# Why Be Good?

By melvin konner

ssume for the moment that we know what good is. Doing it often involves sacrifice, and if no one is looking, why not do something evil—something selfish, at others' expense? Do we have to be taught the difference between good and bad, right and wrong? Are we naturally drawn toward either?

My own upbringing was steeped in Modern Orthodox Jewish tradition, which includes hundreds of commandments. My family kept most of them, and I was in the synagogue every day from around age eight to seventeen. I was also taught the philosophic and theological basis of the commandments.

Many of these lessons came through stories, as they had for perhaps three thousand years.¹ In one of the first passages I learned to read in Hebrew, Cain slew his brother Abel, and when God questioned him he said, "I know not. Am I my brother's keeper?" (Genesis 4:9).² Perhaps God expected him to be, but in any case God evidently did not tolerate homicide, as Cain's punishment reveals.

The concept of evil persists as the human race grows so thoroughly bad that God decides to destroy the whole species, except for Noah, his family, and many innocent beasts. After the flood, Noah thanks God with an animal sacrifice, and God says, "I will not again curse the ground any more for man's sake, for the imagination of man's heart is evil from his youth"

(Genesis 8:21).

The Hebrew translated here as "the imagination of man's heart" is *yetzer lev ha'adam*, which could be "the inclination" or "the will" of the heart. According to the ancient rabbis of the Talmud, this evil inclination (*yetzer ha'ra*) is balanced by a good one (*yetzer ha'tov*); our task is to tip the balance toward good, which in our weakness we could never do without the Torah's guidance.

Of the Ten Commandments (Exodus 20:1-17), the first four, about getting right with God, and the last six, about doing right by others, are meant to help us curb the evil will. If there were no tendency to kill, steal, commit adultery, and so on, why would we need commandments? Every culture has such rules and consequences, overlapping in content—which is in itself evidence of inclinations in human nature.

Jesus embraced the Ten of course, but cited two other Torah commandments as encompassing all others (Matthew 22:37-40). The first is, "Thou shalt love the Lord thy God with all thy heart, with all thy soul, and with all thy might" (Deuteronomy 6:4, although Matthew says "mind," not "might"), and the second is, "Love thy neighbor as thyself" (Leviticus 19:18). But both Moses's ten and Jesus's two convey the message: Get right with God and you will do right by others.

By the time I lost my faith at seventeen, I had realized two things. First, many atheists in history had been very good people, despite having neither love nor

fear of God. Second, I now personally needed a scientific narrative—an explanation—of the origins of ethics both in development and evolution. Let's consider these in turn.

### THE APPROACH FROM DEVELOPMENT

How do children grow up to be more or less good? Puritan parents in colonial New England had a clear answer. They found their children brimming with evil urges, like wild animals needing taming.<sup>3</sup> Punishment, even beating, was essential, and a wrathful God was waved at kids like a bogeyman from hell. It was a culture of fear: no fear, no conscience. But they did not invent "Spare the rod and spoil the child." It is based on Proverbs 13:24, which reads, "He that spareth his rod hateth his son: but he that loveth him chasteneth him betimes."

Sigmund Freud, the physician who founded psychoanalysis, softened this perspective, positing strange but natural childhood fears, with conscience resulting from internalized, imagined punishments that keep civilization more or less together. In this view, we are born with deep-seated feelings of lust and aggression, but also with fear, and in early life our experiences with powerful adults—especially, in Freud's theory, a potentially punitive father—lead us to repress our innate sexual and violent inclinations. This, by age seven or so, becomes the basis of conscience, which Freud called the "superego."

While Freud analyzed adult patients on his couch, uncovering dark thoughts and unpleasant memories of childhood, psychologist Jean Piaget devised countless ingenious experiments to explore directly how the minds of children work. Playing marbles with kids in Geneva, he saw *them* discover frameworks of fairness, almost instinctively.<sup>5</sup> They seemed somehow to understand: no rules, no game. Younger children, asked where the rules came from, said, "a gentleman," but older ones knew the rules had emerged *within* the game and knew they could change them if they agreed and obeyed—which meant: *playing fair*.

