Naturalistic Joint Attention and Theory of Mind in Children with ASD and TD
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INTRODUCTION

- **Theory of Mind (ToM)** → the ability to take the perspective of another person
- **Joint Attention (JA)** → the ability to coordinate with a person during communication

  - Previous research on JA: (a) involved constrained situations (b) no independent investigation of language (c) did not distinguish responder from initiator of JA

  - Here we examine how parent-toddler engagement in JA during free-play and early language relate to ToM performance 3 years later

  - Language and JA → precursors to ToM in both children with ASD and TD peers.

METHODS

- Parent-toddler dyads engaged in 3, 30-minute, semi-structured play sessions separated by 4 months as part of a longitudinal study.

  - Groups matched on receptive language at Visit 1

  - Sessions were recorded and coded for JA type

  - ToM was assessed approximately 3 years later
    - Unexpected change of contents task
    - Unexpected change of location task
    - Summed for one composite score

RESULTS

- TD → significantly higher TACL scores and ToM performance than ASD group

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<tr>
<th></th>
<th>TD</th>
<th>ASD</th>
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</thead>
<tbody>
<tr>
<td>TACL Vocabulary Raw Scores</td>
<td>36.55 (4.9)</td>
<td>29.3 (8.9)**</td>
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<tr>
<td>TACL Quotient</td>
<td>120.7 (11.4)</td>
<td>78.5 (22.1)**</td>
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<tr>
<td>ToM Percent Correct</td>
<td>89.39 (15.7)</td>
<td>48.73 (39.9)**</td>
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DISCUSSION

- Early JA performance is important for later ToM in children with ASD or TD

- Early language ability related to later ToM for both groups

- RJA mediated the relationship for ToM and early language, but not later language → language proficiency although necessary, is not sufficient for ToM competency

- JA skills add important understanding to ToM above and beyond individual language ability

- Moreover, concurrent language and ToM were positively correlated suggesting language plays a vital role in ToM development

REFERENCES

7. Test of Auditory Comprehension of Language, Carrow Westfall

Grant funding: R01DC016665 and R01 2DC007428 to L. R. Naigles