ABSTRACT—Despite the fact that reputational concerns are central to human psychology, we know little about when and how children come to care about the evaluation of others. In this article, we review recent studies on reputational concerns in early childhood, and propose that evaluative audience perception (EAP) is necessary to understand the developmental origins of reputation. Specifically, we argue that EAP’s two defining components—the tendency to assume that others could evaluate one’s behavior and the default preference to elicit positive instead of negative evaluations—lay the foundation for the development of reputational concerns. We provide evidence suggesting that EAP would emerge by 24 months and conclude by suggesting possible developmental models of EAP.

KEYWORDS—reputation; audience effect; self-consciousness

Human behavior is greatly influenced by our concern with others’ evaluation. We buy makeup to cover perceivable flaws, fear speaking in public, and modify our behavior strategically when others are watching. This is arguably a unique human trait at the root of our peculiar preoccupation with reputation, which we define as calculating the impression we project to others (reputation comes from the Latin verb putare: to calculate; Rochat, 2013). Considering that reputational concerns are central to human psychology (Rochat, 2013, 2018; Silver & Shaw, 2018), recent studies have begun to explore the development of reputational concerns in 3- to 5-year-olds (Engelmann, Hermann, & Tomasello, 2018; Zhao, Heyman, Chen, & Lee, 2017). However, despite these efforts, we know little about when and how humans develop such unique concern for others’ potential evaluations (Silver & Shaw, 2018).

In this article, we propose that at the root of the human concern with reputation is evaluative audience perception (EAP). EAP is characterized by two basic propensities: the tendency to assume implicitly that one’s behavior or appearance could be or will be evaluated by others positively or negatively, and the default preference to elicit positive instead of negative evaluations (reactions or responses) from others (Botto & Rochat, 2018). We propose that children develop these two propensities before 24 months, and that these two components lay the developmental foundation for reputational concerns observed in the preschool years (Engelmann et al., 2012; Haun & Tomasello, 2011; Zhao et al., 2017).

To provide some background, we briefly review research on adults’ reputational tactics, and how these tactics have been used as a benchmark to investigate the emergence of reputational concerns in preschool children (e.g., strong conformity, lying). Then, we argue that such an approach eludes the question of when and how we come to care about others’ evaluations. We propose that EAP, as defined here, is crucial for the development of the human care for reputation. Taking a developmental perspective, we then describe how infants could develop EAP in the second year from the coalescence of their prior inclinations and capacities, including early dyadic and triadic abilities (affective attunement, joint attention, social referencing, and the development of an explicit awareness of self and others). Finally, we raise questions and outline testable models that could drive research on the role and development of EAP as a prerequisite of reputational concerns.

HOW ARE REPUTATIONAL CONCERNS MANIFESTED IN ADULTS AND CHILDREN?

In his seminal 1959 book, The Presentation of Self in Everyday Life, sociologist Ervin Goffman describes the human tendency to use various strategies to manage one’s image. Goffman uses the metaphor of a theatrical performance to describe individuals’
propensity to “act” in social interactions to manage their persona (Goffman, 1959). Since then, psychologists have documented adults’ reputation management through various tactics, including ingratiation (Jones, 1964), conformity (Asch, 1956), and self-presentation (Baumeister, 1982). Although these constructs go by different names, they all capture the significant effect of an audience on adults’ behavior. In public, compared to in private, adults tend to be more generous (Dana, Weber, & Kuang, 2007), make riskier investments (Goulart, da Costa, Andrade, & Santos, 2015), or conform to a majority opinion even if this opinion is blatantly wrong (Asch, 1956). These findings index how individuals strategically modify their behavior to manage their public image, and ultimately, their reputation.

While we have ample evidence that adults manage their reputation, only recently have we a handful of studies explored when children begin to display reputational concerns. Converging evidence shows that between ages 3 and 5 years, children’s reputational tactics begin to look similar to those of adults. In a replication of Asch’s (1956) classic study, Haun and Tomasello (2011) showed that 4-year-olds, like adults, tend to conform to a majority opinion in public, but not in private. By age 5, children expect someone who is ostracized and seeking affiliation with a group to strategically engage in strong conformity (Cordonier, Nettles, & Rochat, 2013). Five-year-olds also tend to be more generous (Engelmann et al., 2012; Leimgruber, Shaw, Santos, & Olson, 2012) and cheat less in the presence of an observer (Engelmann et al., 2012). Studies also suggest that by the end of the preschool years, children display sensitivity to reputational cues. For instance, in one study, when 5-year-olds were primed with a reputational clue (e.g., told that their peers thought positively about them), they were less likely to cheat than when they were not primed (Fu, Heyman, Qian, Guo, & Lee, 2016).