There is truth in both these views, but the facts as we know them now are subtler and more complex. Toddlers approaching the age of two are often heard to say "No" or "Don't" aloud to themselves when they are, say, about to touch a flame. This clearly shows that they have internalized warnings from others and that they are using language to restrain impulses. But are these just impulses that threaten the self (what Freud called the ego)? Or do very young children have some

sense of fairness, some "Don'ts" that apply to how we treat others?

It seems that they do. New studies have carried Piaget's line of reasoning much more deeply into development. In experiments even infants prefer a doll or a puppet that helps over one that hurts others, and by nineteen months of age toddlers act in line with the preference, treating those who help positively and those who hurt negatively. At nineteen months, too, they expect an experimenter to divide a reward equally between two animated giraffe puppets who have contributed to a task, while at twenty-one months they take into account different efforts as well. 8

These studies suggest that our idea of fairness goes back far before we can articulate statements about it, and even perhaps that we may not need to be taught. Going developmentally even deeper, empathy is in some sense with us from the beginning, a kind of emotional-brain resonance enhanced by mirror neurons. Infants are capable of mimicry at birth and a more complex "like me" intersubjective capacity by fourteen months. Contagious crying clearly occurs in newborns, and it persists until nine months of age.

While neither mimicry nor emotional contagion equals empathy, and while we cannot assume that similar behavioral phenomena at different stages of development reflect similar mental states,<sup>13</sup> the brain functions that underlie these early behaviors could be part of the foundation for the later development of conscience. Perhaps we could put it this way: first we have the resonance, then the empathy, and finally the moral reasoning.

Developmental psychologist Jerome Kagan has tried to trace early moral development, seeing morality as "a developmental cascade" including "(a) inhibition of punished acts; (b) a representation of prohibited actions; (c) the emotions of uncertainty, empathy, shame, and guilt; (d) the semantic concepts of good and bad; (e) accepting the moral obligations of social categories; and (f) the concepts of fairness and the ideal."<sup>14</sup>

He goes on to try to time their emergence: "The inhibition of prohibited actions and the cognitive representation of prohibited behaviors, as well as the affect states that follow violations, appear by the end of the second year of life. The concepts of good and bad appear early in the third year, the experience of guilt and awareness of social categories by 4-6 years, and the notions of fairness, the ideal, and relational social categories during the school years." <sup>15</sup>

But we have already seen that what some people are willing to call basic empathy and a sense of fairness occurs much earlier. Also, Kagan's formulation relies on a cultural framework of development, including punishments and prohibitions to be internalized, semantic concepts that depend on language, and moral obligations.

Piaget thought that the sense of fair play could be co-constructed by children playing marbles. Ann Cale Kruger, also a developmental psychologist, devised an ingenious experiment to test Piaget's idea. She gave eight-year-old girls some scenarios in what is called distributive justice—problems about fairness in distribution that are much more complex and verbally based than the ones given to the toddlers mentioned above.<sup>16</sup>

The goal was not to grade the girls on "correct" answers about fairness—there were no correct answers. It was to assess the *complexity* of their moral reasoning based on conversations about the problems. But it was also a before-and-after experiment. Following an initial assessment the girls got to discuss the problems with a same-age friend or with their mothers. In the retest after those conversations, girls who had talked with a peer improved more in their moral reasoning—complexity, not "correctness"—than those who had talked with mom.

Our idea of fairness goes back far before we can articulate statements about it

This seems a clear vindication of Piaget. After the age of reason seven or so—kids can figure out a lot about

justice without parental guidance. Yet Kruger also believes that teaching is a cross-cultural universal, and that moral principles and other rules are among the things that all cultures try to teach, often during initiation ceremonies before or during puberty. How does she reconcile this view with Piaget? Well, cultures reinforce their children's universal understanding of fairness, and they also get more specific: you say "Sir" or "Ma'am" to older people; you joke with certain categories of relatives, but not others.

Less benignly, you may use other categories to determine how much justice you have to mete out to whom. Gender, race, ethnicity, religion, sexual orientation, and in some cultures left-handedness and disability can give you a sort of free pass as you grow up knowing that all people are equal, but some are more equal than others.

## THE APPROACH FROM EVOLUTION

So no culture has relied just on natural fair play for the development of even basic morality; all cultures teach. In the tradition of my childhood, I was taught that we humans have a sense of responsibility—a conscience—that distinguishes us from animals. Biology taught me to say "other animals" and to be less sure about the distinction, but all cultures make it. For Jews, the *good* tendency needs commandments, ultimately divinely inspired; without them—or the Bhagavad Gita, or the sutras, or the Blessings on the Mount, or for that matter what the hunter-gatherer trancers I apprenticed with saw in the spirit-world—we would not know what to do and what not to do.

