



Contents lists available at ScienceDirect

# Journal of Experimental Child Psychology

journal homepage: [www.elsevier.com/locate/jecp](http://www.elsevier.com/locate/jecp)



## Here is a hint! How children integrate reliable recommendations in their memory decisions



Diana Selmeczy\*, Simona Ghetti

Department of Psychology, University of California, Davis, Davis, CA 95616, USA  
Center for Mind and Brain, University of California, Davis, Davis, CA 95616, USA

### ARTICLE INFO

#### Article history:

Received 1 March 2018

Revised 1 August 2018

#### Keywords:

Metamemory  
Recognition memory  
Recognition bias  
Memory cues  
Signal detection theory  
Development  
Information-seeking

### ABSTRACT

Children's own memory is not the only reliable source of information about past events. Others may possess relevant knowledge, and children must learn to appropriately consider it in combination with their own memories. In the current study, we investigated 5-, 7-, and 9-year-olds' ( $N = 72$ ) ability to incorporate probabilistically reliable (70% accurate) hints into their memory decisions. Results revealed that children across ages were appropriately sensitive to these cues without following them blindly and indiscriminately. Furthermore, individual differences in metamemory monitoring predicted overall accuracy improvements after receiving cues in 9-year-olds but not in 5- and 7-year-olds, revealing a developmental role of metamemory for discerning when cues are most informative or needed. Although 5-year-olds increased overall confidence in their memory after receiving invalid cues, they still preserved the capacity to monitor their memory in the face of inaccurate information. Overall, children were sensitive to reliable recommendations, but developing metacognitive mechanisms predicted judicious benefits from cues.

© 2018 Elsevier Inc. All rights reserved.

### Introduction

Imagine Clark, a 9-year-old boy, who is picking out a book at a bookstore. He thinks he has not read the book before, but his mother suggests that, in fact, he has. Clark eventually realizes that he has read

\* Corresponding author at: Department of Psychology, University of California, Davis, Davis, CA 95616, USA.

E-mail address: [dselmeczy@ucdavis.edu](mailto:dselmeczy@ucdavis.edu) (D. Selmeczy).

the book and decides to pick a different one instead. In this scenario, Clark made a decision on considering two sources of information, his own memory and his mother's suggestion, both of which may be generally reliable but not perfectly accurate. Children often make memory decisions based on multiple relatively reliable sources of information, yet little is known about how these sources are factored into the decision process.

In the current study, we investigated whether and how children incorporate probabilistically reliable cues into their memory decisions. For example, if Clark thinks that his mother always remembers his past reading choices, it would be reasonable for him to follow her suggestion. However, Clark might recognize that even his mother makes mistakes sometimes such as when she mistakes events in his life with those of his siblings. Therefore, he should evaluate the quality of his own memory to determine when he should rely on others for his choices. We hypothesize that metamemory monitoring, or the ability to accurately self-reflect on one's own memory accuracy (Nelson, 1990), plays a critical role in this process. In other words, when Clark feels unsure about the accuracy of his memory, he should rely less on his own memory and more on the recommendation; in contrast, when he is sure he remembers accurately, he should instead rely more on his own memory and less on the recommendation.

Research with adult populations has shown that individuals with better metamemory monitoring benefit most from reliable external information (Konkel, Selmeczy, & Dobbins, 2015; Selmeczy & Dobbins, 2013). In children, previous literature has established that metamemory monitoring skills are evident as young as 5 years such that confidence is higher following correct responses as opposed to incorrect responses (Hembacher & Ghetti, 2014; Roebers, Gelhaar, & Schneider, 2004). These abilities improve throughout middle childhood and adolescence (Fandakova et al., 2017) and increasingly support decision making (Destan, Hembacher, Ghetti, & Roebers, 2014; Hembacher & Ghetti, 2013; Koriat & Ackerman, 2010). We predicted that such age-related improvements in metamemory also underlie children's ability to incorporate reliable external information in their memory decisions.

Previous work has investigated children's use of information provided by others during learning (Mills, 2013). Children as young as preschool age differentiate between reliable and unreliable informants and are more likely to learn new word labels for new objects from a reliable informant (Koenig & Harris, 2005; Pasquini, Corriveau, Koenig, & Harris, 2007). However, in these previous studies, metamemory monitoring was not as critical for children's decision to follow the informant's suggestion because children lacked previous knowledge about the target content. Thus, the decision of following the informant did not require a comparison between the quality of their own knowledge and that of the informant.

Eyewitness memory research provides additional insight on how children's reports may be influenced by external information (Bruck & Ceci, 1999; Ceci & Bruck, 1993). Children's memory is typically assessed after they received misleading or neutral information about an experienced event. Results show that misleading questioning reduces accuracy relative to neutral or unbiased questioning and that this difference is larger in younger children compared with older children and adults (Gordon, Baker-Ward, & Ornstein, 2001; Paz-Alonso & Goodman, 2016; Roebers & Schneider, 2000). Furthermore, metamemory monitoring is also shown to be altered following misleading questioning in children but not in adults (Roebers & Howie, 2003; Roebers, 2002). Although some eyewitness memory studies have included leading questions that suggested the correct answer, the overall accuracy of all suggestions was 50% at best (Schwarz & Roebers, 2006). Thus, the suggestions were not reliable overall, and the effects of these questions on memory performance were rarely measured separately for accurate and neutral suggestions (Roebers & Schneider, 2005; Roebers, 2002). These experimental choices are reasonable given the focus of these previous studies on the impact of misinformation on children's accuracy. However, these experimental designs do not allow for drawing proper inferences on how children adjust their decision processes in response to reliable information. The paradigm used in the current research was designed, instead, to assess the effects of reliable hints on changes in decision processes and potential accuracy gains.

### *The current study*

The goal of the current study was to examine how children incorporate probabilistically reliable information into their memory decisions and the metamemory mechanisms that support

Download English Version:

<https://daneshyari.com/en/article/11031382>

Download Persian Version:

<https://daneshyari.com/article/11031382>

[Daneshyari.com](https://daneshyari.com)