



# Precocious Prosociality: Why Do Young Children Help?

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**ABSTRACT**—*Human prosociality is marked by the versatility with which we help across various contexts. New research highlights that this capacity emerges early in human ontogeny. In this article, I review evidence showing that young children's helping is both flexible and robust, based upon inferential social-cognitive capacities and prosocial motivations. Then I discuss the possible evolutionary function of helping skills as an early-emerging trait. I use evolutionary theory and anthropological evidence to support the hypothesis that children's helping affects adult subsistence in traditional societies and argue that evolution thus might have favored an early developmental onset of these behaviors.*

**KEYWORDS**—*prosocial behavior; cooperation; altruism; empathy; evolution*

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Research from developmental and social psychology has shown that we sometimes help others out of prosocial motivations that are aimed at benefiting another person and lack a hidden, self-interest agenda (1, 2). That is, people might not be cold-hearted and selfish, but can be moved by a genuine desire to improve another person's situation. Beyond the motivations for prosocial behavior, another often-overlooked feature of human prosociality is the versatility and breadth of our prosocial repertoire. We can assist others in many different ways, from the simple act of lending a hammer to the complex task of repairing a computer, from gathering crops and preparing food to sharing abstract resources

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I want to thank Karen Kramer, Alexandra Rosati, and three anonymous reviewers for feedback, and Natalie Benjamin for editing. This work was supported by a National Science Foundation CAREER award and the Radcliffe Institute for Advanced Study.

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Child Development Perspectives © 2015 The Society for Research in Child Development

DOI: 10.1111/cdep.12101

like money. We have the cognitive flexibility to help in a variety of situations, even situations we have not encountered before.

Young children already possess the basic skills that define human prosociality. In this article, I provide evidence for the versatility of human prosociality as an early-emerging trait that can be witnessed in young children's helping behaviors. One essential component of children's versatile helping is a coupling of prosocial motivations with social-cognitive abilities to infer goals across variable and novel contexts. I also discuss how natural selection may have favored such helping behaviors to emerge early, rather than late, in ontogeny. I use evolutionary theory and anthropological evidence to support the hypothesis that young children's helping affects adult subsistence in traditional societies and therefore can provide inclusive fitness benefits to family members.

## YOUNG CHILDREN'S HELPING IS FLEXIBLE AND ROBUST

From early in life, children can help, and their ability to help with various types of problems rapidly increases with age. Starting between 12 and 18 months, children help pick up out-of-reach objects by bringing them to the person who dropped them, help put things away by holding open a cabinet door, and use their newly acquired skill to open a box when a person clumsily fails to retrieve an object from inside (3–9). Thus, children help in a variety of contexts, including situations they have never encountered. They can even help with a goal a person is trying but failing to achieve, without having seen the intended outcome. In all these cases, children differentiate intention from accident, intervening only if the outcome does not match the person's presumed goal (3, 4). Thus, children can infer other people's goals in various contexts and can decide when help is needed.

Young children make these inferences based on minimal cues. Specifically, children often help without anyone asking for help or explaining the problem. While verbal and nonverbal communication increases the likelihood that children will help, it is often unnecessary (3, 4, 7, 8). Indeed, children can help

even when behavioral cues are absent. In one study (9), children helped proactively by returning cans to a person who had not even noticed that they had rolled off a table. Starting at age 2, children helped reliably in this situation (and did not behave in the same way in matched controls in which no help was needed). Thus, without any behavioral cues from the person they were helping, children had to rely on situational cues and the person's previous responses to infer whether to help. Young children can also help in anticipation of a problem. In another study, when a person was mistaken about the actual location of a desired object, 18-month-olds directed her to the correct location before the person searched in the wrong spot (10), and in another context warned her not to reach into a bucket that contained an aversive object (11, 12). Thus, children could predict a person's action in light of the person's knowledge and intervene proactively.