Other studies indicate that even 3-year-olds may be sensitive to reputational cues, sharing more when shown pictures of eyes than when shown pictures of flowers (Kelsey et al., 2018) and being more likely to cheat when told they have a reputation for being smart (Zhao et al., 2017). By 6–8 years, children’s attempts at managing their reputation become more explicit. They manifest modesty or flattery, or tell white lies to portray a certain image of themselves (Heyman, Fu, & Lee, 2008; Watling & Banerjee, 2007). In all, these studies suggest that from ages 3 to 4, children begin to be aware that their behavior is being or might be evaluated by others. They start making efforts to manage their reputation, efforts that become increasingly sophisticated with development.

**WHY IS EVALUATIVE AUDIENCE PERCEPTION IMPORTANT?**

Although research has captured when children begin to use reputational tactics, we know little about when and on what basis reputational concerns might develop. Specifically, how does an infant—who seemingly does not care about the slobber on her face—develop into an individual who will spend resources managing her image? One reason this question has remained largely unanswered is because researchers have used adult reputational tactics as a benchmark, including strong conformity and self-presentation, to investigate the development of reputational concerns in children. This approach fails to address the ontogenetic development of reputational concerns because adult reputational tactics entail higher-order cognitive processes, such as an advanced self-conceptualization, an understanding of standards and norms, and more importantly, an understanding that others’ judgments have social and affiliation consequences (e.g., being rejected; Rochat, 2018).

To mitigate this issue and address the ontogenetic question of reputational concerns, we need to reduce terms like reputation or self-presentation into their constitutive components. By analogy, and much like chemists who break down substances into elements to understand their fundamental properties, psychologists need to find the essential components of reputation and self-presentation to capture how humans come to care about others’ evaluation. Accordingly, to reduce these terms, we propose that the two components of EAP—our understanding that others can and will evaluate our behavior, and consequently, the concern for the valence (positive versus negative) of this potential evaluation—are necessary for reputational concerns to develop.

As an illustration, consider an individual engaging in self-presentation. Through words, behavior, or self-adornment, he tries to convey a particular image to others. However, for this behavior to be worthwhile, he must first understand that others can or will evaluate it. Otherwise, he would not need to use reputational tactics. Likewise, if the individual did not care about the valence of the potential evaluation, either positive or negative, he would not need to spend resources managing his image with adornment or by displaying more generosity when others are watching. The same logic applies to any forms of reputation management, from wearing makeup to telling white lies; all require both the basic ability to see others as evaluators and the tendency to care about the valence of the potential evaluation.

According to this rationale, we propose that the two components of EAP underlie reputational tactics, so children who engage in ingratiation or self-presentation, or who show reputational concerns, do so because they have developed EAP. This proposal offers a different perspective on studying the origins of reputation by shifting the focus from exploring when children begin to use adult reputational tactics to examining when and how infants begin to see others as evaluators of their own behavior. Such a perspective could elucidate the rudimentary prerequisites of reputation, as well as what allows this unique human trait to emerge in development.

Beyond providing a different developmental lens, EAP research might also address the reasons behind our general concern with others’ evaluation. Some psychologists suggest that humans care about reputation because it entails potential social...
consequences (Leary & Allen, 2011; Tomasello, 2018). Indeed, someone who is considered generous will be more liked and accepted in a group than someone who is stingy. But what about instances without clear social consequences? For example, an individual might hesitate to take more than one free sample at the grocery store to not appear greedy. This scenario does not yield any direct consequences, yet the thought of being evaluated might drive such behavior. Accordingly, the development of EAP could serve as a basic heuristic guiding behavior across contexts.

