

# English auxiliary contraction and the locus of variability

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LAGB Annual Meeting 2013

30 August 2013

# Research question

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How is variation represented in speakers' linguistic systems?

# The point of this talk

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- Previous researchers' grammatical models have been informed by 'shared' conditions between categorical and variable alternations
- Less attention has been paid to cases where a condition on one type of alternation is **not** shared by the other
- **But that must inform theory as well**

# Outline

- Case study: variable auxiliary contraction in English

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- **Conditioning factor: subject length**



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- Conditioning factor: subject length
- Theoretical background: shared conditions on categorical & variable alternations
- **Novel contribution: accounting for ‘un-shared’ conditions on variation**

# Auxiliary contraction

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*is*

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**  
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If I walk, **it'll** be ten degrees warmer, but **it**  
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  - Sociolinguistic interviews carried out by Penn Linguistics students

# The dependent variable

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Underlyingly: a bipartite allomorphic alternation

(MacKenzie 2013)

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Underlyingly: a bipartite allomorphic alternation

*is*                      /ɪz/        ~        /z/

(MacKenzie 2013)

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Underlyingly: a bipartite allomorphic alternation

*is*                    /ɪz/        ~        /z/

*has*                    /hæz/        ~        /z/

(MacKenzie 2013)



# The dependent variable

Underlyingly: a bipartite allomorphic alternation

*is*                    /ɪz/        ~        /z/

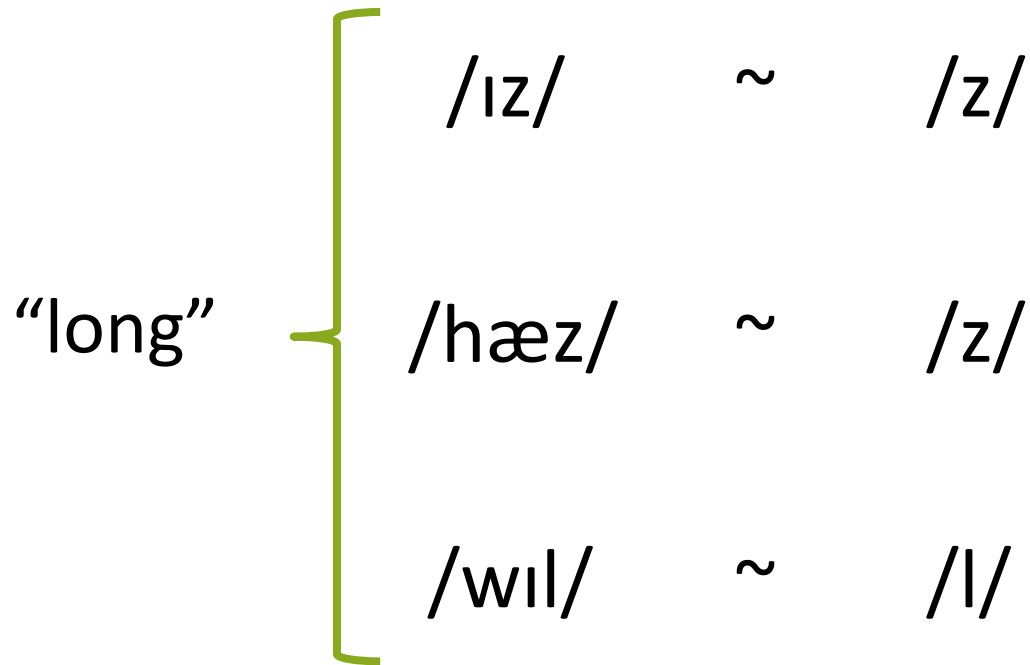
*has*                    /hæz/        ~        /z/

*will*                    /wɪl/        ~        /l/

(MacKenzie 2013)

