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Infants' reasoning about social hierarchies: Key insights from the past 25 years and a research agenda for the next 25 years

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ABSTRACT

One of the most consequential discoveries about infant cognition and behavior in the past 25 years is the finding that infants appear able to perceive and reason about social hierarchies and social status. Yet, there are many important and fascinating questions yet to be answered. Here, we highlight major questions across three domains: conceptual, developmental, and applied. The *conceptual* questions concern the nature of infants' representations of social status. For example, what features of an individual or context do infants perceive as status-relevant, and how abstract are the ensuing representations that infants form? The second set of questions address the *development* of status-based cognition. How early do abstract representations of status hierarchies emerge and are they stable or variable across development and across different situational or cultural contexts? The final set of questions are *applied* and address how and when children map hierarchies onto real-world groups, and the consequences once they do so. For example, how do early conceptions and representations of status relate to the beliefs that children express about themselves and about others across development? Together, we hope that our review of the rich findings from the past 25 years, and our framework for addressing the remaining questions, may serve as a springboard for the next 25 years of research into the theoretically and practically rich question of how, when, and why infants develop their sophisticated capacities to reason about social hierarchies and social status.

Status hierarchies are ubiquitous; they are found in one form or another across cultures and across species (Cheney & Seyfarth, 2007). Moreover, the social status imposed on groups and individuals by these hierarchies permeates and shapes many aspects of people's lives, from where they live, to whom they're friends with, to their overall health and well-being (Marmot & Sapolsky, 2014; Sapolsky, 2005). Before 2000, most research on social status focused on adults, trying to understand how adults perceived and reasoned about social status and how aspects of social status shaped human lives. However, the ubiquity and influence of social status led researchers to wonder, might even the littlest humans perceive and reason about social status as well? Understanding the process by which individuals come to acquire and apply concepts of hierarchy and status to themselves and to those in their environment is important, both for deepening our understanding of conceptual development, as well as for shedding light on how we can improve people's lived experiences and pave the way for a more just, equitable world.

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1. Research between 2000 and 2025

Despite work from anthropologists and social psychologists exploring the perception and consequences of social status in non-humans and adults, there was no research investigating *infant* reasoning about social status before 2000. Fortunately, there has been an explosion of research on this topic in the past 25 years. Here, we briefly review key findings from the past two and a half decades, describing what we already know in order to establish what we still need to discover.

Infants are sensitive to multiple types of cues to social status and expect high-status actors to receive preferential treatment and resources

Thomsen et al. (2011) demonstrated that 10-month-old infants can use an agent's physical size to infer who would win in a zero-sum competition (i.e., a competition where two agent's goals come into conflict, and only one agent can achieve their goal). In this study, the infant observed two agents, who differed in size, both appear to have the same goal (e.g., both the smaller and larger agent wanted to cross to the other side of the stage). After being familiarized to these agent's goals, the infant viewed test events following a Violation-of-Expectation (VOE) procedure: after observing a conflict where both the large and small agent attempt to cross the stage simultaneously but bump into one another, infants see one agent move to the side allowing the other to succeed in their goal. Infants looked longer when the larger agent moved out of the way of the smaller agent than in the reverse situation, indicating increased interest and revealing the putative expectation that size is a proxy for status. Several important conditions controlling for perceptual alternatives bolster the authors' interpretation that longer looking duration when the smaller (vs. larger) agent prevailed is rooted in infants' expectations about hierarchical status based on agent size. Still, just as a debate published in this very same journal decades ago highlights (Haith, 1998 vs. Spelke, 1998), so-called "rich interpretations" where conceptual understanding is inferred from infants' looking-time patterns deserve scrutiny, converging results from many methodologies, and replications from other labs that can demonstrate the proposed phenomenon beyond the practical limitations that constrain sample size and population diversity in most infant work (Frank et al., 2017).

Thomsen et al.'s (2011) findings and research paradigm laid the foundation for studies exploring what other types of cues infants use to infer social status (reviewed in Pun et al., 2017). This line of research has been fruitful, establishing that infants by 6-months of age will use group size as a cue to status (Pun et al., 2016) and that by 12-months of age infants will also use physical location (e.g., being on higher ground: Meng et al., 2019) or the ability to move in "magical" and counterintuitive ways (e.g., hovering above the ground: Meng et al., 2021) as a cue to status.