Finally, children can correct a person's course of action and do what is actually helpful. For example, in one study, when a person requested a nonfunctional object (such as a cup with a hole), 3-year-olds handed over an intact object instead (13). Similarly, when an adult was unaware that a toy was no longer in the box he was struggling to open, 18-month-olds did not assist with opening that box, but fetched the object from the correct location (14). This type of response may be subserved by the attribution of false beliefs: In the study (11) mentioned earlier, children warned the protagonist about the bucket with the aversive object selectively when the person believed falsely that it contained the desired object (but pointed indiscriminately when she was ignorant). Thus, they inferred that only when holding a false belief would the adult likely take the undesirable course of action and therefore need to be warned. Taken together, these studies show that young children do not assist blindly in completing any action that another person pursues, but use their understanding of another person's ulterior goal when deciding how to help.

Young children's helping is not only flexible, but also robust. Children often help spontaneously without solicitation, and will put effort into helping by climbing over obstacles or disengaging from a fun activity to offer help (15, 16). They help when their parents are absent, showing that neither obedience to parental authority nor parental cues drive their helping (9, 16). In fact, children younger than 5 years do not seem to be concerned by whether they are being watched or acting in private, indicating that reputational effects are not foundational for prosocial behaviors (16–18). Moreover, young children help not only adults; they also help their peers (19–21). Furthermore, children seem to be genuinely motivated by the other person's goal, not by showing off their good will or by their mastery of the situation. For example, in a study that measured pupil dilation, 2-year-olds showed arousal when they witnessed a person failing to reach an object and the problem remained unresolved, but were relieved when the person received help and attained the goal, whether they or a bystander provided the help (22). Thus, children view the other

person's goal as critical, not their own helping or the opportunity to interact socially. Indeed, children's helping is not driven by praise or material rewards. In all the studies mentioned earlier, praise or rewards were either not used or had no facilitative effect (15). In fact, material rewards can be detrimental: Children who received a toy for helping were subsequently less likely to help spontaneously than children who had never been "paid" (23). Thus, children are often intrinsically motivated to help and external rewards can undermine this tendency.

Research on instrumental helping adds to approaches that view empathic responding as the basis of prosocial behavior. Martin Hoffman developed the most comprehensive theory of prosocial development to date. He proposed that human helping behaviors are based on a robust biological predisposition that motivates prosocial intervention, but is at the same time amenable to cognitive control and thus flexible (24, 25). For Hoffman, the core mechanism is empathic concern, the vicarious affective response that results from witnessing other people's distress. Research has validated the claim that empathy drives certain prosocial behavior in children (1) and adults (2). Nevertheless, this traditional approach can be limiting in its focus on affect as the mechanism that drives prosocial development. Although empathy is important for specific prosocial behaviors such as comforting, many helping behaviors might not be driven by empathic concern at all. In fact, recent studies found a dissociation between empathic responding to emotional distress and helping with instrumental needs in behavior (8, 26, 27) and the corresponding neural substrates (28). Thus, children help others with pragmatic goals, a behavior that neither targets nor is necessarily driven by affective processes.

In summary, at a very early age, children develop helping behaviors to address both the emotional needs and the pragmatic goals of others. In addition to the well-established emotional responses, the cognitive capacities to infer goals, represent people's epistemic states, and reason about intermediate steps to achieve ulterior goals contribute to a flexible and versatile repertoire of helping behaviors.

## THE FUNCTION OF AN EARLY CAPACITY FOR HELPING

While this new work targets the underlying psychological processes and tries to explain *how* children become able to help flexibly, we may also ask *why* children develop these helping skills early in ontogeny. As championed by Tinbergen (29), any given behavior should be analyzed in terms of its proximate mechanisms (e.g., how cognitive and motivational processes produce the behavior) and its evolutionary function (i.e., why a behavior may be favored in light of fitness consequences), which are complementary levels of explanation. What explains the ontogenetic timing of helping? Why would evolution favor such a repertoire of helping behaviors emerging early rather than late in human ontogeny? Consider three hypotheses.

