

Not Noble Savages After All: Limits to Early Altruism

Karen Wynn, Paul Bloom, Ashley Jordan, Julia Marshall, and Mark Sheskin

Department of Psychology, Yale University

Current Directions in Psychological Science

1–6

© The Author(s) 2017

Reprints and permissions:

sagepub.com/journalsPermissions.nav

DOI: 10.1177/0963721417734875

www.psychologicalscience.org/CDPS



Abstract

Many scholars draw on evidence from evolutionary biology, behavioral economics, and infant research to argue that humans are “noble savages,” endowed with indiscriminate kindness. We believe this is mistaken. While there is evidence for an early-emerging moral sense—even infants recognize and favor instances of fairness and kindness among third parties—altruistic behaviors are selective from the start. Babies and young children favor people who have been kind to them in the past and favor familiar individuals over strangers. They hold strong biases for in-group over out-group members and for themselves over others, and indeed are more unequivocally selfish than older children and adults. Much of what is most impressive about adult morality arises not through inborn capacities but through a fraught developmental process that involves exposure to culture and the exercise of rationality.

Keywords

morality, development, altruism

In *Leviathan*, Thomas Hobbes (1651/2006) famously claimed that humans are born selfish and vicious—in the absence of cultural rules and societal restraints, life is “solitary, poor, nasty, brutish, and short” (pp. 102). This view was echoed and developed by psychologists such as Freud, Piaget, and Kohlberg, who argued that kindness and morality do not come naturally to us.

While there are still some Hobbesians left in psychology, the balance has shifted over the last few decades. Many scholars instead endorse the position of Hobbes’s critic, Jean-Jacques Rousseau, who defended the notion of the *noble savage*. For Rousseau, the state of nature would not be total war; rather, in the state of nature, compassion “takes the place of Laws, morals, and virtue, with the advantage that no one is tempted to disobey its gentle voice” (p. 154). This kinder view is grounded in findings from many fields. Evolutionary biologists have discovered the adaptive logic behind altruistic behavior toward relatives (kin selection) and people with whom we frequently interact (reciprocal altruism; e.g., Axelrod, 1987). Social psychologists and social neuroscientists have identified specialized neural systems that underlie compassion and altruism (e.g., Zaki, López, & Mitchell, 2014). And behavioral economists have shown that people are motivated by

concerns such as fairness and reciprocity (see Starmans, Sheskin, & Bloom, 2017, for a review).

Much of the swing from Hobbes to Rousseau has been driven by findings from developmental psychology. Human babies are sensitive to the pain of other people, and, as soon as they are able, they often attempt to assuage suffering—1-year-olds soothe other people in distress by stroking and touching or by handing over a bottle or toy (see Hoffman, 2001, for a review). Warneken and Tomasello (2006) found that toddlers who witness adults struggling to do something (such as open a cabinet door when their hands are full) tend spontaneously to help. Explicitly rewarding them for doing so reduces this tendency, suggesting that helping is inherently rewarding. Warneken and Tomasello (2009) conclude that we begin our lives as “rather indiscriminate altruists” (p. 466)—our kindness begins as a general orientation toward all. They suggest that as children’s understanding develops and they acquire more experience, they become better able to act

Corresponding Author:

Karen Wynn, Department of Psychology, Yale University, Box 208205, New Haven, CT 06520-8205
E-mail: karen.wynn@yale.edu

altruistically—“but this should not just blindly lead to more helping, but more selective helping” (p. 466).

In the remainder of this brief article, we swing the pendulum back a bit toward Hobbes. Although young humans possess a surprisingly rich moral sense (as reviewed in the following section), their initial sociality and morality are selective. They naturally favor people whom they see as good individuals and who fall into their social groups, and they wrestle with prejudice and self-interest. Babies and young children are, at best, *selective* altruists.