And yet there are those pesky atheists who somehow do the right thing. As I lost my own faith in divine guidance, I sought evolutionary sources of good and evil. In the half-century since, we have learned that animals, like us, have plenty of both: generosity and selfishness, altruism and violence, help and harm. Help evolves if it is mutual, directed at kin, or enhancing to reputation, or when threats from another group demand exquisite cooperation; occasionally help looks pure, with no explanation at all. Harm evolved for too many reasons to mention.

Frans de Waal, a leading expert on ape, monkey, and other animal behavior, is convinced that we humans are on a continuum with our non-human relatives in behaviors such as empathy, altruism, fairness, cooperation, and reconciliation. He has contributed to an explosion of knowledge about primate and other animal behavior in the half-century since I began musing on the evolution of morality. Clearly the roots of all these admirable behaviors may be found in evolution because they occur in many other animals.

So do selfishness, indifference, deception, betrayal, and violence. The exclamation of Charles Darwin to a colleague more than a century and a half ago remains apt today: "What a book a Devil's chaplain might write on the clumsy, wasteful, blundering low & horridly cruel works of nature!" As someone long suspicious about categorical distinctions between humans and other animals, I am glad to see continuities in desirable traits, but I also see them in disagreeable ones.

As anthropologist Katherine Hirschfeld points out in a recent commentary, "Examples from the animal world can only take us so far." They have not yet helped us much to discern the balance between good and evil impulses in human nature, much less to alter them—although they certainly put an end to the idea

that beasts are bad and we are good. In fact, the word "beastly," with its usual connotations, should be retired.

And there are other problems of definition. One study found that chimpanzees are empathic toward humans and toward chimps they know, but not toward strange chimps or baboons.<sup>21</sup> But the measure used was contagious yawning—even more tenuously related to empathy than contagious neonatal crying.

Also, a growing consensus of primatologists and evolutionary psychologists holds that humans are not just somewhat, but much more cooperative than other primates.<sup>22</sup> Not all agree that "human cooperation represents a spectacular outlier in the animal world,"<sup>23</sup> but many endorse a recent statement by Joan Silk and Bailey House based on many studies: "There can be little doubt that humans cooperate more extensively, with a wider range of partners, and at greater personal cost than other apes do. At some point a sizable quantitative difference becomes a qualitative difference, and it may not be fruitful to argue about exactly where that point lies."<sup>24</sup>

For me, the same applies to language, teaching, providing for the young after weaning (it takes a village), and culture. I still resist categorical distinctions, but "at some point a sizable quantitative difference becomes . . . qualitative." Culture is strongly tied to those other three distinctive traits, and when I ask the question, "Does non-human culture exist?" my short answer is no. What some call culture in non-human primates, I call proto-culture; I find it compellingly interesting because it helps me guess how human culture evolved, but it is not the same—not even close.

So if culture is almost uniquely human, how does it influence conscience?

# THE ROLE OF CULTURE

Human culture always includes teaching, and as we saw above, morality is usually among the things taught. For many, like the Puritans of New England, we find fear enlisted as a moral teacher. For example, Hopi kids were traditionally frightened out of their wits by adults dressed as *Kachina* spirits, powerful, scary beings that know who's been naughty and nice.<sup>26</sup>

Across large numbers of cultures, initiation rites invoke stress and even pain to create teachable moments that tie up the ethical loose ends of childhood, leaving little doubt about what a *person*—read: a member of *our* culture—must do and be.<sup>27</sup> These rites

are windows into the moral teachings of a culture. Rabbinical tradition holds that children can be considered responsible for their own sins at age twelve for girls, thirteen for boys; knowledge and reason can now tip the balance against the evil impulse, in favor of the good. Many Jews mark this transition with a ritual that is stressful, at least intellectually.

Deep scarification among the Nuer of the Sudan, tooth filing among Efe tropical foragers of central Africa, and circumcision among Australian aborigines are among the painful rites that mark the end of child-hood in cultures around the world, and these memorable assaults on the body encourage and internalize the rules, morals, customs, and other messages of the culture. Go through this, the adults and the tradition say, and you'll be one of us. But there is much more to culture than just initiation.

