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The influence of reputational concerns on children's prosociality Jan M Engelmann and Diotima J Rapp

While it is well known that reputational concerns promote prosociality in adults, their ontogenetic origins remain poorly understood. Here we review evidence suggesting that the first prosocial acts of young children are not aimed at gaining reputational credit. However, at approximately five years of age, children come to be concerned about their reputations, and their prosocial behaviors show the signature of self-promotional strategies: increased prosociality in public compared to private settings. In middle childhood, at around eight years of age, children acquire further abilities to control the image they project and start to reason explicitly about their reputation. We discuss potential social and cognitive factors — Partner Choice and Theory of Mind — that contribute to the developmental emergence of self-presentational behavior.

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'Reputation, reputation, reputation! Oh, I have lost my reputation', proclaims Cassio in Shakespeare's *Othello* [1], 'I have lost the immortal part of myself, and what remains is bestial.' Cassio intuitively understands an essential rule of human social life: Don't lose your reputation [2]. He is probably also right in asserting that human beings are unique in the animal kingdom with respect to their concern for reputation [3]. Reputation management is particularly relevant in the context of cooperation. One of the most reliable and best-documented findings in research on cooperation is that humans act more prosocially when their actions are public and their reputations are at stake [4*,5–11]. How and when do children first, like Cassio, realize the importance of the impressions they make on others, especially in the context of prosocial

behavior? Which cognitive and motivational factors are involved in children's emerging concern for reputation?

Reputation and reputation management Reputation

A reputation expresses a certain evaluation of a person's pattern of behavior as revelatory of their character. In the domain of prosociality, someone's reputation refers to an assessment by others of her prosocial skills and motivations, for example whether she usually treats others in a generous manner. Importantly, someone's reputation is not equivalent to any individual opinion [11,12°,13], but represents a group's collective and public judgment of a given person: It is a shared evaluation, anchored in common ground, of how 'we' think of someone. Conceptualizing reputation in this way clarifies the reasons for its profound social significance. Reputations come with the full weight of the collective and are created, maintained, and often destroyed by public discourse [11].

Reputation management

A person's reputation thus has important consequences for her relations with others. People with a prosocial reputation are sought after and admired; people with an antisocial reputation are shunned and condemned, and, at worst, ostracized from the group [6,14]. Individuals are aware of such potential consequences and engage in strategic behaviors to manipulate the impressions others form of them. Banerjee [15] defines reputation management as strategic behavior designed to control others' evaluations of the self, motivated by a concern about the way one is seen by other people (i.e. social evaluation concern). This by no means implies that investment in reputation is usually, or even mostly, a result of strategic and calculated deliberation. Indeed, human adults are often unaware of the audience cues that lead them to invest in their reputation [10]. In the following, we will review evidence for both implicit and explicit forms of concern for prosocial reputation in young children.

Evidence for children's reputational concern Early prosociality: no evidence for reputational motivation

Reputational theories of prosociality make one simple and straightforward primary prediction: higher levels of prosociality in the presence of others. Drawing on a small set of studies, we can preliminarily conclude that before the age of 5, this prediction does not seem to hold true for children's prosociality. Specifically, Warneken and Tomasello [16] found no effect of parental presence on young children's helping behavior. Twenty-fourmonth-old children helped at equal rates independently

of whether or not they were observed by their parent. Similarly, a study by Hepach et al. [17] shows that whether an adult recipient was present or absent did not increase children's likelihood of helping. Finally, Fu and colleagues [18°] tested how preschoolers' reputation influences subsequent norm compliance by first informing children about their alleged positive prosocial reputation and then confronting them with a temptation to cheat. There was no effect of this reputational manipulation on normcompliance in three-year-old children. While existing research suggests that young children do not adjust their prosocial behaviors in ways that improve their reputation, more research is needed to develop intuitive experimental paradigms to investigate reputational concerns in the first years of life.

Starting at age 5: implicit reputation management

A growing body of empirical research has provided evidence that from about five years of age young children care about and invest in their prosocial reputation. To start with, reputational concerns reduce children's likelihood of engaging in antisocial behaviors like cheating and stealing. When children are observed by an uninvolved same-aged peer, they are less likely to steal stickers from an absent second party [3]. Interestingly, even children's belief that they are in the presence of a watchful invisible person reduces cheating rates [19]. Moreover, there is evidence that, starting at age 5, young children refrain from cheating in order to maintain their positive reputation [18°]. On their own, these findings could be interpreted in terms of avoidance of punishment rather than concern for reputation. Other studies, however, have shown that children also show more prosocial behaviors when their actions are observed by others, supporting the argument that young children's behavioral change in public situations is best interpreted in terms of a desire to improve their reputation. Children at the age of 5 are more likely to choose a generous option when the recipient can see them [20,21]. Even stronger evidence for children's concern for prosocial reputation comes from studies where the recipient is absent and children are observed by an unaffected peer. Even in such cases fiveyear-old children share more of their resources ([3,22], but see [23,24]). Moreover, children this age do not only selectively behave more prosocially when they are observed, but are also sensitive to who specifically is watching them. If children are observed by members of their own (minimal) group or by individuals that have access to attractive resources, they show stronger concern for reputation and correspondingly higher levels of prosociality [25].

In summary, from around the age of 5 onwards, young children start tracking the impressions they make on others. Coupled with a motivation to appear prosocial, this burgeoning concern with social evaluation leads to children's investment in their reputation. From its start, children's concern for reputation flexibly integrates information about whether they are watched, who specifically is watching them, and which set of behaviors best creates a prosocial impression. While even these first impression management behaviors are remarkably flexible, it is only later in childhood that young children begin to reflect strategically on how other people might react to their actions and display even more flexible strategies to create and maintain a prosocial reputation.

