

Introduction

Traditional accounts posit that ellipsis sites are resolved under syntactic or semantic identity with an overt antecedent [1-6, *inter alia*].

The possibility of exophoric ellipsis [7] calls the traditional identity condition into question.

Experiment 1: Anaphoric ellipses are sensitive to manipulations in the nonlinguistic context, so identity-only accounts are inadequate.

Experiment 2: Discourse status does not fully explain ellipsis interpretation, so discourse-only accounts are also inadequate.

Experiment 1

Question Does changing contextual availability of numeral affect likelihood of numeral being included in VPE interpretation?

Participants 152 native English speakers (66 male) aged 18-50 (mean=31.8, sd=7.7) included in analysis (41 excluded)

Rating task On Amazon Mechanical Turk, participants viewed comic strip context, read a 1-2 utterance dialogue between the characters, and provided a rating of the last utterance.

3 (Comic Strip Context) x 3 (Antecedent) x 2 (Interpretation) design
6 critical scenarios and 10 fillers per subject

Comic Strip Contexts

Unavailable
No numeral information



Available
Numeral information retrievable



Salient
Numeral information highly salient



Antecedents

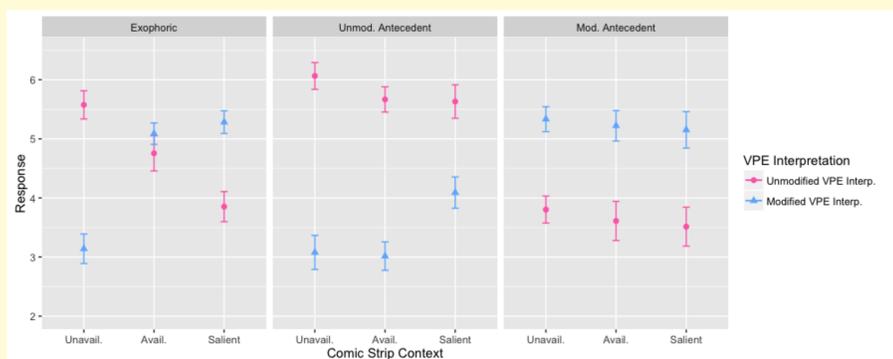
Exophoric [no antecedent]
Unmodified Son: I want to buy candy bars!
Modified Son: I want to buy five candy bars!

Reply Utterance Father: We can't.

VPE Interpretation Prompts On a scale from 1 to 7, where 1 is the least likely and 7 is the most likely, how likely do you think it is that the father meant...

Unmodified We can't buy any candy bars.
Modified We can't buy five candy bars, but maybe we could buy fewer.

Results



Experiment 1 results. Error bars denote standard error.

Experiment 1 (cont.)

Analysis

Overall mixed-effects model on z-transformed data shows significant three-way interaction between Comic Strip Context, Antecedent, and VPE Interpretation ($p < .001$)

By-Antecedent mixed-effects analysis:

<i>Exophoric</i>	Sig. interaction b/w Comic Strip Context and VPE Interp. ($p < .001$) Paired comparisons: As a function of Context numeral salience, Unmod. ratings decrease, Mod. ratings increase (all p 's $< .05$)
<i>Unmod. Ant.</i>	Sig. interaction b/w Comic Strip Context and VPE Interp. ($p < .05$) Paired comparisons: No effect of Comic Strip Context on ratings for Unmod. Interpretation (all p 's $> .3$) Mod. Interpretation rated higher with Salient Context than with Unavailable ($p < .01$) or Available ($p < .001$) Contexts
<i>Mod. Ant.</i>	No reliable role of Comic Strip Context in determining ratings

Discussion

- Contextual salience affects exophoric ellipsis interpretation
 - Exophoric* ellipsis interpretable under correct conditions
 - Subjects perceived *numeral salience* gap in Comic Strip Contexts
- Context asymmetrically affects anaphoric ellipsis interpretation
 - Unmodified Antecedents*: Salient numeral information yields stronger consideration of Modified Interpretation
 - Modified Antecedents*: No effect of numeral salience
- Antecedent-faithful interpretation is always preferred

Experiment 2

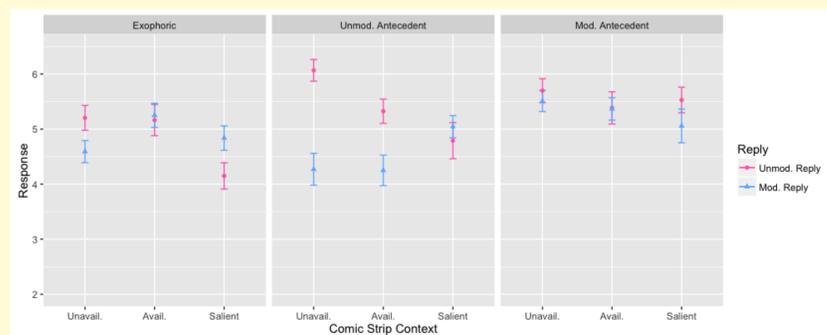
Question Can the effect from Exp. 1 be reduced to discourse status [7] or is an account with separate identity- and discourse-driven interpretation mechanisms [8, *inter alia*] more likely?

Participants 165 native English speakers (77 male) aged 18-50 (mean=32.4, sd=8.3) included in analysis (31 excluded)

Reply Utterance Exp. 1 VPE Interpretation Prompts replace VPE Reply - fully specified VP in response

Rating Prompts Subjects rate *coherence* of reply (1 to 7 scale) given prior context and antecedent - assumed to measure discourse salience of numeral/no numeral alternatives

Results



Experiment 2 results. Error bars denote standard error.

Analysis

Significant 3-way interaction b/w Comic Strip Context, Antecedent, and Reply ($p < .05$)

Paired comparisons: With Unmodified Antecedent, Salient Context, no reliable coherence difference between Unmodified and Modified Replies ($p > .4$)

Modified Antecedent: No significant effect of Reply (p 's $> .3$)

Discussion

In Exp. 2, the two replies are equally discourse coherent in several conditions where one interpretation was significantly preferred in Exp. 1
The preference for antecedent-faithful interpretations in Exp. 1 cannot be reduced to discourse salience of alternative propositions
Discourse-only accounts like [7] are not adequate for VPE facts.

Conclusion

Exp. 1: Exophoric and anaphoric VPE interpretation can be influenced by nonlinguistic information. For anaphoric VPE, nonlinguistic information is subordinate. Pure identity is insufficient.

Exp. 2: The effect of nonlinguistic information in Exp. 1 cannot be reduced to discourse status. Discourse-only accounts are insufficient.

VPE interpretation consists of separate but interactive modules considering linguistic and nonlinguistic information.