The processing of direct discourse: When a subordinate speech act sticks around

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Structure in Performance
At what stage does processing reflect discourse-level organization?

Direct discourse (DD): A secondary stream

Direct discourse (DD) speech reports contain two speech acts (SAs): the reporting sentence and the reported sentence. The reported sentence is not part of the current discourse. (1) DD: Evan said, “The cruise departed three hours late.” Cf. indirect discourse (ID) reports, only a single SA. (2) ID: Evan said that the cruise departed three hours late.

Is this kind of subordinate discourse unit treated differently in incremental processing?

Some existing evidence: DD, and not ID, is perceptually simulated separately, in the voice of its reported speaker.

- DD is associated with increased activity in voice-selective areas of the auditory cortex [1].
- First-pass and go-past times of DD are modulated by described speech rate [2, 3].
- The narrator’s voice is subject to the same simulation [4, 5].

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The downweighting of appositives

Appositive relative clauses (ARCs) are less influential in later computation than restrictive relative clauses (RRCs) [6–8].

(3) ARC: That evil man, the one who was on the cruise, tried to intimidate the waitress.
(4) RRC: That evil man who was on the cruise tried to intimidate the waitress.

- Naturalness judgments are less sensitive to the complexity of an ARC than the complexity of an RRC [6].
- ARCs, unlike RRCs, are generally not-at-issue, but even at-issue ARCs show decreased influence on judgements [7].
- Filler-gap dependencies (5) are more quickly and easily integrated across ARCs than RRCs [8].

(5) Filler and guided practice were identical to [6].

Discussion: We find only a main effect of Complexity, and not the predicted difference of differences interaction. We find no support for the hypothesis.

Experiment 2: Does DD provide less retrieval interference? (n = 48)

We collected naturalness judgements (1-7) on Prolific for 32 items crossing Structure [ID, DD] × Complexity [Short, Long].

Experiment 1: Is DD less influential in judgement? (n = 48)

We collected naturalness judgements (1-7) on Prolific for 32 items crossing Structure [ID, DD] × Complexity [Short, Long].

Hypothesis

Online comprehension processes are organized at the level of maximal discourse meaning, the speech act. When a sentence contains multiple speech acts, secondary speech acts are downweighted in late-stage computation.

Prediction: DD should demonstrate the same downweighting as ARCs.

- Acceptability judgements will be less sensitive to the complexity of DD than ID.
- Filler-gap dependencies will be more easily integrated across DD than ID.

Filler ID DD

<table>
<thead>
<tr>
<th>Complexity</th>
<th>ID</th>
<th>DD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Short</td>
<td>Evan said that the cruise departed three hours behind schedule.</td>
<td>Evan said, “The cruise departed three hours behind schedule.”</td>
</tr>
<tr>
<td>Long</td>
<td>Mary took to the Pacific Islands departed three hours behind schedule.</td>
<td>Mary took to the Pacific Islands departed three hours behind schedule.</td>
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</tbody>
</table>

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Conclusions

Though DD is treated as an independent discourse unit online, we observe no corresponding patterns of reduced influence downstream.

- No evidence that judgement weights DD less than ID as evidence of naturalness.
- No evidence that filler-gap retrieval and integration can exclude or limit interference from DD.

The general hypothesis that the processor backgrounds secondary discourse units is too strong.

Either DD is a marked exception, or we should entertain a prosodic alternative hypothesis.

References


Acknowledgments: We thank Margaret Knell, Josia Law, Matt Wagers, Brian Dillon, Sandy Chung, Lyn Frazier, Chuck Clifton, and meetings of LING 290 W20 and x2lab at UCSC for their assistance and feedback.