# The dependent variable

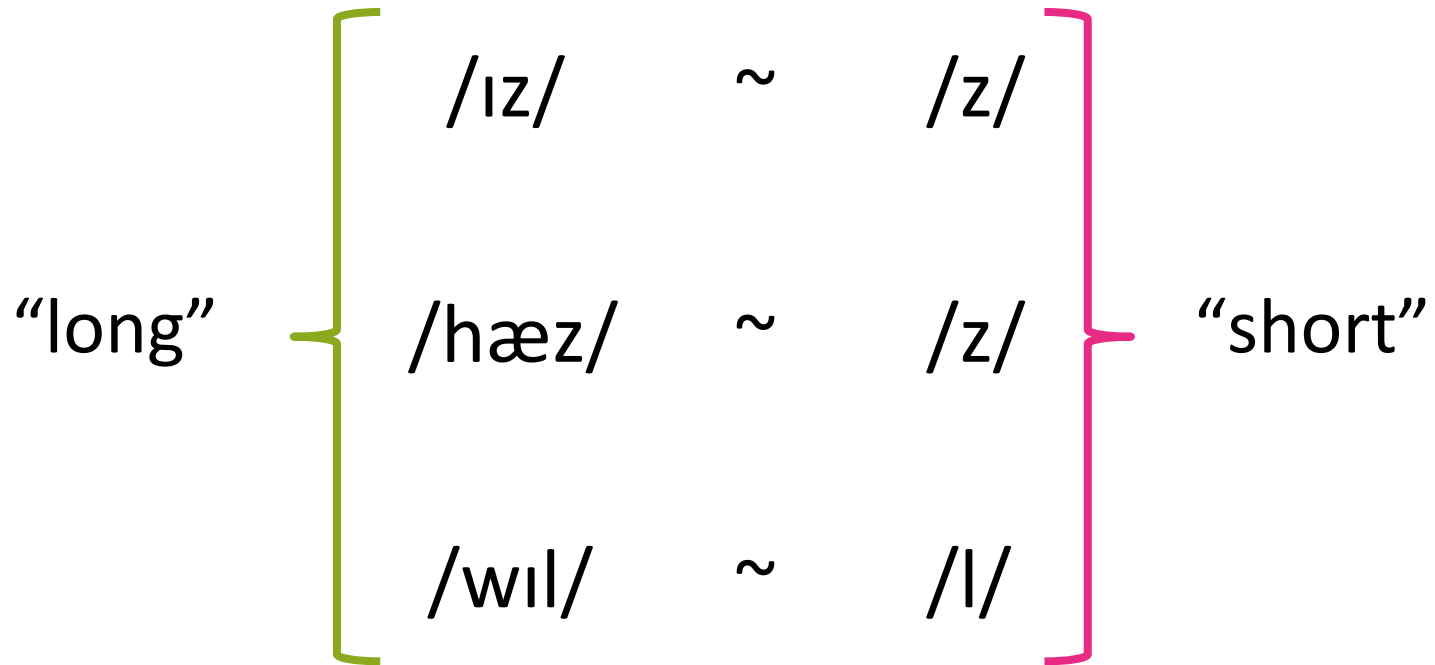
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Underlyingly: a bipartite allomorphic alternation



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On the surface: numerous phonological shapes

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On the surface: numerous phonological shapes

*is*

*has*

*will*

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On the surface: numerous phonological shapes

*is*            [ɪz]

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On the surface: numerous phonological shapes

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(MacKenzie 2013)



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On the surface: numerous phonological shapes

*is*                    [ɪz]                    [əz]                    [s], [z]

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(MacKenzie 2013)

# The dependent variable

Surface forms can be reclassified:

*is*                    [ɪz]                    [əz]                    [s], [z]

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(MacKenzie 2013)

# The dependent variable

Surface forms can be reclassified:

## Underlying long

*is*

[ɪz]

[əz]

[s], [z]

*has*

[hæz]

[həz]

[əz]

[s], [z]

*will*

[wɪl]

[wəl]

[əl]

[l]

(MacKenzie 2013)

# The dependent variable

Surface forms can be reclassified:

	<u>Underlying long</u>	<u>Underlying short</u>
<i>is</i>	[ɪz]    [əz]	[s], [z]
<i>has</i>	[hæz]    [həz]	[zə]    [s], [z]
<i>will</i>	[wɪl]    [wəl]	[əl]    [l]

