
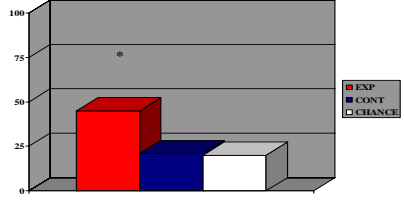
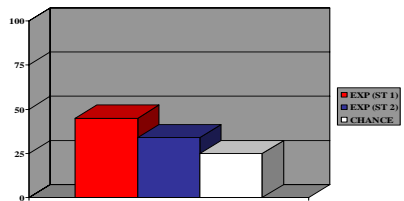


Scotfield, J. & Williams, A. (2006). Joint Attention and Referential Intent in Children's Word Learning. Poster accepted to the Meeting for the Midwestern Psychological Association. Chicago, IL.

<p style="text-align: center;"><b>Joint Attention and Referential Intent in Children's Word Learning</b></p> <p style="text-align: center;">Jason Scotfield &amp; Amie Williams University of Alabama</p>	<p style="text-align: center;"><u>Introduction</u></p> <ul style="list-style-type: none"> <li>• <b>Joint attention</b> is a shared attentional state in which: <ul style="list-style-type: none"> <li>– partners attend to the same subject at the same time (i.e., <b>joint focus</b>)</li> </ul> <p style="text-align: center;">AND</p> <ul style="list-style-type: none"> <li>– partners understand something significant about the shared nature of their attention (i.e., <b>intersubjective awareness</b>)</li> </ul> </li> <li>• Joint attention is believed to be important for successful word learning because it can indicate both the specific location of a referent and the speaker's <b>referential intent</b>.</li> </ul>
<p style="text-align: center;"><u>Study 1</u></p> <ul style="list-style-type: none"> <li>• Interestingly, some studies report that successful word learning can, and does, occur in the <b>absence of joint attention</b>. One limitation of these studies however is that one partner, either the speaker or the child, always attends to the target object.</li> <li>• Study 1 was designed to examine the success of word learning when neither partner attends to the target. <ul style="list-style-type: none"> <li>– Successful word learning in Study 1 would provide evidence against the importance of joint attention in word learning.</li> <li>– While, unsuccessful word learning in Study 1 would provide evidence for the importance of joint attention in word learning.</li> </ul> </li> </ul>	<p style="text-align: center;"><u>Method</u></p> <ul style="list-style-type: none"> <li>• Participants <ul style="list-style-type: none"> <li>– Number: N = 48 N = 24 (Experimental Condition) N = 24 (Control Condition)</li> <li>– Age: 2-year-olds (M = 32 months)</li> <li>– Gender: 30 Girls, 18 Boys</li> </ul> </li> <li>• Materials <ul style="list-style-type: none"> <li>– Test Phase: 1 Wooden Box 2 Novel Target Objects 8 Novel Distracter Objects</li> </ul> </li> </ul>
<p style="text-align: center;"><u>Method</u></p> <ul style="list-style-type: none"> <li>• Procedure <ul style="list-style-type: none"> <li>– Children were presented with an opaque wooden box containing a novel target object. Either a new word or a neutral comment was presented by the speaker 3 times. <ul style="list-style-type: none"> <li>• <b>Experimental Condition:</b> e.g., "A koba."</li> <li>• <b>Control Condition:</b> e.g., "Wow. "</li> </ul> </li> <li>– Following the presentation of the novel word the target was removed, revealed, and re-presented with 4 novel distracters. The child selected the object that best corresponded to the word. <ul style="list-style-type: none"> <li>• <b>Novel Word Probe:</b> e.g., "Can you find the koba?"</li> </ul> </li> </ul> </li> </ul>	<p style="text-align: center;"><b>Figure 1: Stimuli (Box and Novel Objects)</b></p> 
<p style="text-align: center;"><u>Hypotheses</u></p> <ul style="list-style-type: none"> <li>• Hypothesis 1 - <ul style="list-style-type: none"> <li>– Children will select the target in the experimental condition at a rate significantly higher than is predicted by chance.</li> <li>– <b>Experimental Condition &gt; Chance</b></li> </ul> </li> <li>• Hypothesis 2 <ul style="list-style-type: none"> <li>– Children will select the target in the experimental condition at a rate significantly higher than in the control condition.</li> <li>– <b>Experimental Condition &gt; Control Condition</b></li> </ul> </li> <li>• Hypothesis 3 <ul style="list-style-type: none"> <li>– Children in the control condition will not select the target at a rate that differs significantly from the rate predicted by chance.</li> <li>– <b>Control Condition = Chance</b></li> </ul> </li> </ul>	<p style="text-align: center;"><u>Results</u></p> <ul style="list-style-type: none"> <li>• Hypothesis 1 <ul style="list-style-type: none"> <li>– Target selected on 45% of all trials (i.e., 11/24)</li> <li>– Chance = 20% (i.e., 4.8/24)</li> <li>– <b>Experimental Condition &gt; Chance</b></li> </ul> </li> <li>• Hypothesis 2 <ul style="list-style-type: none"> <li>– Target selected on 45% of all trials (i.e., 11/24)</li> <li>– Target selected on 21% of control trial (i.e., 5/24)</li> <li>– <b>Experimental Condition &gt; Control Condition</b> (p = .062)</li> </ul> </li> <li>• Hypothesis 3 <ul style="list-style-type: none"> <li>– Target selected on 21% of control trial (i.e., 5/24)</li> <li>– Chance = 20% (i.e., 4.8/24)</li> <li>– <b>Control Condition = Chance</b></li> </ul> </li> </ul>

