INTRODUCTION

- Typically developing children assume that a novel label describes an unfamiliar object, as opposed to a familiar object with a known name—a phenomenon called mutual exclusivity.
- Mapping novel words to novel objects may help children learn words. Deficits in mutual exclusivity could be related to the early vocabulary delays experienced by many children with ASD.

Older children with ASD show mutual exclusivity, but this issue has not been investigated in younger children with ASD.

The objectives of this study were:
1. To determine whether young children with ASD demonstrate mutual exclusivity by attending to an unfamiliar image when they hear a nonword.
2. To compare how quickly and accurately these children process familiar words versus nonwords.

PARTICIPANTS

<table>
<thead>
<tr>
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<th>ASD Group (n = 18)</th>
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<tbody>
<tr>
<td></td>
<td>Mean (SD)</td>
</tr>
<tr>
<td>Chronological age in months</td>
<td>31 (3)</td>
</tr>
<tr>
<td>Bayley-III Composite Scores</td>
<td>86 (13)</td>
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<tr>
<td>Parent-reported receptive vocabulary in words</td>
<td>165 (87)</td>
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Note. An additional 10 children were excluded due to excessive missing data. Bayley-III Composite scores have a mean of 100 and a SD of 15. Vocabulary was measured using the Communicative Development Inventory, Words and Sentences (maximum number of words = 396).

MUTUAL EXCLUSIVITY TASK

“Find the dog.”

Real Word Condition

Nonword Condition

“Find the vase.”

RESULTS

- Children increased their looks to unfamiliar images after hearing nonwords, despite an initial preference for the familiar images (significant non-zero slope toward unfamiliar image).
- In the Nonword condition, the proportion of target looks stabilized around 0.50.
- Children looked significantly more to the target in the Real Word than the Nonword condition. There was a significant time*condition interaction showing a steeper slope in the Real Word than the Nonword condition.

CONCLUSIONS

Young children with ASD demonstrated mutual exclusivity by increasing looks to unfamiliar images after hearing nonwords. This strategy might help them determine the referents of new words.

Nevertheless, they continued to look at the familiar object about half of the time, possibly demonstrating the impact of baseline visual preferences on attention allocation in a language-based task.

Additional research is needed to investigate the relationships among visual attention, language processing, and language learning in children with ASD.

REFERENCES


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