(MacKenzie 2013)

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**Salzburg's nice** 1

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**The real estate out here's been pretty good**  
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# Subject length

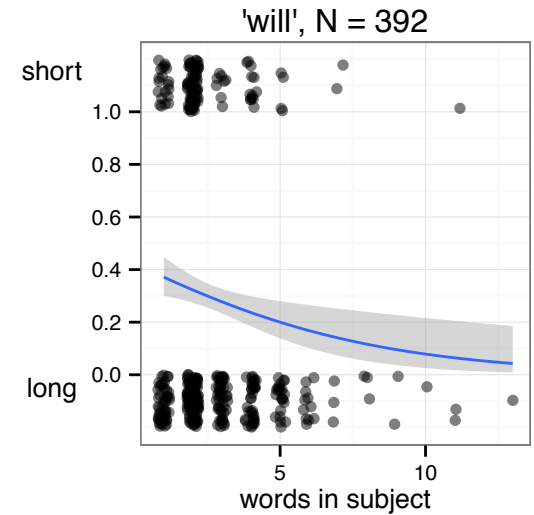
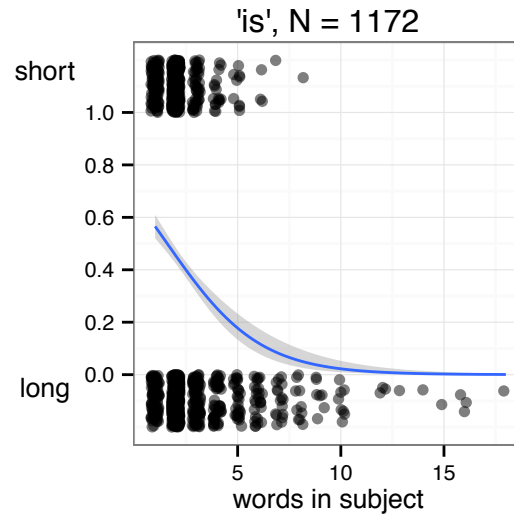
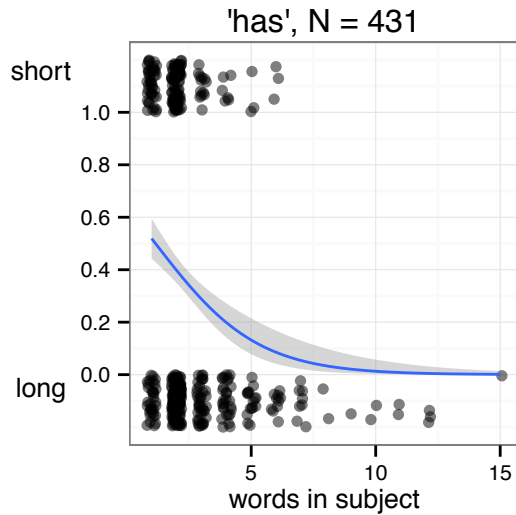
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Salzburg's nice 1

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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# Inherent variability & variable rules

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## **inherent variability**

“the hypothesis that the human language faculty necessarily accommodates and generates variation, and that the workings of grammar have a quantitative, noncategorical, and nondeterministic component”

Guy & Boberg (1997:149), paraphrasing WLH

# Inherent variability & variable rules

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## **variable rules**

“enlargement of the concept ‘rule of grammar’”

Labov (1969:737)

# Guy & Boberg and the OCP



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Guy & Boberg's proposal:

“a unified probabilistic grammar that accounts for both” categorical and probabilistic alternations

(p. 150)

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(p. 150)

Their motivation:

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

deletion rate: /nt/ > /st/ = /pt/ > /ft/ > /lt/

phonological similarity to /t/

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(Guy 1997:134)

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Separating variation from grammar would necessitate two separate versions of the OCP. It is likely that many conditions on categorical processes would have “separate but equal performance twin[s]” in this way.

