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# Children's skepticism: Developmental and individual differences in children's ability to detect and explain distorted claims

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ABSTRACT

The current study examined some key developmental and individual differences in how elementary school-aged children evaluate sources of information. A sample of 130 children ages 6 to 9 years participated in a task designed to measure children's understanding of ways that claims can be distorted (i.e., biased decisions, skewed self-reports, and misleading persuasive claims). Children also completed several individual difference measures, including a brief intelligence task and an advanced social cognition measure (interpretive theory of mind). Overall, older children were less trusting and better than younger children at explaining the reasons to doubt sources that might provide distorted claims. Crucially, the results also suggest that beyond age, both general intelligence and advanced social cognitive skills play roles in children's ability to understand when and why they must doubt sources of distortion.


"The most dangerous of all falsehoods is a slightly distorted truth."
—Georg Christoph Lichtenberg, *The Waste Books*

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Distortion is everywhere. A politician may claim that a policy will have long-lasting ill effects, purposefully exaggerating one minor weakness of that policy while ignoring the abundant strengths. A salesperson desiring to earn a commission may focus on emphasizing and exaggerating the strengths of his product while ignoring the weaknesses. A mother may insist that her son is the best soccer player on the field, ignoring the fact that a couple of other children are indeed a little bit faster and a little bit more talented. In each of these claims, the information provided is distorted from the truth, and although trusting distorted claims is sometimes harmless, it can also lead to a host of negative outcomes.

Unfortunately, distortions can be incredibly challenging to detect because recognizing them often requires reflecting on the intentions and motivations of the source. Yet the ability to recognize that someone is likely to provide a distorted claim should protect that person against manipulation or misinformation. For instance, understanding the goals and methods of advertisers may arm consumers—both children and adults—against misleading claims (e.g., Moses & Baldwin, 2005).

Despite the importance of this issue, there is a relative paucity of research examining the development of the ability to evaluate social sources of information (e.g., Heyman, 2008; Mills, 2013). The majority of the research focuses on preschool-aged children completing straightforward source evaluation tasks; for instance, children's trust in new claims by someone who has been clearly inaccurate or accurate in the past is assessed (e.g., Koenig & Harris, 2005). Certainly, preschool-aged children can recognize that information from social sources may be inaccurate due to deception (e.g., Mascaro & Sperber, 2009), the source's false belief (Flavell, 1999), or a history of past inaccuracy (e.g., Koenig & Harris, 2005; for reviews, see Clément, 2010; Mills, 2013). But much less is known about developments after the preschool years and involving more complex kinds of social sources such as ones that might provide distorted information. Moreover, evidence suggests that some children are better than others at recognizing when a source may provide distorted claims (e.g., Mills & Keil, 2008), yet even less is known about the factors that help children to more successfully evaluate social sources of information. Thus, the current study examined developmental and individual differences in understanding distortion.

There are countless ways that claims can be distorted, but research with children has focused primarily on three different types of distortion in separate lines of research: biased decisions, skewed self-reports, and persuasive claims (Grant & Mills, 2011; Heyman, Fu, & Lee, 2007; Heyman & Legare, 2005; Mills, Al-Jabari, & Archacki, 2012; Mills & Grant, 2009; Mills & Keil, 2005). With biased decisions, someone may make a decision based on extraneous factors, such as personal relationships, instead of the ones that should be considered when making that decision, such as accuracy. By 6 years of age, children understand that it is possible for someone to have been biased in favor or against someone based on preexisting relationships (e.g., someone might choose his undeserving best friend as the winner of a contest), but they do not think that it happens very often (Mills et al., 2012) and they struggle to recognize when someone has made or is likely to make a biased claim (Mills & Grant, 2009; Mills & Keil, 2008). By 8 years of age, children are more capable of detecting when bias may have skewed decisions (Mills & Grant, 2009), particularly if the bias involves negative relationships (e.g., a judge does not choose his enemy as the winner of a contest despite the enemy's excellent performance; Mills & Keil, 2008).

A second type of distortion examined in prior research relates to skewed self-reports. With skewed self-reports, people's claims are skewed by a desire to appear in a positive light. For instance, someone who wants to win a prize may provide a skewed claim about her performance in a contest, or someone who wants to be seen as intelligent may claim to be smarter than average, even if that is not actually true. By 8 years of age, children recognize that claims about one's achievements may be distorted; for instance, 8-year-olds, but not 6-year-olds, recognize that claims made with someone's self-interest are less likely to be trustworthy than claims made against someone's self-interest (Mills & Keil, 2005). Moreover, by 10 years of age (8-year-olds were not tested), children recognize that self-reports about highly evaluative traits (i.e., value-laden traits such as being smart or honest) might not be reliable (Heyman & Legare, 2005). Notably, 10-year-olds are not unilaterally skeptical toward self-reports; they are more accepting regarding self-reports about less value-laden traits such as being nervous or outgoing (also labeled comparison traits) because any degree of those traits is generally acceptable and thus not biased.