Evidence for a Moral Sense

There are two general ways in which bias can manifest itself. One is in the choice as to whether and how to interact with a single individual (so-called *partner fidelity* or *partner control*); the other is in the choice of who to interact with from a group of two or more individuals (*partner choice*). Many of the anti-Hobbesian findings reviewed above come from studies that focused on partner fidelity; many of the findings we discuss below—on moral cognition in general and on moral biases in particular—come from studies that looked at partner choice.

Across many studies, we have demonstrated that infants prefer individuals who are kind to others, all else being equal (e.g., Hamlin & Wynn, 2011; Hamlin, Wynn, & Bloom, 2007; see Wynn & Bloom, 2013, for a review). In these studies, infants repeatedly witness a puppet protagonist attempting to complete a task (e.g., climb a hill, open a box). On some trials, a helper facilitates the protagonist's efforts; on other trials, a hinderer thwarts the protagonist's efforts. When then given a choice between the two, infants demonstrate a robust reaching preference for the helper. And even 3-month-old infants, not yet capable of reliable reaching, visually orient strongly toward the helper (Hamlin, Wynn, & Bloom, 2010). Further work shows the strength of infants' preference for nice over mean characters. Infants willingly incur material costs to interact with the former rather than the latter, accepting small offerings from nice characters instead of larger offerings from mean ones (though they will accept the latter if the difference in offerings is extreme; Tasimi & Wynn, 2016).

In addition to recognizing both nice and mean social actions, young humans recognize and value fair actions over unfair ones. Toddlers as young as 15 months expect other people to distribute resources equitably to third parties (Sloane, Baillargeon, & Premack, 2012; Sommerville, Schmidt, Yun, & Burns, 2013) and prefer fair to unfair sharers (Geraci & Surian, 2011). Although younger infants do not show these patterns (Geraci &

Surian, 2011; Sommerville et al., 2013), their presence in toddlers who are still largely preverbal suggests that fairness is a concept ready to be activated by experience.

Interestingly, young children are not categorically opposed to harm. Even infants approve of harmful acts directed toward characters who have acted badly, and toddlers will mete out rewards and punishments appropriately, preferentially giving treats to helpful characters and taking treats away from harmful characters (Hamlin, Wynn, Bloom, & Mahajan, 2011). Six-year-old children willingly incur costs to punish selfish out-group members, and 8-year-olds punish antisocial actions, even those committed by in-group members (Jordan, McAuliffe, & Warneken, 2014).

Selective Helping

Developmental psychologists have long been fascinated by altruism in toddlers and young children, and over the last several decades there have been many anecdotes and studies showing spontaneous helping (see Bloom, 2013, for a review). Interestingly, though, this helping is selective in important ways.

First, helping is influenced by the past behavior of the other individual. In one set of studies, 21-month-olds sat across from two experimenters, each of whom held out a toy. Neither toy got to the toddler, however, because one of the experimenters was teasing and refused to release it, while the other experimenter tried to give it to the child but dropped it. When toddlers subsequently got their own toy, the two experimenters simultaneously requested it; toddlers preferentially gave it to the one who had tried to give them a toy, not to the one who had teased them (Dunfield & Kuhlmeier, 2010). And 3-year-olds are more likely to help someone who has previously helped someone else and less likely to help someone who has been cruel to another person (or even who had harmful intentions), suggesting that a toddler's inclination to help someone is contingent on a general moral evaluation, not just personal experience with that person (Vaish, Carpenter, & Tomasello, 2010).¹

Second, helping is influenced by the nature of prior interactions. Indeed, before about the age of 4 years, children show little spontaneous kindness toward strangers (see Bloom, 2013, for a review). This might be surprising, given the experimental demonstrations in which children do help, but it is critical to realize that the adults in these studies are not wholly unfamiliar. Typically, before these studies begin, the child (along with his or her parent) interacts with the experimenter in a warm-up session, and the nature of these interactions makes a difference. In one study, when child and experimenter engaged in friendly reciprocal

activities such as rolling a ball back and forth, children's subsequent helping behavior was quite high; in the absence of this sort of reciprocal interaction—just a friendly greeting by the adult and warm thanks for agreeing to participate—the extent of helping dropped by about half (Barragan & Dweck, 2014; but see Hepach et al., 2016). If there were no prior interactions at all—if the adult were a true stranger at the moment that she or he needed help—we suspect there would be little or no spontaneous kindness at all on the part of the child.