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This would result in “considerable duplication of formal machinery.” (Coetzee & Pater 2011:406)

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- e.g. **preceding segment**: compare Korean allomorphy

But, **subject length is different**:

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

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- If this effect were localised in the grammar, we would need to constrain grammar to **not** allow it to operate on categorical processes.

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**But, subject length is different:**

- If this effect were localised in the grammar, we would need to constrain grammar to **not** allow it to operate on categorical processes.
- Alternatively: attribute it to some other system.

# Production planning

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Ferreira (1991)



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The man who started the band

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The man who started the band pleased the very impatient crowd.

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The man who started the band pleased the very impatient crowd.

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Ferreira (1991)

The man who started the band pleased the very impatient crowd.

The man who started the band is taking a bow.

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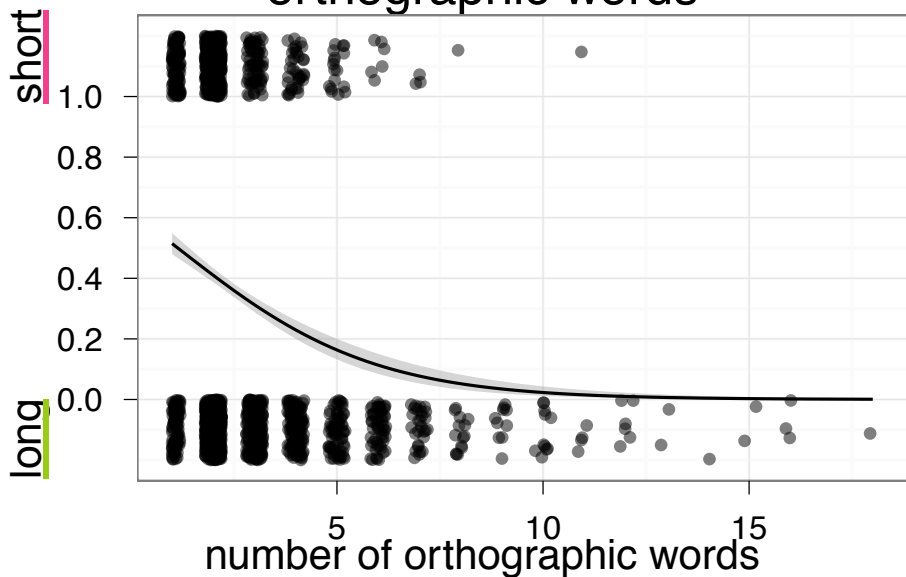
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  - Number of prosodic words, function words  
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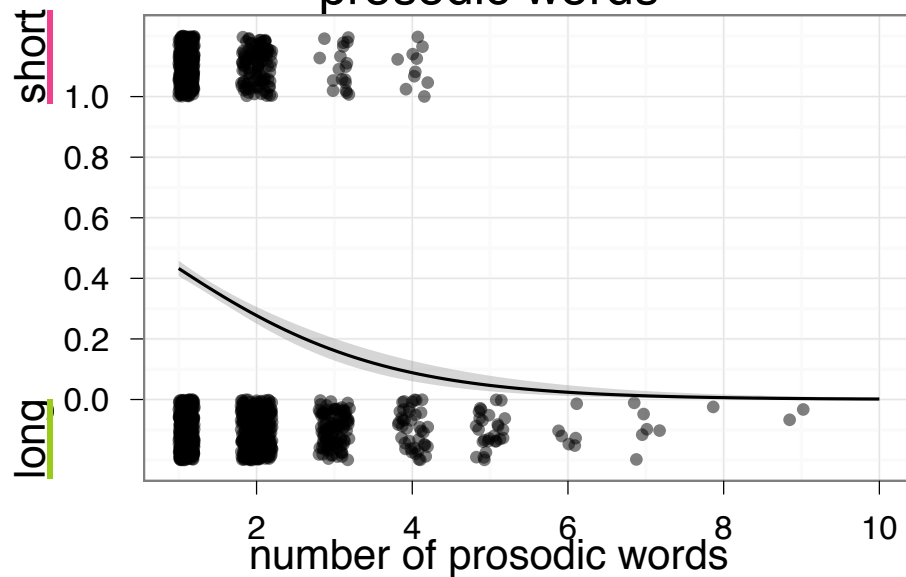
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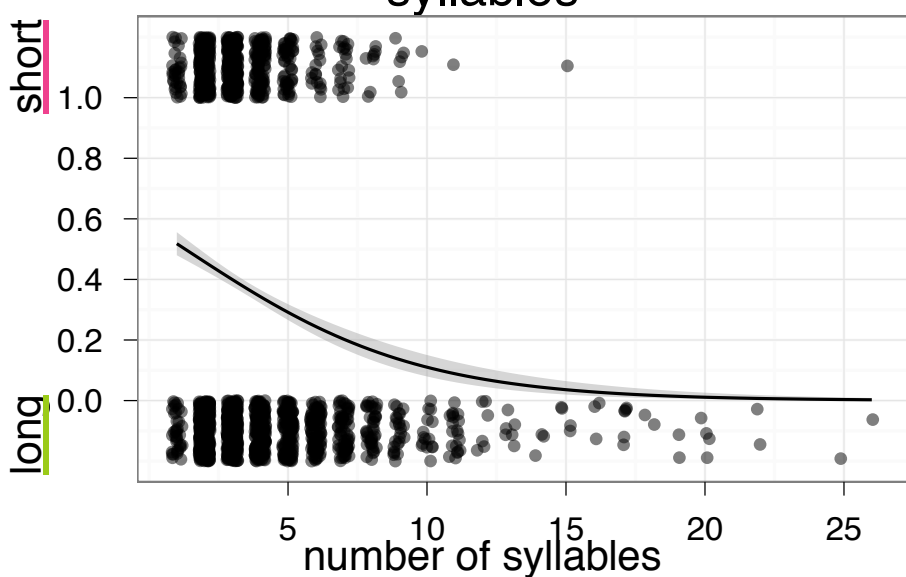
orthographic words