EAP is also distinct from behaving strategically to avoid punishment. While in some instances, concern for others’ positive or negative evaluations might be driven by the anticipation of potential positive or negative social consequences (e.g., gaining approval from others or being rejected), this concern cannot be driven simply by fear of punishment.1 As in our previous example regarding generosity, being more generous in public versus in private presumably is not motivated by fear of being punished, but by a concern for how others might evaluate and respond to generosity (or lack thereof). In this case, being generous might actually be rewarded, although this consequence is not guaranteed. Unlike fear of punishment, EAP captures the unique propensity to care about others’ potential evaluation, even in the absence of immediate positive or negative consequences.

Because we propose that EAP is the foundation for human concern for reputation, EAP should emerge prior to reputational concerns in preschool children. Next, we provide a developmental roadmap to how infants might develop EAP, and review recent evidence suggesting that this ability emerges by the second birthday.

**HOW AND WHEN MIGHT EVALUATIVE AUDIENCE PERCEPTION EMERGE IN DEVELOPMENT?**

Numerous studies point to the fact that social attunement is evident early in human life. From birth, infants look at and track faces significantly more frequently than other nonsocial stimuli (Johnson, Dziurawiec, Ellis, & Morton, 1991). By two months, infants demonstrate early sensitivity to others’ relative affective attunement in relation to the self, showing distress when face-to-face interactions with caregivers are no longer reciprocal and contingent (Tronick, Als, Adamson, Wise, & Brazelton, 1973). From 7 to 9 months, as infants gain marked postural independence and mobility, they also become more attuned to others’ emotional expressions in reference to novel and potentially risky situations (e.g., social referencing; Striano & Rochat, 2000). Also by 9 months, infants start to engage the attention of others in bouts of joint attention; they communicate by pointing toward objects in the environment, triangulating their own and another’s attention and perspective (Tomasello, 2018).

While it is clear that within the first year, infants are attuned to others’ emotional reactions regarding novel objects and shared experiences, it is not until the end of the second year that they begin to be attuned to the emotional reaction of others in relation to the self. For example, 18- to 21-month-olds often display embarrassment when they see their reflection in a mirror self-recognition task (Lewis, Sullivan, Stanger, & Weiss, 1989). Also around this age, infants start expressing embarrassment when publicly failing at a task (Stipek, Recchia, McClintic, & Lewis, 1992); they also start using personal pronouns (I or me; Lewis & Ramsay, 2004) and adjectives (pretty orucky; Stipek, Gralinski, & Kopp, 1990). Along with the development of explicit self-awareness, children also begin to consider others’ actions in relation to their own behavior. For example, by 24 months, toddlers who can recognize themselves in the mirror show early signs of conformity by leaving a mark that has been placed on their forehead if others also have a mark (Rochat, Broesch & Jayne, 2012). They will also not imitate an action if a third-party observer reacts negatively toward the action (Repacholi & Meltzoff, 2007). Furthermore, children around this age begin to manifest prosocial behavior, particularly if they are primed with social affiliation (e.g., if they see pictures of two characters standing next to each other; Over & Carpenter, 2009).

In theory, the conglomeration of these developments that are related to the self and others and observed toward the end of the second year could yield EAP. Specifically, both the early attunement to others’ emotional reaction represented in social referencing, joint attention, and prosocial behavior, and the development of an explicit self-awareness would underlie children’s emerging perception of others as evaluators of the self. Furthermore, if EAP enables the development of reputational concerns in the preschool years, then it should be observable by the end of the second year.

To probe this possibility, my colleague and I explored when children begin to strategically modify their behavior when observed by another (Botto & Rochat, 2018). In a novel paradigm, an experimenter showed 14- to 24-month-olds how to activate a toy robot by pressing a remote control and expressing either a positive value (e.g., Yay! Isn’t that great?) or a negative one (e.g., Oh! Oops, oh no!). After this initial demonstration, the experimenter invited the children to play with the remotes, and then either watched the children (attentive condition) or pretended to read a magazine (inattentive condition). Across four studies, toddlers tended to modify their behavior depending on whether the experimenter was watching, and whether she had positively or negatively valued the remote action. In particular, when the experimenter was watching, most children activated the remote associated with a positive value significantly more frequently. In contrast, if the experimenter previously expressed a negative value, most children waited until she turned her back to activate the remote. This selective behavior occurred in the

