



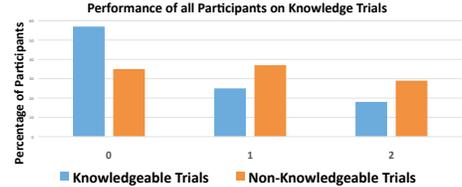
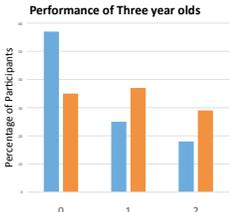
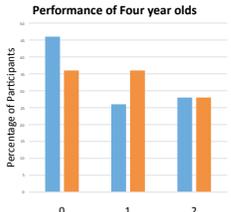
The Curse of Knowledge and False Belief Reasoning



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Introduction	Method (cont.)	Results (cont.)
<p>When adults are knowledgeable about an outcome of an event they are more likely to believe that others will predict that outcome (e.g., Fischhoff, 1975).</p> <p>This 'curse of knowledge' (<i>the tendency to be biased by one's knowledge when inferring a more naïve perspective</i>) interferes with adults' ability to reason about other people's false beliefs (i.e., beliefs that are inconsistent with reality; e.g., Birch & Bloom, 2007).</p> <p>Does the curse of knowledge affect children's false belief performance?</p> <p>Researchers suggest that classic false belief tasks are particularly difficult for young children because they pose an additional demand of having to ignore one's outcome knowledge (Birch & Bernstein, 2007).</p> <p>This is especially problematic for young children because they are more susceptible to the curse of knowledge than older children and adults (e.g., Bernstein, Erdfelder, Meltzoff, Peria & Loftus, 2011; Birch & Bloom, 2003; Mitchell & Taylor, 1999).</p>	<p>The order of the Knowledgeable and Non-Knowledgeable trials was counterbalanced.</p> <p>E.g., "This is Sally and this is Ryan."</p>  <p>"Sally was playing with her ball, then she got hungry, so Sally put her ball right in here [e.g., pointed to purple container], and went home. When Sally was gone, Ryan hid Sally's ball in a different spot! He may have hid it here, or here, or here" [e.g., pointed to yellow, red, and blue containers, respectively].</p> <p>Knowledgeable Trials: "But we know that he hid it here." [e.g., pointed to blue container]</p> <p>Non-Knowledgeable Trials: "But, we don't know where he hid it." Then, Sally came back. Where will Sally look for the ball?</p>	<p>The graphs below show children's performance on the false belief tasks across Knowledgeable and Non-Knowledgeable Trials. Scores reflect the number of trials that children passed across a total of two false belief tasks per trial type.</p> <p>Performance of all Participants on Knowledge Trials</p>  <p>Performance of Three year olds</p>  <p>Performance of Four year olds</p> 
<p>Method</p> <p>Participants N = 88 3- & 4- year olds (55% male) M = 3 years, 11 months; Range = 3, 0 - 4, 11</p> <p>Method In a within-subjects design, children were presented with four modified false belief tasks where a protagonist hid an object in one of four containers.</p> <p>In the absence of the protagonist, another character placed the object in a different container.</p> <p>In two tasks, children were told exactly where the object was hidden (<u>Knowledgeable Trials</u>).</p> <p>In the other two tasks, children were not told where the object was hidden (<u>Non-Knowledgeable Trials</u>).</p>	<p>Results</p> <p>Children were significantly more likely to pass the false belief tasks in the Non-Knowledgeable trials compared to the Knowledgeable trials, $Z = -2.59, p = .010$, non-directional, with a moderate effect size ($r = .28$), Wilcoxon Signed-Ranks Test.</p> <p>Examining the performance of 3- and 4-year-olds separately revealed:</p> <ul style="list-style-type: none"> 3-year-olds were significantly more accurate in the Not-Knowledgeable than Knowledgeable trials, $Z = -2.56, p = .011$, non-directional, with a moderate to large effect size ($r = .37$). 4-year-olds did not show a significant difference in performance across Knowledgeable and Non-Knowledgeable trials, $Z = -.87, p = .38$, non-directional. 	<p>Conclusions</p> <p>Young children are more accurate at making inferences about false beliefs when they do not have specific outcome information, compared to when they have specific outcome information.</p> <p>That is, when young children are not required to ignore specific outcome information, they are more likely to pass false belief tasks.</p> <p>We are not suggesting that the curse of knowledge is the only reason children find false belief tasks difficult.</p> <p>But, we demonstrate that classic false belief tasks are unnecessarily difficult and therefore will mask children's actual competence at false belief reasoning.</p> <p>Questions? siba.ghrear@psych.ubc.ca</p>