Among the !Kung (Bushmen) I lived for two years with in Botswana, the central religious experience is the trance dance, for healing. I was an apprentice, and although I didn't get very far, the altered states of consciousness frightened me. Advanced healers confront a world of gods and spirits who—like those of the ancient Greeks—have motives, feelings, and caprices of their own. Healers must talk them out of taking a sick person away, and morals may not matter. But if chastisement is involved, it is likely for the survivors, for not taking good enough care of the one who is ill.

For the marvelously welcoming Buddhist monks I befriended and briefly taught and learned from in Dharamsala,<sup>28</sup> bad thoughts and actions threaten all sentient beings with cosmic disorder. The monks' (and nuns') path—decades of study and meditation—may

First we have the resonance, then the empathy, and finally the moral reasoning. bring them a little closer to liberation from the cycle of rebirth, which

they view as the highest possible achievement; or, if they fail, they may have to recycle after death in unenviable forms. So is fear the actual basis of morals in all these cultures? No. In fact, "Spare the rod and spoil the child" is a false saying.

A new meta-analysis of 111 published research findings on 160,000 children shows that spanking is associated with *more* aggression, antisocial behavior, externalizing and internalizing problems, mental health problems, and negative relationships with parents, and with *lower* moral internalization, cognitive ability, and self-esteem. Also, adults with a childhood

history of spanking were more antisocial and had other mental health problems, as well as favoring physical punishment, perpetuating the cycle. There was no difference between the effects attributable to what was called "spanking" and those of what was clearly physical abuse.<sup>29</sup>

We have already seen that empathy and distributive justice have deep roots in early childhood or younger, built on by maturing reason. Researchers have found that even Bogotá street children growing up amid war and violence

made universal and noncontingent moral judgments not unlike those of normative samples studied in the United States and other countries. They thought it was wrong to steal and hurt others not because one may get punished... but because of considerations with justice and the welfare of others. Nearly all also judged it would be wrong to steal or inflict harm even if it were legal or common...These findings, that war-affected children and adolescents display noticeable moral knowledge in spite of having been exposed to violence, poverty, and dislocation, are incompatible with the grim picture of moral disorientation and truncated development painted by some.<sup>30</sup>

So goodness arises in kindergarten ("All I really need to know...") or even on mean slum streets, just as fair play arose in those Swiss marble games—naturally.

Except when it doesn't.

Kids on the autism spectrum have trouble with empathy,<sup>31</sup> while some kids with conduct disorder harm others without remorse.<sup>32</sup> Aggression is as natural as compassion, especially in boys; some must be *taught* not to hit or throw things. Perhaps they would outgrow it, but before that they could cause serious harm. Some persist as bullies, and a few become lifelong bad actors. The existence of these outliers, common enough to cause great social problems, proves that empathy and conscience do not develop naturally in everyone.

As for adults, recent experiments and mathematical models support the claim that we are the most cooperative species<sup>33</sup>—but watch the news and see: *we are not cooperative enough*. Worse, science, as well as common sense, tells us we cooperate best when directing harm out at a common enemy. Groups are very often *internally* altruistic even as they mirror each other's violence—sometimes a seemingly endless es-

calation of retribution.34

Recall Kruger's observation that some fundamental aspects of morality develop naturally, but that all cultures supply specific rules to channel them. Consider a few illustrations of this principle among the contributions to the "Culture and Conscience" dialog on the Center for Humans and Nature website.

No culture has relied just on natural fair play...for even basic morality; all cultures teach.

Anthropologist Louise Brown studies prostitutes in Lahore, Pakistan. Shamed by their society, they still have a code of honor, which Brown herself ran afoul of. A mother there sold her daughter's virginity to a distant powerful sheik, an honorable exchange that would result in a better life for the girl. But Brown gave sex away to a male companion for free, with no intent of marriage; worse, she allowed her daughter to do the same. The professionals viewed both as loose women giving everything for nothing.<sup>35</sup>

These contrasting codes of honor both build on a foundation of shame that develops naturally in child-hood and that in both these cultures is channeled to shame women who have sex. But the context that is shameful is very different. And of course, if it were not a man's world—even granting that women and men have different sexual drives and sexual risks—then neither the prostitutes nor the anthropologist would be shamed. Cultures created by men (and they are everywhere) guarantee guilt and shame for women.