Additional work has made a distinction between two separate pathways to high status attributions: dominance (status taken by force or threat of force) and prestige (status that is freely conferred by others) (see: Henrich & Gil-White, 2001; Mandalaywala, 2022). This work has examined whether infant reasoning about status also makes a distinction between status that is taken and status that is earned. This line of research is some of the newest in this arena, but several studies have shown that toddlers distinguish between physical dominance and prestige (e.g., when subordinate characters bow and obey instructions to "go to bed" without use of force) as young as 21-months-old (Margoni et al., 2018; Margoni & Thomsen, 2024) and also disprefer those who prevail in zero-sum interactions through brute force (Thomas et al., 2018; Thomas and Sarnecka, 2019).

Research has also built on the method from Thomsen et al. (2011) and Mascaro and Csibra (2012;14, see below) to assess whether infants or toddlers will use status hierarchies in one scenario to predict outcomes in a different scenario (e.g., if Agent A obtains a desired toy in Scenario 1, are infants surprised if Agent B obtains a desired place to sit in Scenario 2). This research finds that by 18-months-old, infants will use an agent's ability to successfully obtain resources as a marker of social status (Bas & Sebastian-Galles, 2021). Moreover, after seeing a zero-sum interaction, 17-month-old infants expect the higher status agent to receive more resources than the lower status agent, and infants are surprised when resources are distributed equally or when the lower status agent receives more (Enright et al., 2017).

1.1. Infants construct and mentally represent hierarchies

By 15-months-old, infants view social hierarchies as stable over time and context (Mascaro & Csibra, 2012) and find it easier to reason about linear (vs. circular) relationship structures (Mascaro & Csibra, 2014). Just how do infants extract information from dyadic interactions to construct more complex hierarchical structures? While existing data point in multiple potential directions, one promising answer seems to lie in infants' capacity to engage in transitive inference (i.e., the ability to infer unseen relations based on observed interactions between other characters, for example, seeing that A is stronger than B, and B is stronger than C, licenses the transitive inference that A is stronger than C). Between 10- and 16-months of age, infants display evidence for transitive inference in tasks assessing social relationships (Gazes et al., 2015; Mascaro & Csibra, 2014; Mou et al., 2014). This precocious capacity to engage in social transitive inference has been hypothesized to occur because infants are born with, or develop early on, heightened attention to social structures and hierarchies, an idea that has been proposed numerous times over the past 25 years (e.g., Pun et al., 2017; Thomas, 2025; Thomsen, 2020) and one that we explore in more detail in subsequent sections.

In what follows, we describe what we see as key questions yet to be answered within the study of infants' capacity to reason about status. Although we divide these questions by domain (conceptual, developmental, and applied), we note that the boundaries between these domains are fuzzy, with substantial overlap (e.g., understanding how infants grow into children who co-vary social status and real-world group membership (e.g., race, gender, etc.) is both a developmental and applied question).

2. Conceptual development and future directions

One set of questions that deserves attention in the next 25 years of research concerns the underlying nature of infants' representations of social status. For instance, how abstract are infants' representations of social hierarchies? Many of the cognitive prerequisites that infants must possess in order to succeed in the aforementioned studies about size dominance are well understood. For example, we know that infants are capable of representing the true size of an object through variations in perspective (Granrud, 2006; Slater et al., 1990) and to interpret the movements of animated characters as intentional and goal-directed (Gergely and Csibra, 2003). However, neither perceptual representations of an object's size nor the conceptual representations of an agents' goals are sufficient for supporting the hierarchical predictions that infants make in these zero-sum tasks. In this way, infants' representations of social hierarchy cannot be easily reduced. However, the level of abstraction is an open question, as is the precise format of the underlying representation and whether it differs depending on the type of cue that is being observed by the infant. For example, the features of size and physical strength may be represented in an iconic form like other aspects of 'core knowledge' (Carey, 2009; Thomas, 2025) whereas later developing attributions of status based on prestige may be represented symbolically, for example, through the acquisition of status-related language (e.g., "best" vs. "worst", "winner" vs. "loser"). Current evidence in support of this possibility comes from studies showing how infants' understanding of social dominance develops later than infants' understanding of social hierarchies based on physical characteristics (Bas & Sebastian-Galles, 2021).