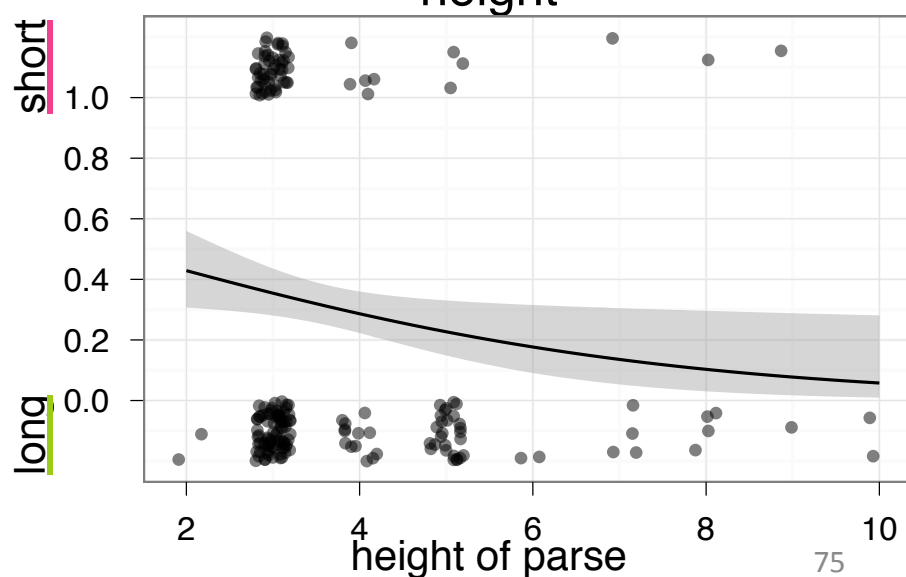
prosodic words



syllables



height



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# Extensions: planning & variation

While the man was reading a/the  
book, the glass fell off the table.