There are so many other interesting cases. Physician-anthropologist Jessica Gregg writes movingly of the conscience of her patients, who are heroin and other opioid addicts.<sup>36</sup> They know the larger culture they are hoping to adapt to, which often means leaving the subculture of their comfort zone behind. They are "navigating north with a broken compass," but they don't stop trying.

Polly Wiessner deftly describes the moral commonalities between the !Kung of the Kalahari and the Enga of New Guinea, two cultures she has studied for decades.<sup>37</sup> The Enga say, "We live suspended in a spider's web; care must be taken not to break a single strand," and both they and the !Kung live this message by taking care of each other—inside the circle of friends and kin. Outside it, the !Kung are indifferent and the Enga violent. Enga boys' initiation mandates that they marry a spirit woman and deny themselves sex with real women for years, but what they are really

doing is marrying each other, so that they can face the world in fierce solidarity. Conscience becomes tantamount to in-group loyalty.

Psychologist Cristine Legare describes how, like many cultures, the Zande of North-Central Africa use witchcraft to explain random harmful events, which enables them to find the "why" while at the same time externalizing blame.<sup>38</sup> It is a widespread cultural path to a clearer conscience. And the Corsicans studied by anthropologist Sarah Davis sometimes left her feeling "utterly alienated" and—like Louise Brown—questioning her own value. These were "typically instances in which my notions of a kind of abstract individualism based on merit clashed with local notions of personhood grounded in social networks that went back generations."<sup>39</sup> Much the same can be said of how personhood is grounded in any traditional culture.

Rabbi Emanuel Feldman, a respected Orthodox Jewish thinker, goes further: "Culture is not necessarily elevating or positive. It can also be negative. There can be a culture of guns and a culture of caring; a culture of violence and a culture of peace; a culture of love and a culture of hate." Many Nazis and the professors who condoned them were highly "cultured" in a different sense, even as they formed a culture of hate. "Those living in a narcissistic, self-absorbed culture will find their inborn selfish instincts to be enhanced and enlarged, while those who live in a giving, tolerant, and open culture will find it easier to overcome those inborn instincts and to transcend them. . . . A culture of evil can actually obliterate conscience; a culture of benevolence can refine and enrich conscience."40 Thus, he separates culture from conscience, which he speculates may be inborn, or even eternal.

Katherine Hirschfeld makes a related, essential point: When cultures become repressive, individual voices allow conscience to survive. <sup>41</sup> She writes of poets and other artists who "can transcend the limits of culture to resonate with the universality of conscience," and we know that an opposition leader can be the

We are progressing toward a more inclusive sense of what is good.

conscience of a nation— Martin Luther King, Jr., Nelson Mandela, Aung San Suu Kyi. "These dissenting voices represent a natural effervescence of

conscience that can never be fully suppressed. Some special quality of insight and imagination allows a select few to see beyond the limits of culture and recognize the essential personhood of outsiders not conven-

tionally granted human status."

Anthropologist and psychoanalyst Robert A. Paul argues that "culture *is* conscience" and he reminds us that conscience means "knowing together."<sup>42</sup> But what happens when the cultural conscience of one group clashes with that of another, as in the Holocaust? And how do Hirschfeld's effervescent dissenters find the courage of their conscience when it goes directly against the one shared by the dominant culture?

## CONCLUSION: THE MORAL ARC

People make the greatest sacrifices for kin, friends, tribe, and country when they are at war, but unfortunately this inward-turning altruism is paired with outward-turning hatred.<sup>43</sup> With "civilization," cultural order improved, but always at the cost of what anthropologists call "structural violence": the oppression, using force, of the many by the few.<sup>44</sup> Also, the resulting "orderly" energy was aimed at other civilizations. *We* were human, *they* were not, a process that psychoanalyst Erik Erikson called *pseudospeciation*, a concept that unfortunately remains useful today.<sup>45</sup>

