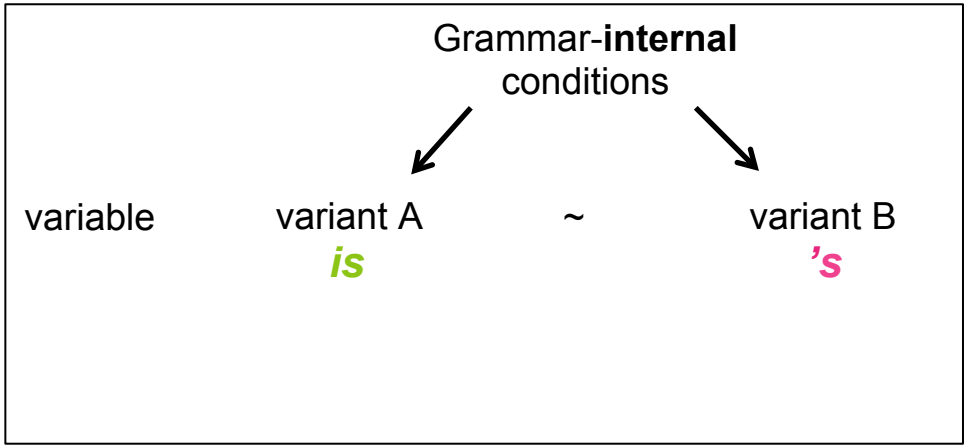

Modeling variation

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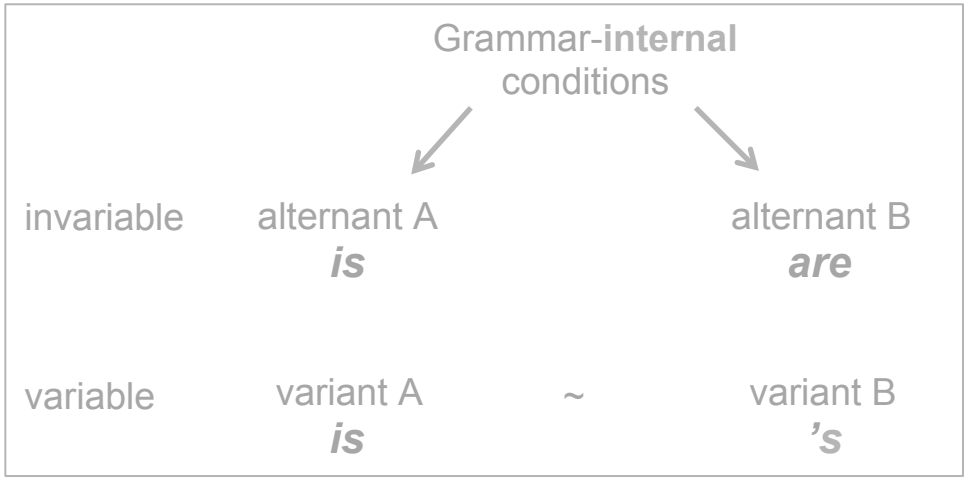

2 **Use**

Modeling variation

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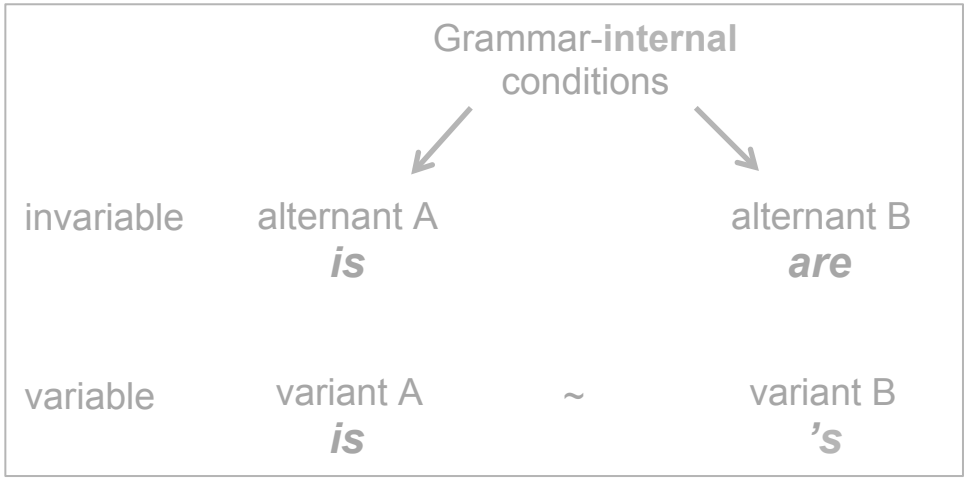

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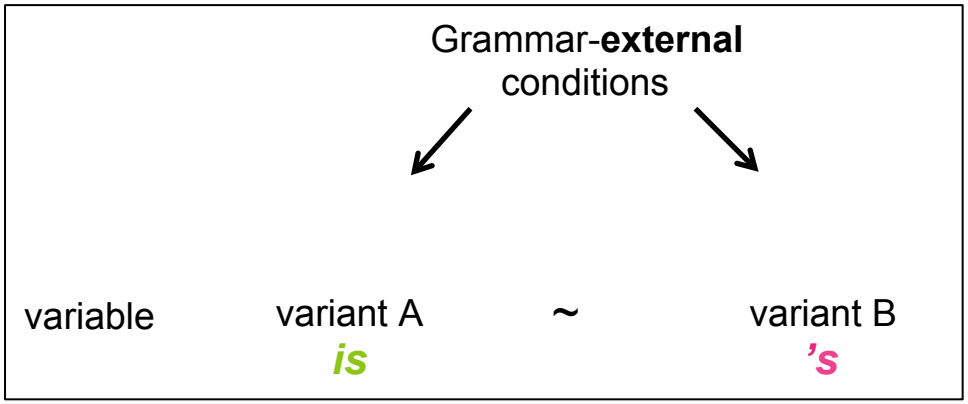

Conclusion

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Sociolinguistic models should distinguish between different types of variability.

Thank you!

Previous work

Demonstrated for many variables, but...

/s/-deletion, pro-drop:

tokens linked in grammar and discourse

Syntactic persistence:

debate over construct of “variable” in syntax

Variables here (ING, DH) never change referential meaning, each instance independent

Coding

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dependent variable

Coding

dependent variable

contracted

uncontracted

Coding

dependent variable

	contracted	uncontracted
is	[z], [s]	[ɪz], [əz]

(MacKenzie 2012)

Coding

dependent variable

	contracted	uncontracted
is	[z], [s]	[ɪz], [əz]
has	[z], [s]	[hæz], [həz], [əz]

(MacKenzie 2012)

Coding

dependent variable

	contracted	uncontracted
is	[z], [s]	[ɪz], [əz]
has	[z], [s]	[hæz], [həz], [əz]
will	[əl]	[wɪl], [wəl]

(MacKenzie 2012)