



Pronoun interpretation in English: Is prosody enough?

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GALA 16
Lisbon
September 2024

Introduction

- Crosslinguistic differences in pronoun interpretation have been much investigated, especially in null subject languages.
- In the L2 context, **null subject** languages have received particular attention, **non-null subject** languages less so.
- Antecedent preferences for pronouns in null subject languages have been shown to be impacted by **prosody**.
- Whether there are prosodic effects on choice of antecedents in L2 acquisition of **non-null subject** languages has not been investigated.
- We examine prosodic effects on pronoun interpretation by L2ers (L1 Italian) and by English native speakers:
 - **stress**
 - **pause**

Pronoun interpretation: Stress in null subject languages

- In **Italian**, there is a contrast between antecedent preferences for null and overt pronouns.
- **Null pronouns** prefer subject antecedents; unstressed **overt pronouns** prefer antecedents elsewhere (Carminati 2002):
 - (1) **Monica**_i ha telefonato a **Claudia**_j quando \emptyset _i/**lei**_j era in ufficio.
'Monica phoned Claudia when (she) was in the office.'
- **Stress** on the pronoun leads to a move away from object antecedents:
 - (2) **Monica**_i ha telefonato a **Claudia** quando **LEI**_i era in ufficio.

Pronoun interpretation: Stress in null subject L2s

- In our earlier research on sentence interpretation, **Italian NSs and L2ers** show sensitivity to the different antecedent preferences of pronouns and to the overturning effects of **stress** (White et al. 2024).

Pronoun interpretation:

Stress in non-null subject languages

- In **English**, pronouns prefer antecedents which are subjects:
 - (3) **Monica**_i phoned **Claudia** when **she**_i was in the office.
- Contrastive **stress** on the pronoun results in an increased preference for non-subject antecedents (e.g. Grimshaw & Rosen 1990):
 - (4) **Monica** phoned **Claudia**_j when **SHE**_j was in the office.

Pronoun interpretation: Stress in non-null subject languages

- Gargiulo (2020) and Gargiulo et al. (2019) looked at effects of **stress on production** in **Swedish** (another non-null subject language) and found that NSs stressed pronouns to indicate an unexpected antecedent.

Pronoun interpretation: Pause in non-null subject languages

- In **Swedish**, a **pause** between clauses in production signals a non-subject antecedent for the pronoun (Gargiulo et al. 2019).
- We assume that English works like Swedish:
 - (5) **Monica**_i phoned **Claudia** when **she**_i was in the office.
 - (6) **Monica** phoned **Claudia**_j // when **she**_j was in the office.

Antecedent preferences in Italian and English

	null	overt unstressed	overt stressed	pause
Italian	subject	object	increase in subject (or external)	increase in subject (or external)
English	n/a	subject	increase in object (or external)	increase in object (or external)

Hypothesis

- In non-null subject languages like **English**, prosodic effects like **stress and pause** will result in a move away from the preference for subject antecedents for pronouns.

Objectives

- To establish whether L2ers favour subject antecedents for **unstressed pronouns** in English (like Italian null pronouns).
- To determine whether L2ers are sensitive to the **overturning effects of stress and pause** (reduction in preference for subject antecedents).

Experimental design

- Online experiment, administered via Alchemer.
- 21 Italian speakers (intermediate/advanced L2 English).
- 21 English native speakers.
- **Auditorily-presented biclausal sentences** (24 + fillers), manipulating \pm stress and \pm pause.
 - Stimuli were preceded by **written contexts** introducing potential referents (main clause subject, object or external).
 - After listening to a sentence, participants indicated their preferred referent for the pronoun.

Experimental design: example item (unstressed)

Written context (on screen)

Hazel, Janice and Judith are working on a project together.

Test sentence (audio only)

Janice called Judith when she was in the office.

Question (on screen)

Who was in the office?

Choices (on screen)

Hazel/Janice/Judith

Experimental design: example item (stressed)

Written context (on screen)

Heather, Charlotte and Karen are working on a project together.

Test sentence (audio only)

Karen called Charlotte when SHE was in the office.

