



(Bound) Pronouns in Competition: Evidence from Romanian Comprehension

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Overview & Theoretical Import

We ask how speakers interpret pronouns (e.g. Romanian *ea* 'her') when they are ambiguous between reflexive and non-reflexive readings. We find:

- no clear pressure for locally disjoint reference (contra Levinson, 1987; a.o.)
- no clear pressure for bound variable readings (contra Reinhart, 1983; Reuland, 2011, a.o.)
- complex reflexives (e.g. *ea însăși* 'her self') compete with simplex pronouns and this competition affects the bound variable interpretation of simplex forms

Testing Ground: Romanian Pronouns

Romanian pronouns *el* / *ea* 'him / her' are **ambiguous** between a **locally bound** and **locally disjoint** reading (not subject to Condition B). We investigate the interpretation of ambiguous *el/ea* by means of two experiments with pronouns targeting both referential (Exp 1) and quantified antecedents (Exp 2).

- (1) Acasă la **Mihai**, **Andrei** a vorbit despre **el** / **el însuși** / **acesta**
At **Mihai's** house, **Andrei** talked about **him** / **himself** / **this one**
- (1) Acasă la **bunicul Radu**, **fiecare băiat** a vorbit despre **el** / **el însuși** / **acesta**
At **grandpa Radu's** house, **every boy** talked about **him** / **himself** / **this one**

Possible Pressures on Pronominal Interpretation

	BINDING IS EASY	PRAGMATIC LISTENERS	FORMS COMPETE
Reasoning	Syntactic-semantic dependencies (binding) are more economical than discourse relations (coreference). (Reinhart 1983, 2006; Reuland 2011, 2011)	Reference is guided by pragmatic constraints. Speakers attempt to avoid ambiguity. Hearers are mindful of this strategy. (Dowty 1980; Levinson 1987, 2000)	Pronouns and reflexives compete. This competition is guided either by economy (Safir 2004, Rooryck & vanden Wyngaerd, 2011), or by pragmatic constraints (Levinson, 1987, 2000), or both economy and pragmatic pressures, in a graded fashion.
Hypothesis	Bound variable LFs are easier to construct than discourse-dependent reference relations.	If the language has an unambiguously reflexive form, listeners reject reflexive interpretations of ambiguous pronouns.	Complex reflexives are part of the competition: <i>el însuși</i> competes with <i>el</i> . Simplex <i>el</i> is more economical, <i>el însuși</i> is unambiguously reflexive.
Prediction	High rate of reflexive interpretation of <i>el</i> in ambiguous contexts.	Low rate of reflexive interpretation of <i>el</i> in ambiguous contexts.	Additional activation of <i>el însuși</i> will lead to a lower rate of reflexive interpretation of <i>el</i> in ambiguous contexts.

Comprehension Experiments: Referential & Quantified Antecedents

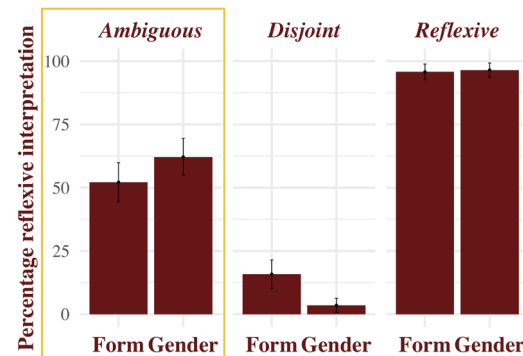
Task: Picture Matching. Participants chose one of two pictures to match their interpretation of a heard target sentence.
Exp. 1: Referential Antecedents (e.g. *Andrei*), 2 characters **Exp. 2:** Quantified Antecedents (e.g. every girl), 4 characters
Participants: 68 per experiment **Materials:** 15 items, 20 fillers **Dependent Variable:** rate of reflexive interpretation
Within Subjects Factor: AMBIGUITY (**Ambiguous** / **Reflexive** / **Disjoint**). **Ambiguous** stimuli invariant across groups.
Between Subjects Factor: GROUP (Pronoun **Gender** / Pronoun **Form** disambiguates **Reflexive** / **Disjoint** controls)
Form group exposed to greater proportion of reflexive pronouns *el însuși* / *ea însăși* (33%) than **Gender group** (0%)

GENDER GROUP		FORM GROUP		AMBIGUOUS CONDITION
Reflexive Condition		Reflexive Condition		Reflexive Condition
Acasă la Irina , Andrei a vorbit despre el At Irina's house, Andrei talked about him		Acasă la Mihai , Andrei a vorbit despre el însuși At Mihai's house, Andrei talked about himself		Acasă la Mihai , Andrei a vorbit despre el At Mihai's house, Andrei talked about him
Disjoint Condition		Disjoint Condition		Disjoint Condition
Acasă la Irina , Andrei a vorbit despre ea At Irina's house, Andrei talked about her		Acasă la Mihai , Andrei a vorbit despre acesta At Mihai's house, Andrei talked about this one		

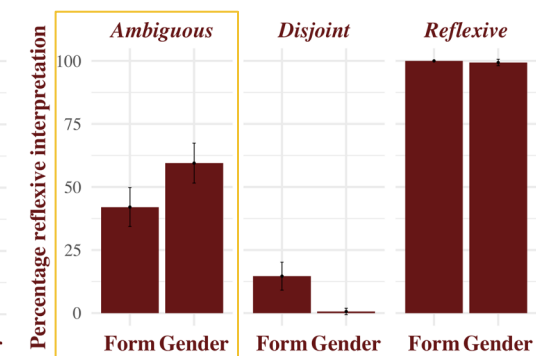
Results in a Nutshell

Logistic mixed-effects regression
→ significant difference in the rate of reflexive interpretation between the **Ambiguous** condition and (i) the **Reflexive** condition (Exp 1: $z = 5.98, p < 0.001$, Exp 2: $z = 5.16, p < 0.001$) and (ii) the **Disjoint** condition (Exp 1: $z = -8.18, p < 0.001$, Exp 2: $z = -6.07, p < 0.001$).
→ significant effect of **GROUP** in the **Ambiguous** condition in Exp. 2 ($z = -1.98, p < 0.05$), but not significant in Exp. 1 ($z = -1.72, p = 0.08$)

Exp 1: Referential Antecedents



Exp 2: Quantified Antecedents



Discussion

→ Contrary to **Binding is Easy** and **Pragmatic Listeners**, comprehenders did NOT show a clear preference in their interpretation of **ambiguous** pronouns (roughly 50% reflexive choices).
→ **Evidence of competition between forms**. Consistent with **Forms Compete**, the additional exposure to complex reflexives *el însuși* / *ea însăși* (in the **Form** group) led to a lower rate of interpretation of regular pronouns *el/ea* as bound variable reflexives in ambiguous contexts.

Acknowledgements

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