At-issue co-speech gestures under contrastive focus: Evidence from an acceptability judgement task

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Summary

- Question: can co-speech gestures, such as in (1), ever make at-issue contributions?
- Answer: for most people at-issue readings of co-speech gestures under contrastive focus are degraded, but there is a lot of variation.

Background

Table 1: Existing analyses of co-speech gestures

<table>
<thead>
<tr>
<th>analysis</th>
<th>gist</th>
<th>at-issue readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>supplemental (Ebert &amp; Ebert)</td>
<td>Co-speech gestures are supplements akin to appositives. Local accommodation is unavailable.</td>
<td>not possible</td>
</tr>
<tr>
<td>obligatory presupposition (Schlenker)</td>
<td>Co-speech gestures obligatorily trigger presuppositions. Local accommodation is available, cost depends on trigger strength.</td>
<td>possible, with cost</td>
</tr>
<tr>
<td>optional presupposition (Schlenker, version)</td>
<td>Co-speech gestures optionally trigger presuppositions in the right circumstances. Non-generation is possible at no cost.</td>
<td>possible, w/o cost</td>
</tr>
<tr>
<td>mixed behavior (Esipova)</td>
<td>Co-nominal gestures can be (presumption-triggering) NP-level with or modifiers or DP-level supplements. w/o cost</td>
<td></td>
</tr>
</tbody>
</table>

- Tieu et al.: inferences contributed by co-speech gestures (in (2a)) project from embedded environments significantly more than contributions of control at-issue modifiers (in (2b)):
  - (2) a. The boy will not use the stairs down.
  - b. The boy will not use the stairs in this direction down.
  - But Tieu et al. don’t take into account the role of focus. In (2b) the modifier ‘P is focused, and thus necessarily at-issue, while in (2a) focus doesn’t have to associate with the gesture.

Goals of the study

- Primary goal: compare acceptability of target examples in which focus makes the at-issue interpretation of the gestures the only one possible (Gestural Contrast) to control examples (Verbal Contrast):
  - (3) John might order a beer

- Secondary goal: see whether type of content encoded by the gestures (Shape vs. Size) or emphasis on the gesture (Emphatic vs. Non-Emphatic) can affect the acceptability of the target examples.

Results

- Contrast: Verbal > Gestural; no main effect of Content or Emphasis
- minor Contrast/Content interaction: Shape Verbal > Size Verbal; no Contrast/Emphasis interaction
- a lot of variation across speakers and examples (the latter result is in line with Zlogar & Davidson)

Discussion

- Primary question:
  - Ignoring variation: the data are compatible with the supplemental, obligatory cosupposition (with gestures as strong triggers), and some versions of the mixed behavior analyses.
  - Taking into account variation:
    - We exclude the supplemental analysis.
    - We can’t assign a uniform trigger strength to gestures.
    - We raise the question of how the amount of variation correlates with the level of linguistic integration of certain content.
- Secondary questions:
  - Content: the results are inconclusive (variation across example sets, world knowledge potentially intervening).
  - Emphasis: the results suggest emphasis on the gestures doesn’t affect the acceptability of at-issue interpretations, but the reasons for the null effect are unclear.

Selected references


Hypotheses tested

- Contrast:
  - optional cosupposition (null): Verbal = Gestural (categorical)
  - obligatory cosupposition: Verbal > Gestural; absolute value of Gestural Contrast depends on trigger strength (gradient)
  - supplemental: Verbal > Gestural; low absolute value of Gestural Contrast (categorical)
  - mixed behavior: Verbal ≥ Gestural, depending on further assumptions (gradient or categorical)
- Contrast/Content:
  - null: no interaction
  - non-null: Shape Gestural < Size Gestural
- Contrast/Emphasis:
  - null: no interaction
  - non-null: Emphatic Gestural > Non-emphatic Gestural

Table 2: Experimental design

<table>
<thead>
<tr>
<th>Content</th>
<th>Emphasis</th>
<th>Gesture</th>
<th>Verbal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Emphatic</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Non-Emphatic</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Size</td>
<td>Emphatic</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Non-Emphatic</td>
<td>4</td>
<td>4</td>
</tr>
</tbody>
</table>

Fig. 1: Main effects of the three conditions

Fig. 2: Contrast/Content interaction

Fig. 3: Individual mean ratings for Gestural vs. Verbal Contrast

Fig. 4: Variation across sets of examples