Discrimination on the Basis of Group

Perhaps the major finding of all of social psychology—and the human sciences more generally—is our group-mindedness, the extent to which we favor “us” over “them.” Developmentally, this begins with a simple preference for the familiar. Babies prefer to look at their mothers' faces over strangers' faces (e.g., Bushnell, 2001) and prefer to look at faces of those who belong to the race they encounter most often (e.g., Bar-Haim, Ziv, Lamy, & Hodes, 2006). Babies prefer individuals who speak their native language over those who speak a foreign language or who speak with a foreign accent (see Kinzler, Shutts, & Correll, 2010, for a review). As they grow older, they prefer to share resources with other individuals who speak the same language (Kinzler et al., 2010).

The most striking example of children's eagerness to engage in us/them categorization comes from studies building on Henri Tajfel's classic work on the formation of *minimal groups* in adults (e.g., Tajfel, Billig, Bundy, & Flament, 1971). Children, like adults, favor their own group over others, even when the group is established on the most minimal and arbitrary basis, such as children in a classroom being randomly assigned red versus blue T-shirts or handed differently colored stickers (e.g., Baron & Dunham, 2015).

Some of our own work suggests that homophily—our love of the similar—is a critical force in this early categorization (see Wynn, 2016, for a review). In a number of studies, we gave babies under a year of age a choice between two options (e.g., two colors of mittens). Babies then viewed a show in which two puppets also chose between these items: One chose the same item the baby did and expressed dislike of the other option, and one expressed dislike of the item the baby chose and a liking for the other item. When encouraged to reach for one of the puppets, over 80% of babies preferred the individual who chose as they themselves had done (Mahajan & Wynn, 2012). Not only do infants prefer individuals who share their views, but they also appear actively to dislike those with different views

from them, preferring a puppet who harms such an other-minded individual to one who helps (Hamlin, Mahajan, Liberman, & Wynn, 2013). Indeed, further findings suggest that babies are driven more by a desire to see other-minded individuals treated poorly than to see like-minded individuals treated well (Hamlin et al., 2013).

Self and Other

While one important contrast is between us and them, another is between “me” and “everyone else.” Altruistic considerations often compete with our self-interests. A child might recognize that giving a toy to another child can increase the other's welfare, but few children will do this with a toy they are enjoying themselves. Similarly, few adults, on finding a hundred-dollar bill on the street, would hand it over to the next person who walked by. With the interesting exception of very close kin, people typically value themselves over others. This is reflected in a large body of research utilizing various economic games. One example is the dictator game, in which participants can split a sum of money with a stranger however they please; a recent meta-analysis found that more than 70% of people keep most of the money for themselves (Engel, 2011; see also Levitt & List, 2007).

Early childhood is a time when the balance is strongly in favor of selfishness. Young children have no theological or philosophical commitments driving them to care about the good of others. Furthermore, because they do not actively engage in collaborative enterprises to the extent that older people do, they gain less than older humans from a good moral reputation and are therefore freer to express self-maximizing motivations (Sheskin, Chevallier, Lambert, & Baumard, 2014). Building on work showing that young children's fairness behavior emerges slowly (e.g., Benenson, Pascoe, & Radmore, 2007), two recent cross-cultural studies on children's sharing found that across disparate cultures and lifestyles, children are self-interested, and the emergence of equitable sharing comes with development and cultural exposure (House et al., 2013; Rochat et al., 2009).

