BACKGROUND

- "Um" is proposed to serve a pragmatic function in discourse.1,2
- Studies have reported that autistic children and children with attention deficit/hyperactivity disorder (ADHD) produce fewer "um" tokens than their peers without diagnoses of autism/ADHD (no diagnoses; ND), although the evidence is mixed.1,3,4
- "Um" use in ASD has typically been assessed in a single context (e.g., standardized testing).
- Few studies consider the investigator’s role as a discourse partner.
- Moreover, autism & ADHD frequently co-occur (referred to as AuDHD).5
- Despite high co-occurrence, few studies have looked at "um" use of AuDHD children.

OBJECTIVE: To investigate "um" use by both the child and adult investigator, specifically by considering a) varying contexts and b) the role of the investigator as a co-conversationalist

METHODS

<table>
<thead>
<tr>
<th></th>
<th>ASD (n = 21)</th>
<th>ADHD (n = 24)</th>
<th>AuDHD (n = 31)</th>
<th>ND (n = 22)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>11.6</td>
<td>11.9</td>
<td>12.0</td>
<td>12.5</td>
</tr>
<tr>
<td>(2.2)</td>
<td>(2.5)</td>
<td>(2.3)</td>
<td>(2.3)</td>
<td></td>
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<tr>
<td>VIQ (WASI)</td>
<td>96.2(1)</td>
<td>97.4(1)</td>
<td>96.2(4)</td>
<td>110.9(6)</td>
</tr>
<tr>
<td>(14.1)</td>
<td>(14.1)</td>
<td>(17.1)</td>
<td>(13.7)</td>
<td></td>
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<tr>
<td>ADOS</td>
<td>9.3(3)</td>
<td>4.5(9)</td>
<td>10.8(5)</td>
<td>3.9(2)</td>
</tr>
<tr>
<td>(3.3)</td>
<td>(3.9)</td>
<td>(3.2)</td>
<td></td>
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</tr>
</tbody>
</table>

NOTE: superscripts of different letters indicate a statistically significant difference; TD group did not receive the ADOS

- Children viewed a virtual classroom and participated in three 3-minute conditions varying in social demand: Non-Social (viewing 9 lollipops), Social (viewing 9 "peer" avatars), and High-Demand Social (viewing 9 peer avatars who fade when not fixated)
- Children answered questions about their lives (e.g., favorite vacation, holiday, etc.) while addressing avatars
- Audio recordings were transcribed and analyzed using CLAN.8
- "Um" tokens were tallied for the child (CHI) and investigator (INV) separately

DISCUSSION

- All groups produced more "um" tokens during the high-demand social phase, suggesting that "um" use may be modulated by context.
- Autistic children’s production of "um" was systematically related to that of the investigator, suggesting possible reciprocal priming effects of the investigator and child’s DM use.
- Both while the investigator was required to follow scripted questions in this study, "um" use tends to be unsprinkled and more 'natural'.
- Both the context and investigator effects may help explain the current mixed evidence concerning "um" use by autistic individuals.

REFERENCES + ACKNOWLEDGMENTS

1. Inoue et al. (2018), Um, um, and autism: Filler differences as pragmatic markers in adolescents with optimal outcomes from autism spectrum disorder. Journal of Autism and Developmental Disorders, 48, 1061-1070.

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