A related question is whether the different cues that elicit hierarchical judgments in infants result in representations that are of same *kind*. In other words, do infants represent social dominance, *per se*, or do they represent physical dominance, separate from group dominance, separate from social influence, etc.? To our knowledge there are no studies that test whether there is one overarching representation of "dominance" that is abstracted away from the particular inputs. It has been tacitly assumed that cues such as vocal pitch, facial structure, prestige, and strength are all different inputs to the same underlying representation. However, it remains possible, in principle, that infants possess separate but parallel hierarchies for different dimensions that eventually coalesce across development, perhaps with the acquisition of status-related language. This question could be addressed by systematically testing whether social hierarchy cues of distinct types all exert influence on the one resulting representation by compounding (or undermining) evidence of an agents' status. Longitudinal studies would be well suited to answer the question of how language might 'pull together' representations that are found to operate separately earlier in development.

Regardless of whether infants possess a singular representation of status or multiple representations, an important related question is whether infants, within any given status hierarchy, represent social rank in a kind-based manner or whether dominance is represented in a more transient and context-dependent fashion. Studies have shown that infants expect social hierarchy relationships to be stable across two different types of events that infants observe in an experimental session (Mascaro & Csibra, 2012). What is still unknown is whether this stability is limited (or extends across individuals who belong to the same category) and whether any attributions of status are for specific individual members alone (or if status attributions can also be extended to group members). There is strong evidence that infants are capable of kind-based reasoning by at least 12 months of age and that infants possess the superordinate categories, "object," "agent," and possibly "artifact" (see Croteau et al., 2024, for a review). But to our knowledge there have not been any tests of whether infants possess kind representations related to status (either dominance or prestige) that might diagnose whether social status is represented as a causally "deep" property that would generalize to members of the same category. Preliminary research in children suggests that although 5- to 8-year-old children view status as a group-linked property (i.e., expecting status to be shared across group members), these same children did not perceive status as stable, heritable, or inherent (Mandalaywala, Lei, et al., 2020). Future research could investigate how infants generalize social hierarchy structure across different contexts and individuals, and whether infants express any proto-essentialist reasoning about social status.

Examining how infants' judgments about social hierarchies change in response to variable evidence may also help determine whether or not these representations are categorical in nature. For example, infants over the course of a day might observe their caregiver succeed in completing some goal several times only to observe a failure in some kind of event afterwards. In the face of such variability, would infants show a primacy effect (judging someone as dominant who demonstrates dominance during their first observation), a recency effect (judging someone as subordinate if they did not prevail in the most recent interaction), or do infants update their expectations about dominance in a rational and probabilistic way based on the total history of performance they have observed (see Xu & Kushnir, 2013 for a review)? Moreover, once infants have formed a status hierarchy representation for an individual, is their attention or memory biased to preferentially encode future input that *confirms* that representation (as has been found in social domains outside the realm of social status in children (e.g., Averhart & Bigler, 1997; Bigler & Liben, 1993) and adults (e.g., Cox et al., 2022)), or do infants preferentially encode and learn from information that *violates* their expectations, as has been shown in other domains (e.g., Stahl & Feigenson, 2015). Testing how infants' expectations adapt to conflicting evidence could help reveal the underlying nature of these social status representations as well as how they interact with mechanisms of social learning.

Finally, the early emergence of infant capacity to reason about social status makes sense when we consider the ubiquity and importance of social hierarchies across not just human societies, but across many non-human species as well. From fish (Grosenick et al., 2007) to baboons (Bergman et al., 2003), many non-human species possess the cognitive prerequisites that allow them to extract and organize status hierarchies based on observational data (e.g., using transitive inference to determine who is at the top of hierarchy: ring-tailed lemurs: Maclean et al., 2008; Pinyon jays: Paz-Y-Miño et al., 2004; corvids: Bond et al., 2003). This phylogenetic pattern suggests that human infants could be born with the capacity to extract and mentally represent status hierarchies. However, at present there is limited research exploring the true nature of infants' representations of social status, including precisely when it emerges as well as what aspects (if any) are cognitively hard-wired vs learned through experience.