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1 As is stipulated in the literature, we define punishment as “the presentation of an aversive or the removal of a positive” stimulus to deter individuals from behaving in ways deemed unacceptable (Dadds & Salmon, 2003, p. 70).
absence of a potential punishment, since children's button-pressing behavior was never followed by an aversive consequence or reprimand. If children's behavior were motivated by a fear of punishment, we would have expected children not to use the negative remote, regardless of the condition, but this was not the case. These results also cast doubt on the possibility that children's behavior might be driven simply by a generalized positive or negative association with either remote. Again, children did not simply choose to play with the remote that yielded the positive reaction or avoid the remote that yielded the negative reaction; instead, they seemed to consider whether the experimenter was watching them when choosing to play with either remote.

These findings corroborate the idea that by the end of the second year, children are sensitive to how others react to their behavior, and modify their behavior depending on the relative attention of others and the values others express toward a situation or object of interest. These findings, along with all the other social-cognitive developments emerging in the second year, support the idea that by 24 months, children demonstrate the two defining elements of EAP: the tendency to implicitly assume that one's behavior or appearance could or will be evaluated by others either positively or negatively, and the default preference to elicit positive instead of negative evaluations (reactions or responses) from others. We propose that the combination of these two simple components allows for the development of reputational concerns in the preschool years.

QUESTIONS AND DIRECTIONS

We have proposed that EAP is a foundational prerequisite for the development of reputational concerns, but many questions remain. In particular, how sophisticated is EAP at 24 months? A lean interpretation might be that toddlers' strategic behavior is motivated by eliciting positive rather than negative affect from others. While this interpretation would suggest that children are sensitive to others' evaluations as we have defined them, it would not imply that children need to understand or anticipate another's evaluative judgments toward the self. Alternatively, a richer interpretation would be that by 24 months, children start to understand that others' emotional responses reflect a mental evaluation (as opposed to just an affective response, such as a smile). The latter interpretation would be supported by evidence that, by the end of the second year, children implicitly understand others' mental states (for a review, see Baillargeon et al., 2016). However, the level of cognitive sophistication of EAP in toddlers remains under discussion.

Another question is: What factors contribute to the emergence and development of EAP? One possibility is that EAP is the result of children's development of theory of mind (Wellman, 2017), self-concept (Lewis, 1992), and normativity (Rakocy & Schmidt, 2013). Such a model would suggest that these three social-cognitive abilities give rise to EAP and thus are prerequisites to EAP. From this perspective, children's interindividual differences in theory of mind abilities, self-awareness, and sensitivity to norms might also influence the extent to which children care about others' evaluation, and thus express reputational concerns (Chaplin & Norton, 2015). If this were the case, these social-cognitive capacities might explain major interindividual differences in the degree to which someone becomes sensitive to the evaluation of others. For example, while all people exhibit some sensitivity to others' evaluations, some might have an attenuated sensitivity, as in the case of people with autism spectrum disorder (Chevallier et al., 2014), while others may have heightened sensitivity, as in the case of socially anxious individuals (Schlenker & Leary, 1982).

Inversely, seeing others as evaluators, coupled with an inclination to garner positive evaluations (i.e., EAP), could drive the development of theory of mind and norm sensitivity. Indeed, if children are inclined to get positive evaluations from others, then they would be motivated to understand norms and the mental states of others. Accordingly, EAP would be an important mechanism driving social development. This model would also predict that theory of mind, self-concept, and norm sensitivity are critical factors to the development of reputational concerns between ages 2 and 4. Exploring all these theoretical alternatives will further elucidate the developmental underpinnings of reputational concerns and should therefore motivate research.

CONCLUSION

While burgeoning research has begun to uncover reputational concerns in early childhood, we know little about the ontogeny of these concerns. Our proposal that EAP is the foundation for reputational concerns offers two advantages. First, EAP's characteristics are rudimentary capacities, making it easier to probe sensitivity to the evaluation of others in early development and circumvent the higher-order features of reputational tactics. Second, our proposal generates testable hypotheses, some of which we have outlined here, that can stimulate research in an area that, until recently, has been neglected by developmental psychologists. Our concern with others' judgments is a central characteristic of human psychology. As such, it deserves much more empirical scrutiny.

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