Yet the definition of humanity—the people we are decent to—has widened; perhaps one day it can encompass the human race. Surprising to some, violence has declined by many measures, including both in-group (me against my kinsman) and out-group (us against them) violence.46 We also inhabit the non-human world differently. In one human lifetime we have gone from imagining nature as threatening yet endlessly bountiful to knowing it as vulnerable and finite;<sup>47</sup> the earth, in a way, is like a family farm. We can only survive by relying on it, but not in the old sense of unbridled exploitation; it is limited and surprisingly small. It is all we have, and we need to take care of it for coming generations of the human family. The arc of the moral universe, as Martin Luther King, Jr., and others have said, bends toward justice—but only if we keep bending it, as conscience and culture now urge we do.48

It is not always clear what good means; some people think it is good to kill Jews or Tutsis, exile Muslims, excise girls' genitalia, behead non-believers, exploit humanity and nature without end. Culture does not shape conscience only one way. But we are progressing toward a more inclusive sense of what is good. The conscience arising out of instinct and built upon by culture need not make us cowards. It can embolden us to build a better world.

Melvin Konner, M.D., Ph.D., teaches anthropology and behavioral biology at Emory University. He did field research for two years among !Kung San (Bushman) hunter-gatherers of the Kalahari in Botswana. His website is www.melvinkonner.com.

### **NOTES**

- 1. M. Konner, Unsettled: An Anthropology of the Jews (New York: Viking Penguin, 2003).
- ${\tt 2.}$  This and other Bible quotations are from the King James Version.
- 3. L. Pollock, A Lasting Relationship: Parents and Children over Three Centuries (New York: Cambridge University Press, 1987).
- 4. S. Freud, Civilization and Its Discontents (1930; repr., New York: W.W. Norton, 1961).
- 5. J. Piaget, The Moral Judgment of the Child (1932; repr., New York: Free Press, 1965).
- 6. J. Kagan, The Second Year: The Emergence of Self-Awareness (Cambridge, MA: Harvard University Press, 1981).
- 7. J.K. Hamlin, K. Wynn, P. Bloom, and N. Mahajan, "How Infants and Toddlers React to Antisocial Others." Proceedings of the National Academy of Sciences, U.S.A. 108 (2011): 19931-36.
- 8. S. Sloane, R. Baillargeon, and D. Premack, "Do Infants Have a Sense of Fairness?" Psychological Science 23, no. 2 (2012): 196-204, DOI: 10.1177/0956797611422072.
- 9. V. Gallese, "Embodied Simulation: From Mirror Neuron Systems to Interpersonal Relations," Novartis Foundation Symposium 278 (2007): 3-12; discussion, 12-19.
- 10. A.N. Meltzoff and M.K. Moore, "Imitation of Facial and Manual Gestures by Human Neonates," Science 198 (1977): 75-78.
- 11. J.N. Saby, P.J. Marshall, and A.N. Meltzoff, "Neural Correlates of Being Imitated: An EEG Study in Preverbal Infants," Social Neuroscience 7, no. 6 (2012): 650-61, DOI: 10.1080/17470919.2012.691429.