(Wagner 2011:160)

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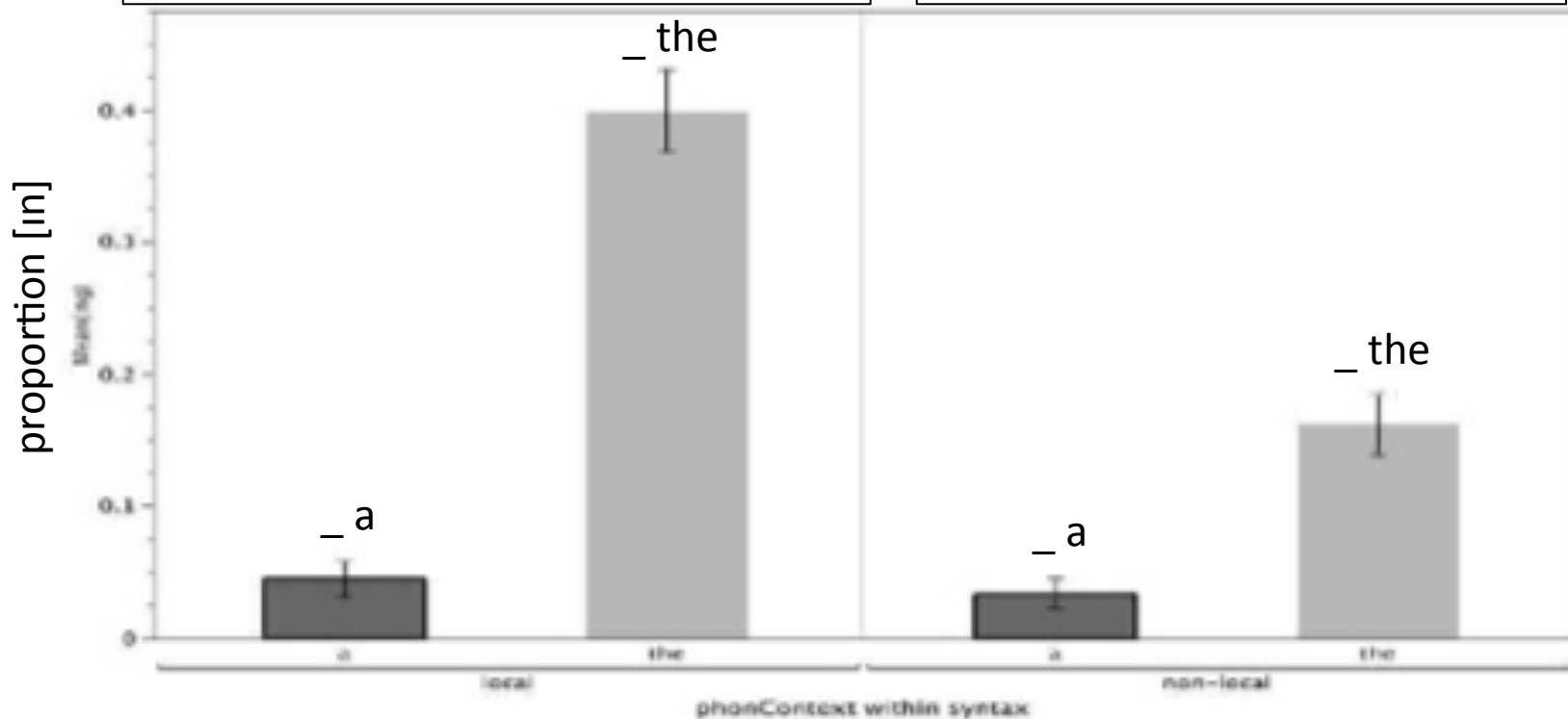
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*Japanése géckos*