There are sometimes advantages to being at a relative advantage over others, even if it does not maximize one's absolute welfare (as captured in the joke about the two campers fleeing from a bear: “I don't have to outrun the bear, I just have to outrun you”). Young children seek out relative advantage, as shown in a set of studies we conducted. We gave children a choice between two possible allocations of resources to themselves and another child, a fair allocation (“two resources each”) and an unfair one that put the

participant at an advantage (“two for self and one for other”). Children under 7 years of age predominantly chose the latter option (Sheskin, Bloom, & Wynn, 2014). Indeed, this preference for relative advantage was so strong that many children spitefully opted for allocations that gave them a relative advantage over ones that gave them a greater absolute amount (i.e., choosing a distribution of “one for self and zero for other” over “two each”). It is only at older ages that these preferences give way to a robust favoring of equal distributions; older children become more likely to behave fairly as the early-emerging preference for relative self-advantage is partially counteracted by an increasing endorsement of principles of fairness and generosity (for a review, see McAuliffe, Blake, Steinbeis, & Warneken, 2017).

Indeed, even children who choose numerical equality will often look for opportunities to gain a relative advantage. For example, when asked to allocate four toys of varying quality among themselves and others, 6- to 8-year-olds often allocate them with numerical equality but qualitative inequality, dividing the toys “two each,” thus numerically satisfying the social prescription of fairness, but taking both higher-quality toys for themselves (Sheskin et al., 2016). Finally, children’s general preference for generous individuals over stingy ones decreases when those individuals outshine the children’s own levels of generosity, placing them at a reputational disadvantage (Tasimi, Dominguez, & Wynn, 2015).

Conclusion

We are impressed by demonstrations of altruism in babies and toddlers, but this might be because we start off expecting so little. The reality is that their altruism is selective, which should not be surprising, as this is also true of adults. Certain moral biases remain stable across development. But perhaps more surprisingly, babies and toddlers discriminate in ways that many of us reject as adults (e.g., on the basis of accent) and are also more selfish than adults. These facts illustrate something that many moral nativists miss, which is the extent to which our culture and rationality can—at least some of the time—lead us to transcend our initial biases (see also Bloom, 2016). And this leads to profound changes in our moral understanding and moral actions as we develop.

We agree, then, with the many researchers proposing an innate basis for human morality—indeed, our own research points toward this conclusion. But human nature is multifaceted from the very first, and so we find ourselves agreeing also with the biologist Richard Dawkins, who wrote, “Be warned that if you wish, as

I do, to build a society in which individuals cooperate generously and unselfishly towards a common good, you can expect little help from biological nature” (Dawkins, 1989, pp. 3–4). Or as a character in a Kingsley Amis novel once put it, “It was no wonder that people were so horrible when they started life as children” (Amis, 1963/2013, p. 135).

Recommended Reading

- Bloom, P. (2013). (See References). An extensive and accessible overview of the origins and development of moral and prosocial sentiments in humans.
- Hoffman, M. L. (2001). (See References). An in-depth look at young children’s acts of empathy and expressions of concern for others.
- Sheskin, M., Chevallier, C., Lambert, S., & Baumard, N. (2014). (See References). A life-history theory of moral development in more detail than the current article can accommodate.
- Wynn, K. (2016). (See References). A review of the findings of infants’ preference for similar-minded others in more detail than the current article and a discussion of their societal implications.

Acknowledgments

We are grateful to an anonymous reviewer and Felix Warneken for helpful comments on an earlier version of this manuscript.

Declaration of Conflicting Interests

The author(s) declared that there were no conflicts of interest with respect to the authorship or the publication of this article.

Funding

Our own work described in this article was supported by National Science Foundation Grant Nos. BCS-0715557 and BCS-0921515, National Institute of Mental Health Grant No. R01 MH 081877, and John Templeton Foundation grants to K. Wynn and P. Bloom.

Note

1. Much of the research we describe here looks at children’s initial responses, and it is worth noting that some studies show that these preferences change or disappear on subsequent trials (e.g., Dahl et al., 2013; Vaish et al., 2010). We do not see such shifts as challenging the bias account, however. There are many reasons why a very real preference for A over B could disappear in later trials. These include fairness motivations—having helped one individual on Trial 1, the child might think it is only fair to help the other on Trial 2—as well as concerns about the pragmatics of being repeatedly asked the same question, which tends to push children (and adults) toward changing their answers.

