The beautiful and the accurate: Are children’s selective trust decisions biased?

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A R T I C L E   I N F O

Article history:
Received 12 March 2016
Revised 7 June 2016

Keywords:
Selective trust
Social transmission
Attractiveness bias
Accuracy
Learning
Testimony

A B S T R A C T

Recent findings imply that children rationally appraise potential informants; they weigh an informant’s past accuracy more heavily than other informant-based cues such as accent, age, and familiarity. Yet this conclusion contrasts with the more general conclusion that deliberate decision-making processes are heavily influenced by perceptual biases. We investigated 4- and 5-year-olds’ (N = 132) decisions about whether to trust a more versus less attractive informant when (a) both had a similar history of past accuracy or (b) the more attractive informant had been less accurate. Similarly, we investigated their decisions about whether to trust a more versus less accurate informant when (a) both were similarly attractive or (b) the more accurate informant was less attractive. Despite their sensitivity to past accuracy, children’s selective trust was clearly biased by the informant’s attractiveness. Relationships to previous findings and future implications are discussed.

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Introduction

Without cultural transmission, there would be no preservation and accumulation of knowledge. Cultural transmission allows us to swiftly acquire generic knowledge as well as knowledge about inaccessible, invisible, or cognitively opaque phenomena (Csibra & Gergely, 2009; Harris, 2012; Tomasello,
Indeed, we continuously rely on other people’s testimony in everyday life, be it in the form of expert opinions, user reviews, news, or the like (Harris & Koenig, 2006). However, this extensive reliance on testimony leaves children and adults vulnerable to accepting false claims made by ignorant or deceptive informants. To guard against such an outcome, the learner can do one of at least two different things: (a) evaluate the claim itself and reject it or accept it on the grounds of plausibility or (b) evaluate the informant and reject or accept his or her claim based on how trustworthy the informant is believed to be.

Fig. 1 depicts a model showing how these two processes could operate. Various factors might independently influence the appraisal of the informant and of his or her claims. The informant is appraised on the basis of his or her attributes, and the claim could be appraised either in terms of characteristics that are epistemically relevant (e.g., how the claim fits into existing knowledge structures, whether it violates the principles of logic) or in terms of characteristics that are not epistemically relevant (e.g., how assertively the claim is made). A claim that does not fit well into existing knowledge structures is most likely false, but the assertiveness with which it is made bears no direct relationship to its truth value.

Similarly, some informant attributes are associated with epistemic superiority (e.g., expertise, competence), whereas other attributes need not be reliably associated with epistemic superiority (e.g., familiarity, attractiveness). By definition, attributes that are not reliably associated with epistemic superiority cannot serve as a basis for distinguishing epistemically superior informants from epistemically inferior informants. However, those attributes can be used to distinguish trustworthy informants from untrustworthy informants in a more general sense. For example, a familiar informant is likely to be regarded as more trustworthy than a stranger in various contexts (e.g., see Wood, Kendal, & Flynn, 2013). The attribute of general trustworthiness, thus, can spill over to matters of epistemic nature. A learner can decide to accept information from a familiar informant not because the informant is more knowledgeable but rather because he or she is believed to act in the best interest of the learner.

Taken at face value, selective trust decisions made on the basis of previous accuracy appear to be fundamentally different from selective trust decisions made on the basis of certain informant-based attributes such as attractiveness and familiarity. The first and most important difference between the two types of decisions is that they are guided by two very different kinds of information, namely the informant’s epistemic status versus the informant’s epistemically irrelevant attributes. Another likely difference is that decisions made on the basis of previous accuracy involve an explicit appraisal of the informant. Evidence consistent with this speculation comes from a study showing that only children who correctly answered a series of questions about who was accurate and who was inaccurate during familiarization were able to exhibit a systematic preference for the more accurate informant on test trials. Conversely, children who answered those questions incorrectly showed no systematic preference. In other words, only children who had access to an explicit representation of the relative accuracy of the informants showed selective trust on test trials (Koenig, Clément, & Harris, 2004). On the other hand, decisions made on the basis of the informant’s attractiveness might not involve such an explicit appraisal. Rather, these decisions could be entirely driven by emotions or