**Hypothesis 1 (No Function): Early Helping as a Side Effect**  
Early helping may have no particular function at all. Skillful helping behaviors might not be important until adulthood, when they can support offspring and establish reciprocal relationships in meaningful ways. Children's precocious helping could be a side effect of general social-cognitive capacities that have emerged for other purposes, such as social learning, communication, or competition. Under this hypothesis, it is irrelevant whether helping behaviors emerge early or late in ontogeny.

**Hypothesis 2 (Different Function): Early Helping as Signaling**

Early helping may have a function, but that function may not be to actually benefit others prosocially. Specifically, children's so-called helping behaviors might not exist to further the goals of the person being helped, but to signal something about the helper. Similar to the inadvertently manipulative features of a child's *cute* features (the Kindchenschema) that arouse the caring instinct and entice adults to direct more resources toward babies, Karen Wynn (30) suggests that early helping behaviors might exist to elicit positive behaviors from others toward the helper. Wynn adds that while young children are adorable in their attempts to help adults, they often fail to provide meaningful help when it really matters. In fact, their helping attempts can sometimes obstruct when adults want to get a task done (31).

**Hypothesis 3 (Subsistence Function): Early Helpers at the Nest**

Early helping may serve an important function in ontogeny because of the way young children's helping affects adults. While children might not be that helpful in postindustrial, complex societies with occupational specialization and adult chores such as driving to the grocery store or filing taxes, children have an important role in societies more representative of traditional human life. The contributions of young children may be small, but the groundwork for participating in family chores is laid early in life and children's involvement increases with age.

Which of the three hypotheses best explains helping as an early-emerging trait? The first hypothesis—early helping as a side effect—is attractive because some of the social-cognitive abilities such as inferring intentions are also used for behaviors outside the domain of prosocial behavior, and perhaps even earlier in ontogeny. However, it fails to explain why cognitive and motivational processes would be coupled so robustly in young children, and it is a hypothesis of last resort if no plausible alternatives are available.

The second hypothesis—early helping as a manipulative signal—is favorable because it makes actual predictions. Specifically, it predicts that children should care about reputational effects from early on, that is, they should care more about the appearance than the reality of their helping. However, empirical evidence suggests the opposite conclusion, demonstrating that

early helping is aimed at benefiting others irrespective of reputational concerns. Moreover, helping would then be restricted to serving more powerful individuals as a submissive, ingratiating behavior, but children also help peers and younger children (19–21). We might conceive of early helping as carrying a signaling function *in addition to* its concrete effects on other people's actions, but this would make it an honest signal rather than a manipulative one (32). Overall, this suggests that early helping is not merely a signal, but a reflection of children's sincere attempts to be helpful.

The third hypothesis proposes that children not only attempt to be helpful, they actually are helpful—and in important ways. Evolutionary approaches to understanding human ontogeny emphasize that humans differ from other primates in the characteristics of their life histories (or the timing of key events such as the length of the juvenile period or first birth). In particular, humans' period of juvenile dependence is longer than in other apes, and human mothers experience shorter intervals between births (33). As a consequence, humans have many children with overlapping juvenile periods to take care of at any one time, so raising children is more expensive and socially complex for humans than for other primates.

Part of the solution to this challenge is that children begin to contribute to family and group life before they are independent (34). Children are not only consumers, but also producers. Concretely, in traditional societies with subsistence economies in which families forage, produce, and process their own food and are in charge of child care, young children contribute to subsistence, too, and contribute increasingly more over ontogeny. While infants only consume, children as young as 3 years contribute in small ways to the energy budget beyond what they consume themselves. According to anthropological data, the type of help depends on the respective ecology, with ample examples from agriculturalists and hunger-gatherers. Specifically, children haul water, collect and chop firewood, process food, deliver resources and messages, and take care of younger siblings (19, 34–37). For example, Maya parents would have to double their workload were it not for the contributions of juveniles (35). Therefore, juveniles contribute long before they begin to create a surplus during adolescence (35). This timing coincides with the competent helping behaviors identified in the experimental studies mentioned earlier. Therefore, young children provide an initially small contribution that increases rapidly as they grow older.