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<p><b>Figure 2: Percentage of 2-yr-olds that Selected the Target</b></p>  <p>EXP &gt; CHANCE      <math>\chi^2 (1, N = 24) = 10.01, p &lt; .01</math>          EXP &gt; CONT        <math>\chi^2 (1, N = 24) = 3.375, p = .062</math>          CONT = CHANCE</p>	<p style="text-align: center;"><u>Study 2</u></p> <ul style="list-style-type: none"> <li>In Study 1 successful word learning occurred in the absence of joint attention. However, the rate of success was lower than the rate found in previous studies (i.e., 45% &lt; 70%).</li> <li>One possible explanation is that attention of any kind provides important information about referential intent. Because neither partner in Study 1 attended to the target, information about referential intent was not provided.</li> <li>Study 2 was designed to examine the success of word learning <b>in the absence of joint attention but in the presence of referential intent</b>.             <ul style="list-style-type: none"> <li>A rate of success similar to previous studies would provide evidence for the importance of referential intent.</li> <li>A rate of success similar to Study 1 would provide evidence against the importance of referential intent.</li> </ul> </li> </ul>
<p style="text-align: center;"><u>Method</u></p> <ul style="list-style-type: none"> <li>Participants             <ul style="list-style-type: none"> <li>Number                    N = 29</li> <li>Age                         2-year-olds (M = 31.5 months)</li> <li>Gender                    19 Girls, 10 Boys</li> </ul> </li> <li>Materials             <ul style="list-style-type: none"> <li>Test Phase                1 Wooden Box</li> <li>                                  2 Novel Target Objects</li> <li>                                  6 Novel Distracter Objects</li> </ul> </li> </ul>	<p style="text-align: center;"><u>Method</u></p> <ul style="list-style-type: none"> <li>Procedure             <ul style="list-style-type: none"> <li>Children were presented with an opaque wooden box containing a novel target object. 3 cues to referential intent were presented:                 <ul style="list-style-type: none"> <li>The speaker shook the box.</li> <li>The speaker reached into the box.</li> <li>The speaker said "I know what's in the box."</li> </ul> </li> <li>The remainder of procedure in Study 2 continued similarly to Study 1 except that participant's completed both the experimental and control conditions (i.e., within subjects design).</li> </ul> </li> </ul>
<p style="text-align: center;"><u>Hypotheses</u></p> <ul style="list-style-type: none"> <li>Hypothesis 1             <ul style="list-style-type: none"> <li>Children's rate of target selection in the experimental condition of Study 2 will be higher than the rate found in Study 1.</li> <li>(1) <b>Experimental Study 2 &gt; Experimental Study 1</b></li> </ul> </li> <li>In addition, as in Study 1:</li> <li>Hypothesis 2             <ul style="list-style-type: none"> <li><b>Experimental Condition &gt; Chance</b></li> </ul> </li> <li>Hypothesis 3             <ul style="list-style-type: none"> <li><b>Experimental Condition &gt; Control Condition</b></li> </ul> </li> <li>Hypothesis 4             <ul style="list-style-type: none"> <li><b>Control Condition = Chance</b></li> </ul> </li> </ul>	<p style="text-align: center;"><u>Results</u></p> <ul style="list-style-type: none"> <li>Hypothesis 1             <ul style="list-style-type: none"> <li>Target selected on 45% of Study 1 trials (i.e., 11/24)</li> <li>Target selected on 34% of Study 2 trials (i.e., 10/29)</li> <li><b>Experimental Study 2 (34%) = Experimental Study 1 (45%)</b></li> </ul> </li> <li>Hypothesis 2             <ul style="list-style-type: none"> <li><b>Experimental Condition (34%) = Chance (25%)</b></li> </ul> </li> <li>Hypothesis 3             <ul style="list-style-type: none"> <li><b>Experimental Condition (34%) = Control Condition (21%)</b></li> </ul> </li> <li>Hypothesis 4             <ul style="list-style-type: none"> <li><b>Control Condition (21%) = Chance (25%)</b></li> </ul> </li> </ul>
<p><b>Figure 3: Selection of the Target in Study 2 Compared to Study 1</b></p>  <p>EXP STUDY 2 = EXP STUDY 1          EXP STUDY 2 = CHANCE</p>	<p style="text-align: center;"><u>Conclusions</u></p> <ul style="list-style-type: none"> <li>Successful word learning can occur when neither partner attends to a target.</li> <li>Success when neither partner attends to a target may not be as robust as when one or both partners attend to a target.</li> <li>Explicit cues to referential intent may not increase success.</li> <li>Successful word learning can occur <b>in the absence of joint attention and may not be improved by the presence of explicit cues to referential intent</b>.</li> </ul>