- 12. E. Geangu, O. Benga, D. Stahl, and T. Striano, "Contagious Crying Beyond the First Days of Life," Infant Behavior and Development 33, no. 3 (2010): 279-88, DOI: 10.1016/j. infbeh.2010.03.004.
- 13. J. Kagan, "In Defense of Qualitative Changes in Development," Child Development 79, no. 6 (2008): 1606-1624.
- 14. J. Kagan, "Human Morality and Temperament," Nebraska Symposium on Motivation 51 (2005): 1-32, at p. 1.
- 15. Ibid.
- 16. A.C. Kruger and M. Tomasello, "Transactive Discussions with Peers and Adults," Developmental Psychology 22, no. 5 (1986): 681-85; A.C. Kruger, "The Effect of Peer and Adult-Child Transactive Discussions on Moral Reasoning," Merrill-Palmer Quarterly 38, no. 2 (1992): 191-211.
- 17. A.C. Kruger and M. Tomasello, "Cultural Learning and Learning Culture," in D. Olson and N. Torrance, eds., Handbook of Education and Human Development: New Models of Learning, Teaching, and Schooling (Oxford, UK: Basil Blackwell, 1996), 369-87; M. Tomasello, A.C. Kruger, and H.H. Ratner, "Cultural Learning," Behavioral and Brain Sciences 16 (1993): 495-511.
- 18. F.B.M. de Waal, P. Smith Churchland, T. Pievani, and S. Parmigiani, "Evolved Morality: The Biology and Philosophy of Human Conscience," Behaviour 151, nos. 2-3 (2014): 137-41, DOI: 10.1163/1568539x-00003158; F.B.M. de Waal, "Natural Normativity: The 'Is' and 'Ought' of Animal Behavior," Behaviour 151, nos. 2-3 (2014): 185-204, DOI: 10.1163/1568539x-00003146; F.B.M. de Waal, "The Antiquity of Empathy," Science 336 (2012): 874-76, DOI: 10.1126/science.1220999; and other writings.
- 19. Charles Darwin to botanist Joseph Hooker, July 13, 1856, Darwin Correspondence Project, https://www.darwinproject.ac.uk/letter/DCP-LETT-1924.xml.
- $20.~K.~Hirschfeld, "The Transcendent Voice of Conscience," \\ \underline{\text{http://www.humansandnature.org/the-transcendent-voice-of-conscience}, accessed August 11, 2016.}$
- 21. M.W. Campbell and F.B.M. de Waal, "Chimpanzees Empathize with Group Mates and Humans, but not with Baboons or Unfamiliar Chimpanzees," Proceedings. Biological Sciences/The Royal Society 281 (2014), DOI: 10.1098/rspb.2014.0013, <a href="http://dx.doi.org/10.1098/rspb.2014.0013">http://dx.doi.org/10.1098/rspb.2014.0013</a>.
- 22. E. Fehr and B. Rockenbach, "Human Altruism: Economic, Neural, and Evolutionary Perspectives," Current Opinion in Neurobiology 14, no. 6 (2004): 784-90; S.B. Hrdy, Mothers and Others: The Evolutionary Origins of Mutual Understanding (Cambridge, MA: Harvard University Press, 2009); J.B. Silk and B.R. House, "The Evolution of Altruistic Social Preferences in Human Groups," Philosophical Transactions of the Royal Society of London, Series B, Biological Sciences 371 (2016), DOI: 10.1098/rstb.2015.0097.
- 24. Silk and House, "The Evolution of Altruistic Social Preferences in Human Groups.".
  25. For a detailed argument, see the section, "Does Nonhuman Culture Exist?" in M.