Thus, exploring whether representations of social status and hierarchy are part of "core knowledge" is essential for understanding

the conceptual and developmental origins of these cognitive abilities and how they may continue to operate throughout adulthood. Core knowledge refers to innate, domain-specific knowledge systems that are present from early infancy (Spelke & Kinzler, 2007). Investigating whether infants' understanding of social hierarchy fits this framework could involve studies with adults: if social ranking is part of core knowledge, then we would predict that the sensitivities and signatures identified in work with infants should be identifiable in adults. Most interestingly, this infant work might predict that adults who are raised in cultural environments that endorse very different rules related to status (bowing vs not bowing) and make explicit judgments based on other cues, might revert to infant cues (that are culturally non-normative) under high attentional load or tested using a methodology that can expose implicit processing. For example, research on other socio-cognitive phenomena finds that young adults revert to childlike intuitions about gender essentialism when completing a standard essentialism task under speeded, high cognitive load conditions. This finding has been taken as evidence that adult-typical expressions of gender essentialism are a combination of the "true" (implicitly held, and sometimes socially undesirable) essentialist belief and explicit self-monitoring to align one's beliefs with more culturally desirable responses (i.e., less gender essentialism: Eidson & Coley, 2014). Although we are not aware of comparable work in the realm of social status or social hierarchy reasoning, there is excellent evidence that power and status are conceptualized and instantiated differently across cultures (e.g., Torelli et al., 2020). The extent to which these culture-specific instantiations of status and status reasoning share a common origin, and just how much is determined by environmental input across development, is a key question, and one that unites the conceptual and developmental questions and future directions proposed here.

3. Developmental questions and future directions

As alluded to above, our ability to clarify whether status reasoning represents a type of core knowledge relies, at least in part, on using developmental methods to ask developmental questions. Here, to complement the questions posed in the above "conceptual" section, we focus on questions that concern the emergence of the ability to extract and learn status hierarchies in infancy and the extent to which they depend on early social experiences or whether such expectations about rank are part of our biological inheritance as a social species.

One approach to addressing this question is determining the ages at which infants use various cues to form representations of social hierarchies, since discovering the "when" can sometimes help elucidate the "why". For example, we know that infants by 6 months of age will be able to predict who will be dominant or subordinate if the face-off involves groups of different sizes (Pun et al., 2016), but not until 10 months if it involves individual agents of different sizes (Thomsen et al., 2011), and not until 18 months of age if there is no physical contact involved at all (Bas & Sebastian-Galles, 2021). What might we conclude from this pattern? At first blush, this developmental sequence appears to be opposite of what infants might typically experience in the first 6 months of life (e.g., mostly seeing non-physical interactions between individuals, rather than group-based interactions). For this reason, the developmental cascade we observe related to physical dominance might favor theories of hierarchical representation grounded in core knowledge and evolutionary inheritance (Thomas, 2025). Of course, it will be important to examine whether similar developmental patterns can be observed for other cues to status (e.g., inferences based on vocal pitch, or facial appearance).

A second approach for addressing the developmental origins of hierarchical representations in infants is to study its development in other species. Would this comparative approach reveal similar sequences of sensitivity to status cues?

From a social learning perspective, the emergence of social hierarchies induced by physical conflict may make sense in the development of other animal species such as baby chicks that play fight to establish a 'pecking order' but less so for human infants who are relatively immobile and incapable of this type of interaction until many months after they have already demonstrated an understanding of such interactions. Controlled-rearing studies with baby-chicks (see Rosa Salva et al., 2011; Wood et al., 2024 for examples of this approach) and other species may be more capable of determining which social experiences early in life, if any, are required to develop expectations about physical dominance. For example, it is possible that baby chicks may develop expectations about physical dominance irrespective of any play fighting they themselves engage in or witness. If baby chicks and baby humans show the same pattern of development, it may be because individual and group differences in size have reliably predicted winners of competitions across evolutionary history.

A third approach is to explore the universality of infants' representations of social hierarchy. Are there cultural differences in how infants perceive and represent social hierarchy? While the basic perceptual mechanisms (e.g., responding to physical size) might have a universal basis—possibly reflecting evolutionary adaptations—the interpretation and social meaning of these cues may not be immune to cultural influences. For example, in cultures with more explicit hierarchical structures (Gobel & Miyamoto, 2024) infants might receive more frequent or pronounced demonstrations of dominance and submission through caregiver interactions and social routines. This could reinforce or even modify the innate biases that infants bring to their judgments about social hierarchies. Conversely, in societies that emphasize egalitarian values, the same cues might be less salient or interpreted in a less hierarchical way, potentially leading to subtle differences in how social hierarchy is represented as infants grow. These open questions highlight the limitations of basing theories about social hierarchy solely on WEIRD (Western, Educated, Industrialized, Rich, Democratic) populations (Henrich et al., 2010). Indeed, recent work has demonstrated how early sociocultural experience can change infants' expectations about the fairness of equal vs. unequal outcomes (Meristo & Zeidler, 2022). Analogous cross-cultural research is needed to pinpoint exactly how and when such cultural variations emerge and how they might affect judgments in the domain of reasoning about social hierarchies.

