Discourse structure and parallelism in VP ellipsis
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Background

Sentences containing VP ellipsis (VPE) must find a matching antecedent VP for the elided VP. This parallelism condition is associated with recoverability: when a VP-gap is encountered, a VP representation from the preceding context must be copied into the empty VP position for the sentence to be interpreted. Sentences like (1a) [1] [2] suggest the ellipsis site contains a syntactic copy of the antecedent--in (1a) the antecedent and elided VP differ in Voice; the indexing in (2a) [3] is ruled out by Principle A.

(1a) a. *This problem was looked into by John, and Bob did too. b. **This problem was looked into by John, even though Bob already had.*

(2a) a. *John, blamed himself, and Bill did too [blame himself]. b. John, blamed himself, because Bill did [blame x].

However sentences like (1b) seem to improve in acceptability, despite being superficially analogous to (1a).

Kehler (2000, 2002): Difference is due to different discourse coherence relations that hold between antecedent and ellipsis clauses in (1a) vs. (1b). Both syntactic and semantic mechanisms for VP recovery are available; which one is selected is determined by the coherence relation between the clauses containing the antecedent and elided VPs.

![Resemblance and Cause-Effect diagram]

Establishing Resemblance requires aligning syntactic arguments. Sensitivity to syntactic identity, Principle A.

Establishing Cause-Effect requires relating only propositional meanings. Insensitivity to syntactic identity, Principle A.

VPE is resolved at a level of discourse representation that encodes coherence relations.

Hestvik (1993): An alternative account--while (2a) arguably involves symmetric coordination, in (2b), the ellipsis is in a subordinate clause. Thus (a) and (b) differ in the first NP John's to asymmetrically c-command the self-variable in the ellipsis site. Thus the subject can bind the variable in S2 for (2b), but not (2a).

VPE is resolved at a level of syntactic structure that encodes c-command relations.

Predictions

- **Coherence account (Kehler):**
  - Strict identity (2b) restricted to Cause-Effect.
  - Independent of whether VPE and antecedent are in same or different sentence.
- **Structural account (Hestvik):**
  - Strict identity dependent on connected syntactic structures--restricted to within-sentence VPE.

Experiment 1: Reflexives and Strict Identity

Experiment 1 looked at VPE sentences containing reflexives (2), manipulating (i) the Discourse Relation between the antecedent and ellipsis clauses (Resemblance used connectives and, but; Cause-Effect used so, because), and (ii) Ellipsis Type--whether the antecedent-ellipsis relation was within the same sentence (within-sentence), or spanned two sentences (cross-sentence).

**Within-Sentence:**

Resemblance: John voted for herself in the election, and Ann did too.


**Cross-Sentence:**

Resemblance: John voted for herself in the election. Ann did too.


**Results:**

- Both accounts predict more strict interpretations.

- Only Coherence account predicts extension to cross-sentential VPE.

Conclusions

- While the increased availability of strict interpretations of reflexives in VPE can be given a structural explanation (Experiment 1),

- The identity condition on VPE must hold at a level of representation that encodes discourse coherence relations: discourse parallelism (Resemblance) enforces syntactic identity more strictly when clauses are related causally (Cause-Effect) (Experiments 2-3).

- Gradient modulation of syntactic mismatch by discourse relation means that the discourse representations across which VPE antecedence is established must also encode sufficiently rich structural information.

Remaining questions:

- What type of structural information is VPE sensitive to? Experiments 2-3 used VPE matches as instances of syntactic mismatch, but Actives and Passives also differ with respect to information structure [7-8] or predication structure [9-10].

- What kind of processing mechanisms underlie VP ellipsis? In ongoing work, we look at how the discourse modulation of the structural identity constraint on VPE can be modeled in terms of comprehenders' expectations about how upcoming information will integrate into the preceding discourse.

One possible way to probe comprehenders' expectations is to manipulate how the discourse coherence structure is conveyed:

- The current studies rely on connectives to convey coherence information.

- Alternatively, a richer preceding discourse sequence could lead to higher expectations about the discourse relation preceding and upcoming information.

The time course (and possibly strength) of the expectations should differ by when the information about discourse coherence structure becomes available. Using the visual world eye-tracking paradigm [11], we can track anticipatory saccades to expected upcoming referents, indicating e.g. preference for strict vs. sloppy interpretations given a discourse context, and the timing of those expectations with respect to events in the linguistic input.

References