These anthropological observations highlight the variety of tasks that children carry out. These tasks call for skillful helping that adjusts flexibly to a variety of situations, including an understanding of goal-directed action while helping with instrumental tasks and being responsive to the needs and emotions of others when taking care of younger siblings (38). Experimental studies reveal that these basic competencies emerge in the first 3 years of life, and anthropological studies show that they are used in important ways soon thereafter. Children's learning curve is steep and they are involved increasingly in adult tasks,

highlighting the continuity between early and later helping. Thus, skillful helping is probably not a mere side effect of other competencies and does not function only as a signal for social traits without constituting genuine helping behaviors.

Ethnographic observations of children's behaviors also raise questions about the motivational basis of helping. While chores are frequently assigned by adults, if every part of a task (e.g., how to babysit a younger sibling) had to be micromanaged by an adult, it would not be left to children. Moreover, ethnographic observations show that an individual's prosocial tendencies are fairly consistent across contexts (e.g., being prosocial toward infants and peers) and are not dictated by the situation alone (19). Finally, these observational and correlational studies complement the new experimental work reviewed earlier, demonstrating that children are capable of skillful helping, often with minimal supervision. Young children display these basic helping behaviors spontaneously, not just to comply with a request. Thus, both comforting and instrumental helping are put to good use in early childhood, subserved by psychological capacities that enable behaviors to be both flexible and robust.

#### THE INTERPLAY OF BIOLOGICAL AND CULTURAL FACTORS

Understanding the evolutionary function of early helping behaviors requires that we look beyond the development of children in modern civilizations (39). In fact, the ecology of traditional societies is probably more representative of the ancestral social environment in which humans evolved (40). Correspondingly, this is often thought to be the evolutionarily more relevant context within which our psychological machinery evolved and equipped children with the competence for early helping. This would lead to the prediction that children possess a capacity for helping that can be elicited across cultural groups. In fact, in a cross-cultural study, children from Canada, India, and Peru began to help instrumentally as toddlers (41), corresponding to the age of onset reviewed earlier (Ref. 3 for children from Germany, Ref. 8 for children from the United States, and Ref. 27 for children from Canada). Moreover, similar rates of comforting behaviors were found for toddlers in Germany and India (42). Together, these studies tentatively suggest that the basic competence for helping is a more general feature of humans that emerges early in ontogeny.

Questions remain about the biological and social factors that contribute to the ontogenetic emergence of helping and how it relates to other prosocial behaviors, especially sharing resources. For reviews describing similarities and differences in the prosociality of humans and great apes, see (43–45). Consistent with my approach, this comparative work suggests deep phylogenetic roots of human prosociality, especially helping behaviors. Perhaps due to the new evolutionary context described here, these have led to a vast expansion of human prosocial tendencies. Concerning ontogeny, some approaches focus mainly on the adoption of social norms as the driver of

human prosociality (46). However, it has been argued for both instrumental helping (47) and empathic intervention (24, 25) that socialization practices likely build on biological predispositions for prosociality, but how these factors interact across early development is a topic for further study.

#### CONCLUSION

Children show sophisticated helping behaviors from early in their development. They display basic skills to instrumentally help others during toddlerhood, and rapidly progress in their ability to offer a helping hand across a range of situations. This raises the question about the evolutionary function that such an early emergence may serve, if any. I argue that early helping is neither a mere side effect of other social skills nor serves as a signal to simply draw more attention and resources to the child. Rather, I suggest that early helping behaviors are genuinely prosocial and serve an evolutionary function in humans. In support of this claim, I presented an evolutionary model of human ontogeny that posits that juvenile help might be essential for human subsistence. Although many humans today live in postindustrial societies, it is important to examine the ecology of traditional societies when considering the factors that have shaped human evolution. In traditional societies, families depend on help from their offspring, with children's contributions to subsistence starting early and expanding over development. This might have provided the evolutionarily relevant context in which humans became the precocious helpers that they are today.

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