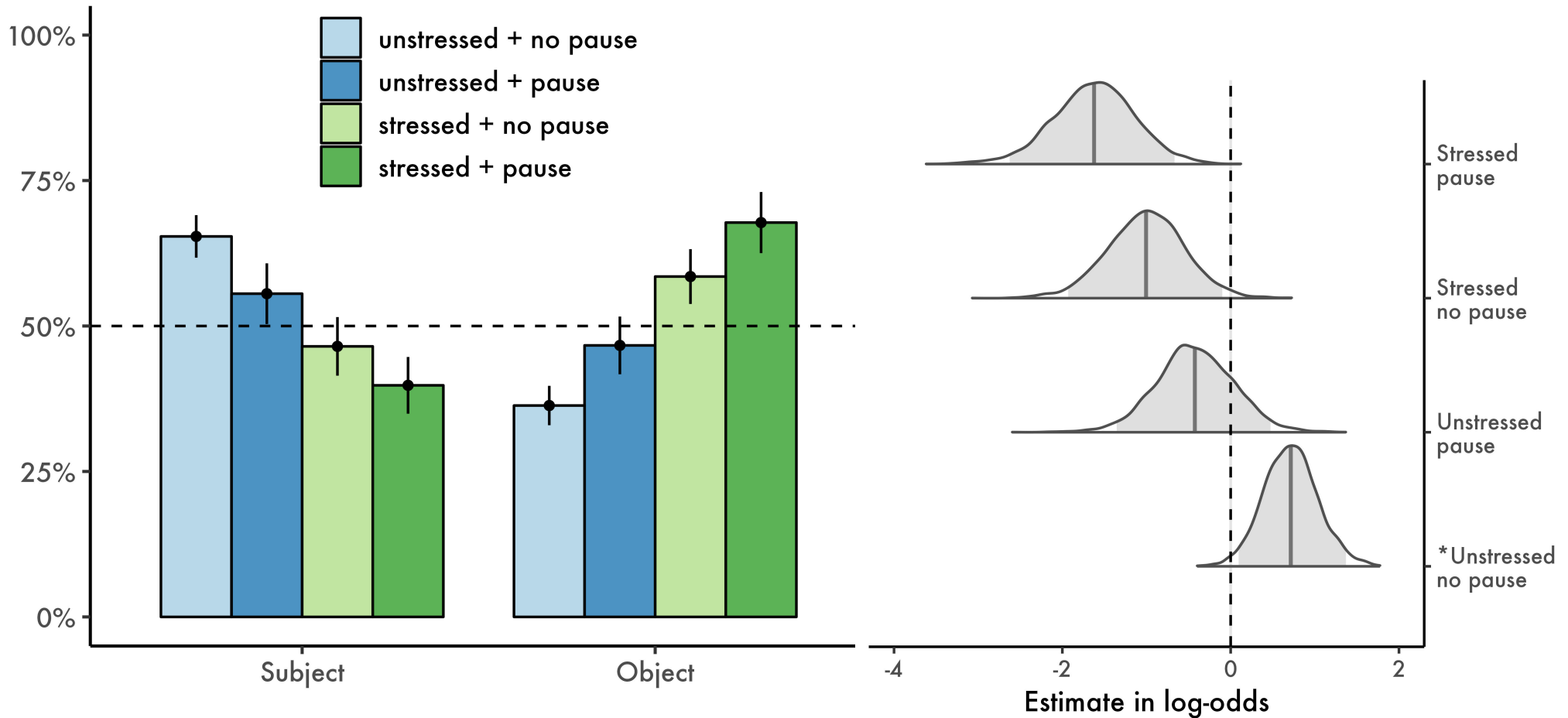
Question (on screen)

Who was in the office?

Choices (on screen)