A fourth approach is to examine how stable (or variable) infants' representations of social status are across time. Longitudinal research could help answer at least two questions. First, once infants form a representation of a particular status hierarchy, do they expect that hierarchy to remain stable over time (i.e., are they surprised if members change status position)? Work in non-human

primates suggests that baboons expect status hierarchies (both intra-group and inter-group) to remain relatively stable, expressing surprise when they observe evidence of a dominance reversal (Bergman et al., 2003). Comparable research in human infants is lacking. Second, tracking infants' representations of status hierarchies over time could shed light on whether the features that infants view as important for signaling status change over development, and thus speak to the question of whether infant status representations are qualitatively different from status representations held in childhood, or even into adulthood. Additionally, combining a longitudinal with a cross-cultural approach can provide the best examination of how status representations form, including precisely what types of input are necessary or sufficient, and if there are specific developmental periods during which input is more impactful.

4. Applied questions and future directions

Adopting a cross-cultural approach is important because status hierarchies are found in nearly every human culture, but what it means to be the "best off" in society, which particular social groups occupy high status positions, and the barriers and opportunities for upward mobility all differ based on culture-specific norms, values, and histories. This creates a complex, but critical, landscape for infants and children to learn about. There is very limited research that examines if and how infants begin to integrate their early emerging representation of hierarchy with the social groups that they encounter during early development. This is a missed opportunity; infants—as described above—have the capacity for hierarchical representation and the capacity to identify and categorize people according to social group membership, at least for social categories that are locally relevant and salient (e.g., gender; Quinn et al., 2002; 2008; race: Bar-Haim et al., 2006). As young as 3.5-years-old, children in the United States begin to express gender stereotypes about social status, perceiving boys to have greater social power than girls (e.g., greater decision-making power: Mandalaywala et al., 2020) and similar beliefs emerge by age 6 in boy children in Japan (Meng et al., 2024). Around the same age, children across cultural contexts begin to express racial stereotypes about wealth, perceiving White people to have higher-quality resources than Black people (U.S.: Elenbaas & Killen, 2016; Mandalaywala et al., 2020; South Africa: Olson et al., 2012).

Current methods to assess awareness or expression of group-based beliefs about social status in young children do not rely exclusively on zero-sum vignettes as has infant research and thus allow children to provide responses where the expectation of equal status—and viewing the world in a non-zero-sum manner—is also possible. For example, these studies often train children to use a "ladder" to represent social status, teaching them what it means to be near the top, middle, or bottom of the ladder by providing information about any number of status cues, from wealth to social power to physical dominance to prestige (e.g., Amir et al., 2019). Children can then use this ladder to indicate the relative social status of specific people or groups (e.g., Mandalaywala et al., 2020; Marshall, Gollwitzer et al., 2022). Unfortunately, these methods are poorly designed for implementation with infants, in large part because they are highly linguistic. It is currently possible to assess infant awareness of group-based disparities in social status by using a variation on zero-sum vignettes. For example, when two actors, who vary in social group membership, come into conflict, who does the infant expect to prevail? However, without methods to assess infant beliefs and representations of status across a variety of dimensions and in a non-zero-sum context, we return to our previous conceptual and developmental questions about the nature of status representations across the lifespan and whether infant representations of social status are qualitatively similar or different to representations of status in childhood or adulthood.

Assuming that we develop more nuanced methods to measure and detect group-based beliefs in infancy, the next step will be to explore precisely what input infants (or children) receive that leads them to co-vary category members with social status. Children as young as 4- or 5-years-old are sensitive to nonverbal cues of status (e.g., body postures: Brey & Shutts, 2015; Terrizzi et al., 2019) and to material cues of wealth (e.g., Ahl & Dunham, 2019; Ahl et al., 2019); however, we know much less about what types of status-related cues infants are aware of, and if they use these cues to construct social hierarchies across real-world groups. Around 18- to 24-months-old, toddlers begin to display sensitivity to facial cues of dominance (e.g., more masculine features, such as a strong jawline and large facial width-to-height ratio: Galusca et al., 2023) and between 3- and 5-years-old, children begin to display adult-like judgements of dominance, competence, and trustworthiness from facial stimuli (Cogsdill et al., 2014). However, we lack several key pieces of data to construct a developmental picture, including: what types of status cues infants spontaneously attend to and encode, what status-relevant information or interactions infants actually see in the world around them, and if (and how) infants integrate these types of information. Recent research shows that 5-year-olds automatically encode several types of cues to social status, including occupational (i.e., janitorial vs. business attire) and quantitative (i.e., number of resources held) cues (Legaspi, Pareto, et al., 2023). However, research with infants, or even younger children, is lacking. Some interesting cross-species research suggests that both mice weanlings and young (3–6-year-old) human children pay special attention to acts of subordination (e.g., withdrawal during conflict interactions) when constructing social hierarchies (Chou et al., 2021). This cross-species similarity suggests that attention to who loses is an equally, if not more, important factor than who wins, and one that we should examine closely in early human development.

