Ellipsis in context: Identity and salience both drive interpretation

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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 exclusively linguistic nature of ellipsis interpretation into question. Experiment 1: Anaphoric ellipses are sensitive to manipulations in the nonlinguistic context, so identity-only accounts are inadequate. Experiment 2: QUD status does not fully explain ellipsis interpretation, so discourse-only accounts are also inadequate.

Experimental Paradigm

Rating tasks 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. Subjects were paid USD 1.50; the task took approximately 15 minutes. 3 (Comic Strip Context) x 3 (Antecedent) x 2 (Prompt) designs 6 critical scenarios and 10 fillers per subject

Comic Strip Contexts

<table>
<thead>
<tr>
<th>Unavailable</th>
<th>No numeral Information</th>
<th>Available</th>
<th>Numerical information retrievable</th>
<th>Salient</th>
<th>Numerical information highly salient</th>
</tr>
</thead>
</table>

Antecedents

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

Response and Interpretation

Response from second character and rating solicited from participants varied by experiment

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)

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 Modified

We can’t buy any candy bars. We can’t buy any candy bars. But maybe we could buy fewer.

Results

Analysis

Overall mixed-effects model on z-transformed data shows significant three-way interaction between Comic Strip Context, Antecedent, and VPE Interpretation (p<0.001)

By-Antecedent mixed-effects analysis:

Exophoric Sig. interaction b/w Comic Strip Context and VPE Interp. (p<0.001)

Paired comparisons: Ratings of Unmod. Interpretation decrease as a function of numeral salience in the context, while ratings of Mod. Interpretation increase (all p’s<.05)

Unmod. Ant. Sig. interaction b/w Comic Strip Context and VPE Interp. (p<0.05)

Paired comparisons: No effect of Comic Strip Context on ratings for Unmod. Interpretation (all p’s>.3)

Mod. Ant. Interpretation rated higher with Salient Context than with Unavailable (p<.01) or Available (p>.001) Contexts

Discussion

Contextual salience affects exophoric ellipsis interpretation

- Exophoric ellipsis interpretable under correct conditions
- Subjects perceived numeral salience gap in Comic Strip Contexts
- Context can affect anaphoric ellipsis interpretation by promoting use of information not present in antecedent, but not by suppressing information present in antecedent
- Unmodified Antecedents show antecedent-unfaithful, numeral-modified VPE Interpretation more strongly considered when numerical information is salient in context
- Modified Antecedents show that contextual manipulation has no effect when numeral is included in antecedent
- Antecedent-faithful interpretation is always preferred

Experiment 2

Question

Can the effect from Exp. 1 be reduced to QUD status [7] or is an accommodation or repair account [8, i.a.] more likely?

Participants

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

VPE Interpretation Prompts

Explain why VPE Interpretation prompts from Exp. 1 replace VPE Reply utterances from Exp. 1

Rating Prompts

Relevance of reply (1 to 7 scale) given prior info - assumed to measure how well reply addresses QUD

Results

Analysis

Significant 3-way interaction b/w Comic Strip Context, Antecedent, and Reply (p<0.05)

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

Discussion

Unmodified VPE Interpretation from Exp. 1 is not more salient QUD than Modified Interpretation, with Unmodified Antecedent, Salient Context. But, in Exp. 1, Unmodified Interpretation is significantly better than Modified Interpretation under these conditions. QUD-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: Subordinacy of nonlinguistic information in Exp. 1 cannot be reduced to QUD status. QUD-only accounts are insufficient. VPE interpretation consists of separate but interactive modules considering linguistic and nonlinguistic information.

References