- Konner, The Evolution of Childhood (Cambridge, MA: Belknap Press, 2011), 579-92.
  26. E. Goldfrank, "Socialization, Personality, and the Structure of Pueblo Society," American Anthropologist 47 (1945): 516-39.
- 27. A. van Gennep, The Rites of Passage (1909; repr., Chicago, IL: University of Chicago Press 1061)
- 28. This was with the Emory-Tibet Science Initiative; my thanks to the monks and nuns and to Carol Worthman and Robert A. Paul.
- 29. E.T. Gershoff and A. Grogan-Kaylor, "Spanking and Child Outcomes: Old Controversies and New Meta-analyses," Journal of Family Psychology 30, no. 4 (2016): 453-69, DOI: 10.1037/fam0000191.
- 30. R. Posada and C. Wainryb, "Moral Development in a Violent Society: Colombian Children's Judgments in the Context of Survival and Revenge," Child Development 79, no. 4 (2008): 882-98, at p. 893.
- 31. S. Baron-Cohen and S. Wheelright, "The Empathy Quotient: An Investigation of Adults with Asperger Syndrome or High Functioning Autism, and Normal Sex Differences," Journal of Autism and Developmental Disorders 34, no. 2 (2004): 163-75.
- 32. R.F. Eme, "Sex Differences in Child-Onset, Life-Course-Persistent Conduct Disorder. A Review of Biological Influences," Clinical Psychological Review 27, no. 5 (2007): 607-627, DOI: 10.1016/j.cpr.2007.02.001.
- 33. S. Bowles and H. Gintis, The Cooperative Species: Human Reciprocity and Its Evolution. (Princeton, NJ: Princeton University Press, 2011).
- 34. R. Girard, Violence and the Sacred (Baltimore, MD: Johns Hopkins University Press, 1977); M. Konner, "Violent Origins: Mimetic Rivalry in Darwinian Evolution," in P. Antonello and P. Gifford, eds., How We Became Human: Mimetic Theory and the Science of Evolutionary Origins (East Lansing, MI: Michigan State University Press, 2015): 137-60. 35. L. Brown, "The Honorable Prostitute: Culture and Conscience in a Pakistani Brothel," <a href="http://www.humansandnature.org/culture-the-honorable-prostitute">http://www.humansandnature.org/culture-the-honorable-prostitute</a>, accessed on August 11, 2016; see also L. Brown, "Prostitutes with Honor, a Researcher with Shame," in S.H. Davis and M. Konner, eds., Being There: Learning to Live Cross-Culturally (Cambridge, MA: Harvard University Press, 2011), pp. 151-65; and L. Brown, The Dancing Girls of Lahore: Selling Love and Saving Dreams in Pakistan's Pleasure District (New York: Harper Perennial, 2006)
- 36. J. Gregg, "Navigating North with a Broken Compass," <a href="http://www.humansandnature.org/navigating-north-with-a-broken-compass">http://www.humansandnature.org/navigating-north-with-a-broken-compass</a>, accessed August 11, 2016.
- 37. P. Weissner, "Conscience in the Web of Culture Seeking the Limits," <a href="http://www.humansandnature.org/conscience-in-the-web-of-culture-seeking-the-limits">http://www.humansandnature.org/conscience-in-the-web-of-culture-seeking-the-limits</a>, accessed August 11, 2016.
- 38. C. Legare, "How People Use Science and the Supernatural to Explain Traumatic Events," <a href="http://www.humansandnature.org/how-people-use-science-and-the-supernatural-to-explain-traumatic-events">http://www.humansandnature.org/how-people-use-science-and-the-supernatural-to-explain-traumatic-events</a>, accessed August 11, 2016.
- 39. S. Davis, "Into the Gray," <a href="http://www.humansandnature.org/into-the-gray">http://www.humansandnature.org/into-the-gray</a>, accessed August 11, 2016.
- 40. E. Feldman, "Musings from Inside a Synagogue," <a href="http://www.humansandnature.org/musings-from-inside-a-synagogue">http://www.humansandnature.org/musings-from-inside-a-synagogue</a>, accessed August 11, 2016.
- 41. K. Hirschfeld, "The Transcendent Voice of Conscience."
- 42. R.A. Paul, "Culture Is Conscience," <a href="http://www.humansandnature.org/culture-is-conscience">http://www.humansandnature.org/culture-is-conscience</a>, accessed August 11, 2016.
- 43. L. Coser, The Functions of Social Conflict (New York: Free Press, 1956); S. Bowles, "Did Warfare among Ancestral Hunter-Gatherers Affect the Evolution of Human Social Behaviors?" Science 324 (2009): 1293-98.
- 44. J. Galtung, "Violence, Peace, and Peace Research," Journal of Peace Research 6, no. 3 (1969): 167-91; P. Farmer, "On Suffering and Structural Violence: A View from Below," Daedalus 125, no. 1 (1996): 261-83.
- 45. E. Erikson, Insight and Responsibility. (New York: Norton, 1964).
- 46. S. Pinker, The Better Angels of Our Nature: Why Violence Has Declined (New York: Viking, 2011).
- 47. J. Jacquet, "Big Oil and Baboons: On Culture, Conscience and Climate Denial," <a href="http://www.humansandnature.org/culture-big-oil-and-baboons-on-culture-conscience-and-climate-denial">http://www.humansandnature.org/culture-big-oil-and-baboons-on-culture-conscience-and-climate-denial</a>, accessed August 11, 2016.
- 48. Dr. King was not the first to use this image, and he set it in quotes to indicate that. The first documented use of it was by the mid-nineteenth century Unitarian minister and transcendentalist philosopher Theodor Parker. For a history see <a href="http://quoteinvestigator.com/2012/11/15/arc-of-universe/#note-4794-8">http://quoteinvestigator.com/2012/11/15/arc-of-universe/#note-4794-8</a> U.S. President Barack Obama also cited it in his speech on the fiftieth anniversary of Dr. King's "I Have a Dream" speech, adding that the arc "doesn't bend on its own." See Z.J. Miller, "In Commemorative MLK Speech, President Obama Recalls His Own 2008 Dream," Time, August 28, 2013, <a href="http://swampland.time.com/2013/08/28/in-commemorative-mlk-speech-president-obama-recalls-his-own-2008-dream/">http://swampland.time.com/2013/08/28/in-commemorative-mlk-speech-president-obama-recalls-his-own-2008-dream/</a>.