Clarifying if and how status representations in infancy are applied to real-world groups is crucial not just for advancing our understanding of the nature and development of status representations, but also for elucidating their implications. Previous research in children demonstrates the consequences of group-based beliefs about social status. Children as young as 4-years-old prefer to affiliate, and even share, with peers they perceive to be wealthier and higher in status (Ahl & Dunham, 2019; Shutts et al., 2016), and across cultural contexts, children who express racial stereotypes about social status show weak preferences for White peers (South Africa: Olson et al., 2012; Uganda: Marshall et al., 2022; U.S.: Mandalaywala et al., 2020) and even choose to perpetuate resource inequities by giving more resources to a hypothetical White (vs. Black) peer (Mandalaywala et al., 2021). Fortunately, there are a variety of infant-appropriate methods to assess social preferences and expectations about resource allocations (Schmidt & Sommerville, 2011; Sloane et al., 2012). Thus, if researchers can develop looking-time based methods to assess infants' beliefs about group-based disparities in social status, it should be straightforward to also assess if infants also show a tendency to prefer actors perceived as higher

status and if infants expect those higher status actors to receive more resources than lower status actors (as in Enright et al., 2017).

Last, but not least, is the question of if and how infants represent their own social status. Again, given the lack of research in infants, we start from work with children. These studies find that children tend to have highly positive views of their own status (Amir et al., 2019; Mandalaywala et al., 2020), only starting to align their subjective status with objective measures of socioeconomic status (SES) around 10 years of age (e.g., Amir et al., 2019; Mistry et al., 2015; but see Elenbaas, 2019 for some evidence that awareness of objective status could emerge as early as 3-years-old). While it seems unlikely that infant's representation of their own social status would align with external markers of social status, it would be interesting to explore whether infants' subjective status representations are stable over time, or variable across infants.

5. Conclusion

To end, we want to implore the researchers of today not to lose the momentum generated in the past 25 years. We currently have a remarkably good understanding of the cognitive capacities that undergird infants' ability to extract and construct status hierarchies, and—just slightly later in development—an understanding of the young child's ability and tendency to see their worlds, and the social actors in it, in terms of status hierarchies. This creates a solid foundation on which to rest the next 25 years of research, which we are confident will make great strides in answering the conceptual, developmental, and applied questions we pose here.

As described in the sections above, it is likely that new, multi-faceted methods are needed to answer the questions we pose here. For example, to investigate whether infants organize their social environment in terms of status because of a natural-born predisposition to do so, or because they develop in a world filled with salient status markers, we need high-quality data about the experiences and exposures that infants encounter in their everyday lives. This is something that cannot be captured in a single, one-shot experiment, and something that is likely to benefit from advances in our capacity to process and analyze large-scale data, such as video recordings of infant lives (as in the ongoing BabyView project: Long et al., 2024). Moreover, this research would rely on capturing the lives and cognition of infants who vary in their experiences, meaning that we cannot rely on samples of convenience, but must strategically recruit and work with families from diverse contexts. Infant cognition is already leaps and bounds ahead of other fields when it comes to implementing big team science (e.g., ManyBabies: Frank et al., 2017; Lucca, Yuen, et al., 2025; Schuwerk et al., 2025; Steffan, Zimmer, et al., 2024; Visser et al., n.d), meaning that the interest and infrastructure to envision and take on these types of methodological challenges are already in place.

Author statement

TMM and EC contributed equally to the conceptualization, writing (original draft), and writing (review and editing) of this manuscript.

CRedit authorship contribution statement

Erik Cheries: Writing – review & editing, Writing – original draft, Conceptualization. **Tara Marissa Mandalaywala:** Writing – review & editing, Writing – original draft, Conceptualization.

Declaration of Competing Interest

We have no known conflict of interest to disclose.

Data availability

No data was used for the research described in the article.

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