References

- Amis, K. (2013). *One fat Englishman*. New York, NY: New York Review Books. (Original work published 1963)
- Axelrod, R. (1987). The evolution of strategies in the iterated prisoner's dilemma. In C. Bicchieri, R. Jeffrey, & B. Skyrms (Eds.), *The dynamics of norms* (pp. 1–16). New York, NY: Cambridge University Press.
- Bar-Haim, Y., Ziv, T., Lamy, D., & Hodes, R. M. (2006). Nature and nurture in own-race face processing. *Psychological Science, 17*, 159–163.
- Baron, A. S., & Dunham, Y. (2015). Representing 'us' and 'them': Building blocks of intergroup cognition. *Journal of Cognition and Development, 16*, 780–801.
- Barragan, R. C., & Dweck, C. S. (2014). Rethinking natural altruism: Simple reciprocal interactions trigger children's benevolence. *Proceedings of the National Academy of Sciences, USA, 111*, 17071–17074.
- Benenson, J. F., Pascoe, J., & Radmore, N. (2007). Children's altruistic behavior in the dictator game. *Evolution & Human Behavior, 28*, 168–175.
- Bloom, P. (2013). *Just babies: The origins of good and evil*. New York, NY: Crown.
- Bloom, P. (2016). *Against empathy: The case for rational compassion*. New York, NY: Ecco.
- Bushnell, I. W. R. (2001). Mother's face recognition in newborn infants: Learning and memory. *Infant and Child Development, 10*, 67–74.
- Dahl, A., Schuck, R. K., & Campos, J. J. (2013). Do young toddlers act on their social preferences? *Developmental Psychology, 49*, 1964–1970.
- Dawkins, R. (1989). *The selfish gene*. New York, NY: Oxford University Press.
- Dunfield, K. A., & Kuhlmeier, V. A. (2010). Intention-mediated selective helping in infancy. *Psychological Science, 21*, 523–527.
- Engel, C. (2011). Dictator games: A meta study. *Experimental Economics, 14*, 583–610.
- Geraci, A., & Surian, L. (2011). The developmental roots of fairness: Infants' reactions to equal and unequal distributions of resources. *Developmental Science, 14*, 1012–1020.
- Hamlin, J. K., Mahajan, N., Liberman, Z., & Wynn, K. (2013). Not like me = bad: Infants prefer those who harm dissimilar others. *Psychological Science, 24*, 589–594.
- Hamlin, J. K., & Wynn, K. (2011). Young infants prefer prosocial to antisocial others. *Cognitive Development, 26*, 30–39.
- Hamlin, J. K., Wynn, K., & Bloom, P. (2007). Social evaluation by preverbal infants. *Nature, 450*, 557–559.
- Hamlin, J. K., Wynn, K., & Bloom, P. (2010). Three-month-old infants show a negativity bias in social evaluation. *Developmental Science, 13*, 923–929.
- Hamlin, J. K., Wynn, K., Bloom, P., & Mahajan, N. (2011). How infants and toddlers react to antisocial others. *Proceedings of the National Academy of Sciences, USA, 108*, 19931–19936.
- Hepach, R., Haberl, K., Lambert, S., & Tomasello, M. (2017). Toddlers help anonymously. *Infancy, 22*, 130–145.
- Hobbes, T. (2006). *Leviathan*. London, England: A & C Black. (Original work published 1651)
- Hoffman, M. L. (2001). *Empathy and moral development: Implications for caring and justice*. New York, NY: Cambridge University Press.
- House, B. R., Silk, J. B., Henrich, J., Barret, H. C., Scelza, B. A., Boyette, A. H., . . . Laurence, S. (2013). Ontogeny of prosocial behavior across diverse societies. *Proceedings of the National Academy of Sciences, USA, 110*, 14586–14591.
- Jordan, J. J., McAuliffe, K., & Warneken, F. (2014). Development of in-group favoritism in children's third-party punishment of selfishness. *Proceedings of the National Academy of Sciences, USA, 111*, 12710–12715.
