

Don't stop believin'? Listeners revise their prior beliefs

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Introduction

'Stop' triggers presuppositions (PSS) of the form 'X used to V', such that in (1), the concrete lexical content *Jessica used to work as a nanny* is triggered:

- (1) Jessica stopped working as a nanny.
PS: *Jessica used to work as a nanny*

Phenomenon: embedded in a question the same content is triggered, see (2):

- (2) Did Jessica stop working as a nanny?
PS: *Jessica used to work as a nanny*

Problem: In those cases, speakers do not always commit to the triggered content, see (3).

- (3) What did you say? Did [JESSICA]_F stop working as a nanny?
PS: *Someone, not necessarily Jessica, used to work as a nanny*

Factors that may influence listeners' assessment of speaker commitment:

- At-issueness: the extent to which content is under debate (Tonhauser, 2016; Tonhauser et al., 2018)
- **World knowledge?** → beliefs that listeners have a priori to processing an utterance

Gender stereotypes

'Nanny' was rated to be female with a probability of 0.8 by AE speakers (Boyce et al., 2018)

Name	Occupation	Consistency
female	nanny	0.8
male	nanny	0.2

Table 1: Consistency btw lexical content and gender stereotypes

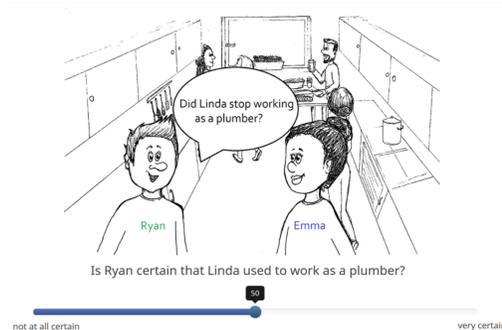
Research Question

Do listeners' prior beliefs about gender stereotypes influence their understanding of what content a speaker presupposes? Do they make a difference btw (4) and (5)?

- (4) Did **Jessica** stop working as a nanny?
(5) Did **Sebastian** stop working as a nanny?

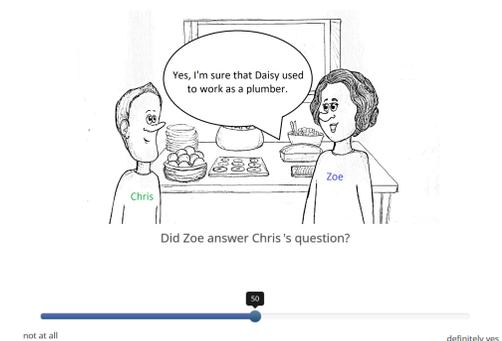
Task

Block 1: Speaker commitment



Block 2: At-issueness

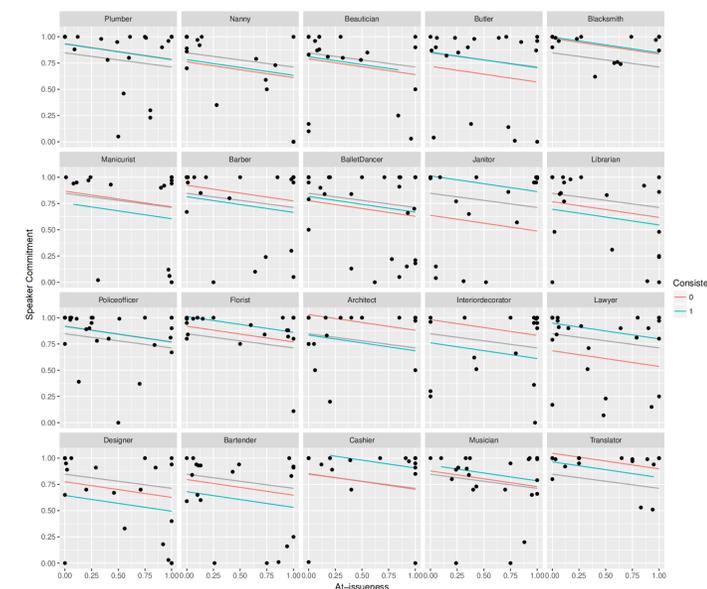
Zoe: Daisy stopped working as a plumber.
Chris: Are you sure?



Analysis

Linear mixed effects model with random by-lexical contents intercepts (R package lme4 (Bates et al., 2015))

	Coefficients	SE	t-value	sig.
Intercept	0.78	0.018	44.591	
At-iss.	-0.137	0.037	-3.707	*
Consist.	0.028	0.088	0.319	-



Results: Prior beliefs

No effect of gender stereotypes on listeners assessing of speaker commitment could be found:

- Findings suggest that listeners revise their prior beliefs when they process utterances that do not correspond to their beliefs (Degen et al., 2015)

Discussion

Other priors/other presupposition triggers?

- (6) Did Lisa discover that Dani flew to Amsterdam?
PS: *Dani flew to Amsterdam*
- (7) Did Martin discover that Alex flew to the moon?
PS: *Alex flew to the moon*

Do listeners more likely take the speaker to be committed to the triggered content in (6) than in (7), since the latter is very unlikely?

Preliminary findings: **no effect of prior beliefs**

References

Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, 67(1), 1–48.

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Degen, J., Tessler, H., & Goodman, N. D. (2015). Wonky worlds: Listeners revise world knowledge when utterances are odd.

Tonhauser, J. (2016). Prosodic cues to presupposition projection. *Semantics and Linguistic Theory XXVI*, 934–960.

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Hypotheses

- 1 The higher the consistency of content → listeners more likely understand that content is presupposed
- 2 The higher the at-issueness of content → listeners less likely understand that content is presupposed

Method

Materials, Design

- Experimental items:
Did **X** stop working as a **Y**?
X Factor 'Gender', 2 levels (female/male)
Y Factor 'Occupation', 20 levels (nanny, plumber, ...)
(Boyce et al., 2018)

Participants, Procedure

- 437 AE speaker, age: 18-78, 41% female
- 2 blocks, 5 trials per block

Results: At-issueness

Effect of at-issueness could be replicated (Gradient Projection Principle, (Tonhauser et al., 2018)), bootstrapped p-value = 0.0005:

- The more lexical content was found to be addressed by a preceding question, the more the commitment of the speaker towards that content was doubted

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