Background

- Communication is a collaborative process governed by rational expectations.1
  - Listeners expect speakers to be appropriately informative, truthful, relevant and perspicuous.
- However, in everyday talk exchanges, participants often violate conversational expectations. E.g., Speakers violate expectations of informativeness by offering less information than listeners need.
- Although non adult-like, children appear sensitive to such violations, across a variety of phenomena.2-4 E.g., Children give lower ratings to under-informative speakers (as opposed to fully informative ones)3 and consider under-informative teachers as less helpful.5

Current Study

- Is children’s communicative behavior affected by whether a partner previously violated conversational expectations?
  - In the social domain, children do not share resources with uncooperative partners (defectors)6
  - Children were more likely to give the appropriate reward to the informative rather the under-informative partner.7
  - In communication, would children adjust the amount of information they give to a conversational partner based on how informative (i.e., helpful) the partner was towards them in a prior interaction?

Methods

Participants

- 33 4-year-olds (M = 4.6, range =4.0 – 4.11) and 34 5-year-olds (M = 5.7 months, range = 5.1 – 6.0)
Total planned n = 88 – data collection still ongoing

Informativeness rating task

- **Pragmatic responders:** Children who gave the big reward to the informative puppet and the small reward to under-informative puppet.
- **Syntactic responders:** Children who gave the big reward to the informative puppet and the small reward to under-informative puppet.
- **Protagonistic responders:** Children who gave the big reward to the informative puppet and the small reward to under-informative puppet.

Table 1. Number of children who gave big or small rewards to the informative and under-informative puppet. Stars indicate statistically significant comparisons to chance (.5) in

<table>
<thead>
<tr>
<th>Reward</th>
<th>Informative puppet</th>
<th>Under-informative puppet</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Big</td>
<td>30***</td>
<td>10**</td>
<td>40***</td>
</tr>
<tr>
<td>Small</td>
<td>0</td>
<td>20***</td>
<td>20***</td>
</tr>
</tbody>
</table>

Results

- **Informativeness rating task**
  - **Reference communication task**

<table>
<thead>
<tr>
<th>Proportion of target modifiers</th>
<th>4s</th>
<th>5s</th>
</tr>
</thead>
<tbody>
<tr>
<td>Helpful partner</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Unhelpful partner</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

- Both 4- and 5-year-olds were more likely to give the appropriate reward to the informative rather the under-informative puppet (p = 0.001, ηp2 = 0.156). Children described the pictures for the informative puppet.
- Based on ratings, we coded children’s pragmatic sensitivity:8
  - **Protagonistic responders:** Children who gave the big reward to the informative puppet and small reward to under-informative puppet.

References


Conclusion

- **Children were sensitive to speakers’ violations of informativeness.**2-4
  - Both 4- and 5-year-old children successfully awarded informative speakers with a big reward and penalized under-informative speakers with a small reward.
  - Children were more likely to give the appropriate reward to the informative rather the under-informative speaker.
- **Older preschoolers used this partner-specific information to guide their communicative behavior in subsequent interactions with these partners.**
  - Older 5-year-olds were more likely to use target modifiers when communicating with a helpful (vs. an unhelpful) partner.
  - However, younger children produced the same amount of modifiers, independently of the partner’s helpfulness.
- **Children’s linguistic behavior is guided by broader rationality expectations** (i.e., reciprocity) that are also active in the social domain.

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