Starting at age 8: explicit reputation management

In middle childhood, children start to reason about their own reputation explicitly, and begin to interpret others' behavior in terms of self-presentational motives [15,26–30]. Children around age 8 start to explicitly refer to self-presentational concerns when explaining behavior in front of an audience [27**]. For example, in an early study by Aloise-Young [26], eight-year-old, but not six-year-old, children used appropriate verbal selfpresentational strategies to maximize their chances of being recruited as a partner for a game. Furthermore, children flexibly tailor their reputational strategy — selfpromotion, ingratiation, modesty, disclaimer — to best create a positive and prosocial reputation [31].

Relatedly, children around this age show first signs of skepticism toward others' positive self-descriptions and a growing understanding of others' reputational strategies [30]. In a recent study, 8-10 year old children rated individuals who behaved prosocially in private more favorably than individuals who engaged in the same behavior in public (younger children, intriguingly, showed the opposite pattern), demonstrating sensitivity to potential ulterior motives in evaluating others' prosociality [32°].

Children's emerging concern for reputation is related to partner choice

What we have observed so far is that there are good grounds for thinking that around age 5, young children first show concern for reputation. How can we make sense of this developmental transition? Theoretical accounts of reputation single out processes of partner choice as key to the emergence of concern for reputation [11,12**,33**,34]. Because others engage in partner choice — and selectively interact with some partners over others based on their reputation — we feel pressure to invest in reputation. If no one recruited partners based on reputation, there would be no need to be concerned about social evaluation. Likewise, children's concern for reputation develops precisely at an age where they are first surrounded by relevant others that practice partner choice. During the first years of life, children almost exclusively form prosocial relationships that are characterized by the absence of partner choice: we do not choose our kin and usually do not have to fear their rejection. As children start forming long-term peer-to-peer relationships,

however, they increasingly enter into prosocial relationships that are based on choice. In our interpretation, it is the need to recruit social partners for choice-based prosocial relationships that provides the relevant context for the emergence of prosocial self-promotion. This view is consistent with the fact that children start forming friendships at around the same age that they start investing in their reputation [35]. In addition, the development of cognitive factors — particularly advances in theory of mind understanding — potentially influences children's emerging concern for reputation [15]. Creating a particular impression often involves thinking about what relevant others think of us. But without the relevant social pressures — partner-choice based social relationships these cognitive developments on their own would not lead to concern for reputation.

Reputation-motivated prosociality: which form of prosociality is selected?

Young children thus selectively attempt to appear prosocial once relevant others engage in partner-choice. But what is the best strategy to 'appear prosocial'? In other words, what sort of prosociality do reputational concerns select for — weak prosociality, fairness, or even hyperprosociality? At first glance, one might assume a positive linear correlation between prosocial giving and reputational gain: more giving = better prosocial reputation. On reflection, however, the relation between prosociality and reputation is better captured as an inverse U-shaped curve [12°]. Little giving and, maybe surprisingly, also extensive giving can cause reputational damage [36]. The latter phenomenon is referred to as do-gooder derogation [37]. The key to understanding the tendency to discredit do-gooders lies in the fact that one's reputation does not reflect an absolute value, but is always contingent on the reputations of members of an appropriate reference group [4°]. Whether one's reputation is positive or negative thus depends on social comparison with relevant others. Even one hyper-generous individual can make us look stingy and self-interested, and so we engage in various strategies of do-gooder derogation, like our common search for potential ulterior motives to explain hyper-generosity away. It thus seems that the best way to build a prosocial reputation is not to behave in an ultra-generous fashion, but rather to behave in a fair manner. Children seem to understand this intuitively and rarely share more than a fair split when they are observed [25]. In addition, children do not only attempt to appear generous in front of others, but specifically attempt to appear fair [38]. However, further research is needed to determine whether and in which contexts children actively attempt to forestall do-gooder derogation, for example by exhibiting modesty and falsely denying their own good deeds [39°].

Directions for future research

Four areas of research seem to be particularly promising. First, what is the impact of reputation-related emotions like shame and embarrassment on young children's prosociality? Second, how does the development of selfpresentation differ across cultures? Do children in some cultures — for example Asian cultures that place great emphasis on saving face — develop reputational concerns earlier than children socialized in cultures lacking this emphasis [39°]? Third, to what extent are children sensitive to the distinction between personal opinion and collective reputation? We know that young children contribute to others' reputations by engaging in prosocial gossip [40], but do they also understand that one's reputation goes beyond someone's personal opinion? Finally, which cognitive and motivational factors can explain individual differences in children's concern for reputation?

Conclusion

Young children exhibit a sophisticated understanding of the force of reputation. While infants and very young children's prosocial behaviors seem to be unaffected by self-presentational desires, reputational concerns begin to exert a strong impact on children's prosocial behavior during the preschool years. At least by age 5, children start developing an understanding that they are being judged by others with regard to their prosocial skills and motivations and so they adjust their behavior in order to affect those judgments. When their behavior is public and potentially relevant to their reputation, they cheat and steal less, help and share more, and generally attempt to appear fair. Strategic motivations for prosociality — like the concern for reputation documented here — develop early in ontogeny and constitute part of the puzzle explaining how humans came to be the ultra-cooperative species that we are.

Conflict of interest statement

Nothing declared.

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