Heather/Charlotte/Karen

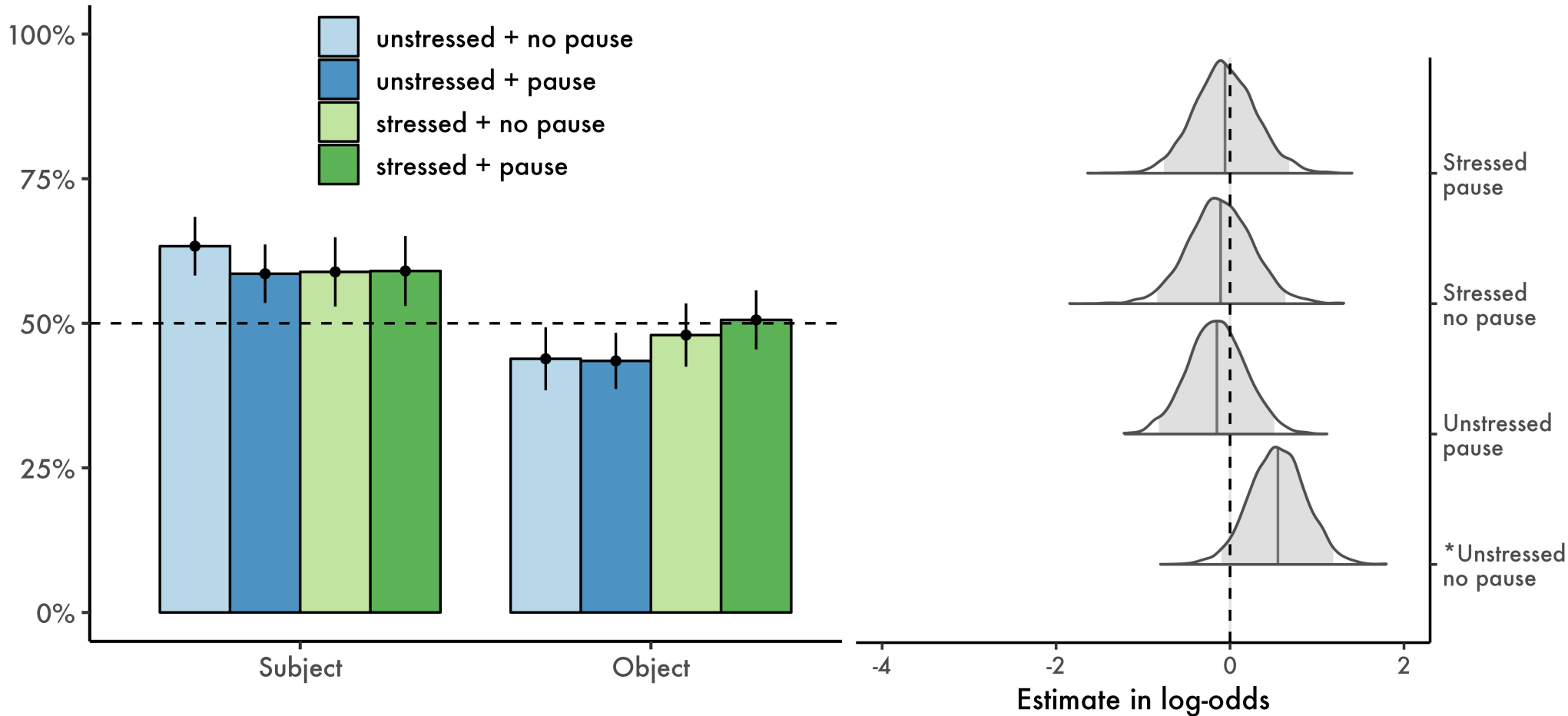
Results and analysis: L2ers



Bayesian mixed-effects logistic regression. Intercept (*Unstressed + no pause).

- Overall preference for subject antecedents in unstressed + no pause condition;
- **obj > subj** in stress conditions (with pause $\hat{\beta} = -1.62$); without pause ($\hat{\beta} = -1.01$).

Results and analysis: native speakers



Bayesian mixed-effects logistic regression. Intercept (*Unstressed + no pause).

- Overall preference for subject antecedents in unstressed + no pause condition;
- No clear effects of pause or stress.

Discussion

- The L2ers pattern like native speakers in recognizing that **unstressed overt pronouns** in English prefer subject antecedents, unlike overt pronouns in Italian.
- Our hypothesis that there are prosodic effects on pronoun interpretation was **partially confirmed**:
 - **L2ers** were sensitive to the overturning effects of stress – but not pause – showing increased acceptance of object antecedents.
 - Unexpectedly, **native speakers** did not show any such sensitivity.

Discussion

- We attribute L2ers' success to the fact that **Italian shows a contrast** in the preferred antecedents for the two pronoun types (null/overt).
- This **sensitises L2ers to the \pm stress contrast** in English and its role in interpretation.
- The lack of sensitivity shown by the native speakers is **puzzling**.
 - Possibly, prosody alone is insufficient to signal a shift in interpretation, in the absence of a richer discourse context.
 - Our contexts were not very informative, just providing names of potential antecedents without making any of them more or less topical.

Next steps

- Explore whether providing a richer discourse context sensitizes native listeners to a shift in antecedent choice, by means of other methodologies.
- Add a group whose L1 is not a null-subject language.

Acknowledgments

We thank Francie Freedman, Olivia Hyun and Marta Pogaccini for participant testing.

This work was supported by grants from the Social Sciences and Humanities Research Council of Canada and le Fonds de recherche du Québec – Société et culture.

SSHRC  CRSH

Social Sciences and Humanities Research Council of Canada
Conseil de recherches en sciences humaines du Canada

*Fonds de recherche
Société et culture*

Québec 

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