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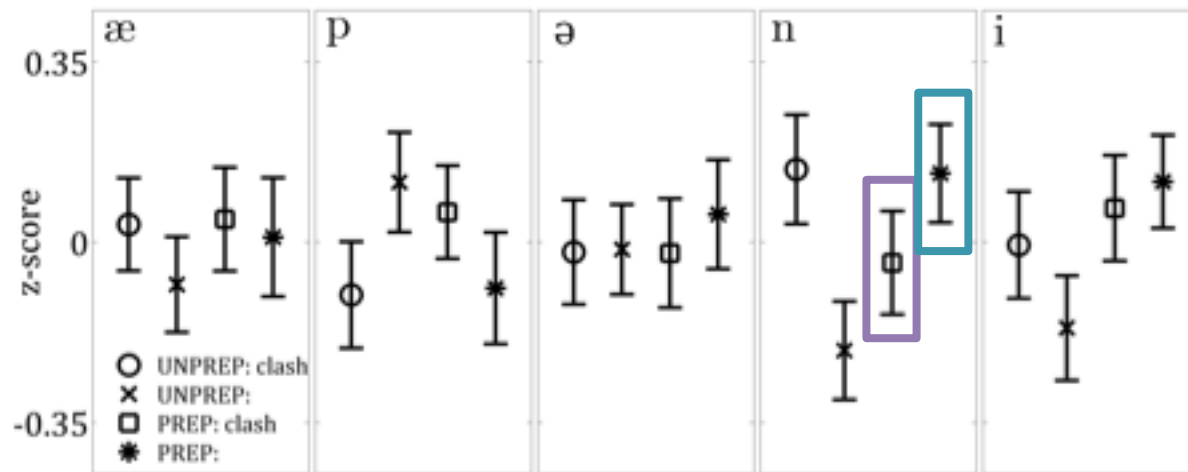
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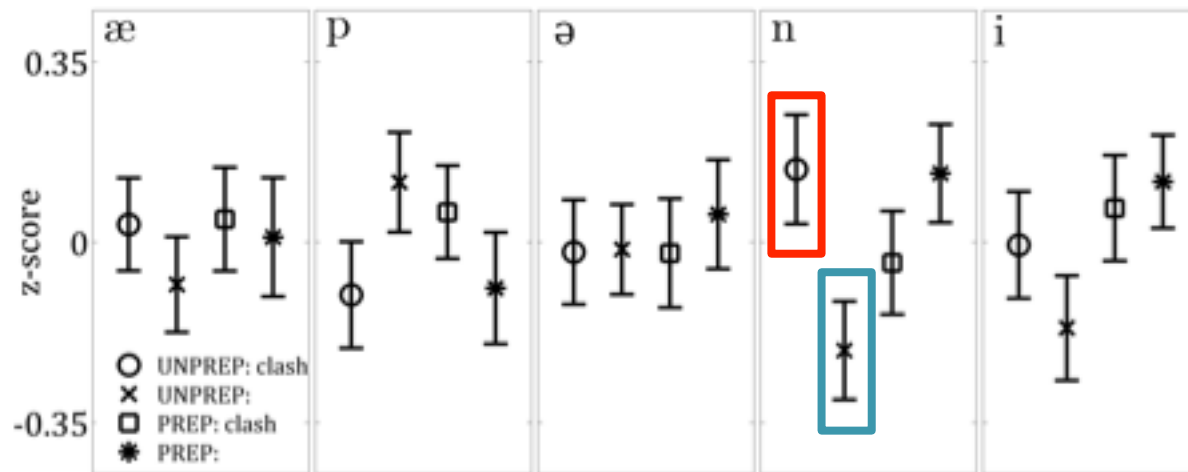
*Japanése gazélles* vs. *Japanése géckos*  
*Japanese géckos*



(Tilsen 2012)

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*Japanése gazélles* vs. *Japanése géckos*



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# Future work

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- **Other rightward-conditioned variable phenomena**



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*that he* → *that* [i] → *tha*[r] [i]

# Theoretical connections

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- Diachrony: Will grammar-external variation fail to go to completion? (Wallenberg 2013)

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- Linguistic variation may be conditioned by factors both internal and external to the grammar
- Surface probabilities may reflect variation stemming from these multiple sources
- **Linguistic theory must take these multiple loci into account in analysis and model-building**



# Thank you!

Constantine Lignos, Meredith Tamminga  
(Collaborators)

Dave Embick, Bill Labov, Gillian Sankoff, Joel  
Wallenberg