- Kinzler, K. D., Shutts, K., & Correll, J. (2010). Priorities in social categories. *European Journal of Social Psychology, 40*, 581–592.
- Levitt, S. D., & List, J. A. (2007). What do laboratory experiments measuring social preferences reveal about the real world? *The Journal of Economic Perspectives, 21*, 153–174.
- Mahajan, N., & Wynn, K. (2012). Origins of "us" versus "them": Prelinguistic infants prefer similar others. *Cognition, 124*, 227–233.
- McAuliffe, K., Blake, P., Steinbeis, N., & Warneken, F. (2017). The developmental foundations of human fairness. *Nature Human Behaviour, 1*, Article 0042. doi:10.1038/s41562-016-0042
- Rochat, P., Dias, M. D. G., Liping, G., Broesch, T., Passos-Ferreira, C., Winning, A., & Berg, B. (2009). Fairness in distributive justice by 3- and 5-year-olds across seven cultures. *Journal of Cross-Cultural Psychology, 40*, 416–442.
- Rousseau, J.-J. (1997). Second discourse. In V. Gourevitch (Ed. & Trans.), *Rousseau: The discourses and other early political writings* (Vol. 1, pp. 111–231). Cambridge, England: Cambridge University Press.
- Sheskin, M., Bloom, P., & Wynn, K. (2014). Anti-equality: Social comparison in young children. *Cognition, 130*, 152–156.
- Sheskin, M., Chevallier, C., Lambert, S., & Baumard, N. (2014). Life-history theory explains childhood moral development. *Trends in Cognitive Sciences, 18*, 613–615.
- Sheskin, M., Nadal, A., Croom, A., Mayer, T., Nissel, J., & Bloom, P. (2016). Some equalities are more equal than others: Quality equality emerges later than numerical equality. *Child Development, 87*, 1520–1528.
- Sloane, S., Baillargeon, R., & Premack, D. (2012). Do infants have a sense of fairness? *Psychological Science, 23*, 196–204.
- Sommerville, J. A., Schmidt, M. F., Yun, J. E., & Burns, M. (2013). The development of fairness expectations and prosocial behavior in the second year of life. *Infancy, 18*, 40–66.
- Starmans, C., Sheskin, M., & Bloom, P. (2017). Why people prefer unequal societies. *Nature Human Behaviour, 1*, Article 0082. doi:10.1038/s41562-017-0082
- Tajfel, H., Billig, M. G., Bundy, R. P., & Flament, C. (1971). Social categorization and intergroup behaviour. *European Journal of Social Psychology, 1*, 149–178.
- Tasimi, A., Dominguez, A., & Wynn, K. (2015). Do-gooder derogation in children: The social costs of generosity. *Frontiers in Psychology, 6*, Article 1036. doi:10.3389/fpsyg.2015.01036
- Tasimi, A., & Wynn, K. (2016). Costly rejection of wrongdoers by infants and children. *Cognition, 151*, 76–79.
- Vaish, A., Carpenter, M., & Tomasello, M. (2010). Young children selectively avoid helping people with harmful intentions. *Child Development, 81*, 1661–1669.

- Warneken, F., & Tomasello, M. (2006). Altruistic helping in human infants and young chimpanzees. *Science*, *311*, 1301–1303.
- Warneken, F., & Tomasello, M. (2009). The roots of human altruism. *British Journal of Psychology*, *100*, 455–471.
- Wynn, K. (2016). Origins of value conflict: Babies do not agree to disagree. *Trends in Cognitive Sciences*, *20*, 3–5.
- Wynn, K., & Bloom, P. (2013). The moral baby. In M. Killen & J. Smetana (Eds.), *Handbook of moral development* (2nd ed., pp. 435–453). New York, NY: Taylor & Francis.
- Zaki, J., López, G., & Mitchell, J. P. (2014). Activity in ventromedial prefrontal cortex co-varies with revealed social preferences: Evidence for person-invariant value. *Social Cognitive and Affective Neuroscience*, *9*, 464–469.