Implicit Causality Biases Influence Relative Clause Attachment

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Peer reviewed version

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Implicit Causality Biases Influence Relative Clause Attachment
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Abstract

Problem: As comprehenders combine words to form a sentence, they must also combine clauses and sentences to form a coherent discourse. Is the resolution of local syntactic ambiguity sensitive to the process of inferring a coherent discourse?

Proposal: Bring together 3 observations about the pragmatic functions of relative clauses (RCs) and the biases associated with implicit causality (IC) verbs, and test whether these types of factors influence the resolution of local structural ambiguity in relative clause attachment:

(i) John detests/babysits the children of the musician who...

Results: An off-line sentence-completion study and an on-line self-paced reading study examined comprehenders’ expectations for high-low RC attachments following IC and non-IC verbs. In both studies, IC verbs shifted readers’ attachment preferences from low to high. In the completion study, most high-attaching RCs following IC verbs encoded explanations of the matrix-clause event. These results suggest that comprehenders use pragmatic cues mid-sentence to generate expectations about the structural analysis of the rest of the sentence.

3. Constructing Examples to Test Discourse Biases

• Observation #1: RCs can also provide an explanation
  (4) The boss fired the employee who always showed up late.  
  (5) John detests Mary.  she is arrogant and rude.
  (6) NonIC: John babysits Mary.  Mary’s mother is grateful.

• Observation #2: Bias towards explanations following IC verbs
  (7) IC: John detests Mary because she is arrogant.
  (8) NonIC: John babysits Mary because

• Observation #3: w/explanation, IC verbs have next-mention bias
  (9) IC:          John detests Mary because ____________________.
  (10) NonIC:   John babysits the children of the musician who …

4. Predictions for IC Biases in RC Attachment

• Discourse Hypothesis: IC verbs will increase comprehenders’ expectations for a high-attaching RC

6. Off-line Sentence Completion Results

<table>
<thead>
<tr>
<th>% High Attachments</th>
<th>More high-attaching RCs following IC verbs than NonIC</th>
</tr>
</thead>
<tbody>
<tr>
<td>IC</td>
<td>% Explanation RCs following IC than Non-IC</td>
</tr>
</tbody>
</table>

7. On-line Self-Paced Reading Results

• Online results match offline results: bias to high attachments following IC verbs

8. Conclusions

• Do people use discourse-level expectations and biases as they resolve local syntactic ambiguity?

References


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