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Perspectives on de Waal's *Primates and Philosophers: How Morality Evolved*

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Are humans basically self-centered, aggressive animals with only a thin coating of moral varnish? Or is our morality in our genes, part of our genetic inheritance? If so, do we find traces of morally induced behavior in our nearest relatives, the apes?

These questions have fascinated primatologist Frans de Waal most of his professional life, and they have been at the core of his many popular books. *Primates and Philosophers* grew out of his Tanner Lectures at Princeton University and so has a peculiar structure. It includes essays by four scholars in response to the lectures (and sometimes to de Waal's other books) and closes with the author's response to the commentators. Here I discuss features of de Waal's main thesis that are within my purview as an environmental historian with an interest in wild animals.

De Waal argues that humans are moral animals, a commonality we have, at least up to a point, with chimpanzees and bonobos, which are, evolutionarily speaking, our nearest relatives and which de Waal has studied for decades in zoos. He bases his arguments on this research and on a growing body of observational data from other scientists who have studied great apes in the wild in Africa. Readers interested in more details than de Waal's relatively short essay (80 pages) can provide are referred to his *Good Natured* (1996) and *Our Inner Ape* (2005).

In de Waal's view, it is plausible that the common ancestor of humans, bonobos, and chimps was a "moral" being in the sense that it may have shown altruistic and empathic features like the ones we find in those species today. Finding moral features in apes is a fairly recent phenomenon that has revolutionized our view of these animals and, in some eyes, of ourselves.

What kind of evidence would a historian require before entertaining such a hypothesis? He or she would note that it was 5.5 million years ago that hominids branched off from that ancestor and that it is therefore extremely unlikely that

we will find any direct evidence for or against de Waal's hypothesis. We may find evidence of how our common ancestor dealt with its natural environment or what it ate, but we will probably not learn much more about its behavior patterns.

We can also be sure that humans have evolved in the past 5.5 million years. New evolutionary roads may have been opened by the development of speech and the ability to make fire, two factors that must have changed early humans' way of life drastically and may therefore have had some bearing on the types of behavior that were at a premium, with all the moral implications that such changes might have entailed. Climate change also must have led to shifts in human behavior, not once but several times over the last million years. Rising or falling average temperatures and sea levels were surely challenges that must have led to new patterns of evolutionary selection among hominids.

It should also be pointed out that the present-day behavior of apes is not necessarily the same as that of a few million years ago. If people have evolved, then so have apes. Philosophers have denied "brute beasts" a history because they have no annals or empires, but that does not mean that chimpanzees' present-day behavior and morals can be projected backward unchanged a few million years. They and other apes have been subject to selective evolutionary pressures that were partly the same ones that humans were confronted with (e.g., climate change).

Of course, what applies to our common ancestor is also true for the hominids and apes of a few million years ago; we have some of their bones and implements and some remainders of their kills, but direct information regarding their behavioral patterns will probably never be available. Direct knowledge of human behavioral patterns from written texts is not older than a few millennia (e.g., the Vedas, the Gilgamesh epic, the Bible, Homer), so the gulf between our earliest knowledge of human morality and the knowledge required for testing de Waal's hypothesis is vast.

The same type of knowledge regarding animal behavior is even more recent. Behavioral studies, either in zoos or in the wild, are largely a post-World War II phenomenon. There is some older information, in some cases dating back a few millennia (e.g., Herodotus, Aristotle), but this is mainly an-

ecdotal evidence of uncertain provenance and reliability, and it appears, moreover, to be largely restricted to just a few animals that captured the imagination of the ancients. So the gulf is even wider here.

De Waal is aware of most of these problems, but he does not mention them in *Primates and Philosophers*. In *Our Inner Ape*, he dedicated only a few lines to the problems posed by our lack of knowledge regarding the ancestors of humans and apes and the evolutionary processes that have taken place since they lived. Philip Kitcher (particularly on pp. 136–39) is aware of the fact that we should be dealing with humans (and apes) of long ago and not with our contemporaries if we want to test de Waal's statements. Historians do not necessarily have to disagree with de Waal. On the contrary, he makes a plausible case for his hypothesis, but, given the absence of *historical* evidence, it can be based only on a number of rather heroic assumptions.

Finally, de Waal has strongly suggested in his publications that seeing nonhuman animals—in this case, two species of apes—as moral beings is a novel concept, and his critics in this volume do not contest this. He emphasizes that philosophers and other scholars—and perhaps people in general—have always stressed the differences between amoral or immoral beasts and moral humans. However, human perception of the “closeness” between people and animals is not a constant. In early modern Europe there were always people—both laymen and scholars—who believed that people and (some) animals were close, so close, for instance, that they could mate and produce offspring. It was also not rare to ascribe religious feelings and thus morality to certain animals (see, e.g., Thomas 1983). Perhaps the most conspicuous example of attributing moral qualities to animals is found in late-medieval trials of animals, such as pigs, that had transgressed seriously against people (e.g., Cohen 1986).

Primates and Philosophers discusses the moral side of animal behavior and its implications for the importance of morality in human nature. Those who are mainly interested in the philosophical aspects of de Waal's discussion should read this book. Everyone else is better off with books like *Our Inner Ape*.

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More than a century after Huxley's (1989) controversial lecture “Evolution and Ethics,” he is still reviled by some as a traitor to the cause of Darwinism. Toward the end of his life, it is said, Huxley got weak knees and extracted man from nature, where Darwin had courageously put him. Huxley thought that man counteracted the brutality of evolution with ethics, limiting what for Darwin had been a universal process. So harsh were the critics, including former friend Herbert Spencer, that Huxley was moved to write a “Prolegomena” in which he defended his views, pledged his allegiance to Darwinism, and bewailed the fact that people had thought him anti-Darwinian.

Frans de Waal remains unconvinced. Huxley, writes de Waal in *Primates and Philosophers*, was a useful proselytizer but never really understood the theory of evolution. De Waal makes him the figurehead of a school of thought that believes that evil resides in nature and that we are good only to the extent that we divorce ourselves from nature. The Huxleyans, as de Waal calls them, see morality as a thin, cultural veneer over amoral human nature. *Homo homini lupus*, and the beast within can be chained only by a social contract, a culturally imposed superego, or an act of free will, as when Richard Dawkins assured us that “we, alone on earth, can rebel against the tyranny of the selfish replicators” (p. 9). Veneer theory is surprisingly popular among de Waal's own colleagues. It was a sociobiologist, Michael Ghiselin, who produced its best and briefest summary: “scratch an ‘altruist’ and watch a ‘hypocrite’ bleed” (p. 10).

Huxley's “curious dualism” (p. 8) in “Evolution and Ethics” is astounding, writes de Waal. The erstwhile defender of Darwinism was in effect saying that what makes us human, our morality, cannot be explained by evolutionary theory. Not only was this an “inexplicable retreat” (p. 8) but Huxley “gave no hint whatsoever where humanity might have unearthed the strength and will to defeat the forces of its own nature” (p. 8). It would indeed have been astounding had Huxley really retreated from Darwinism, but he never did. De Waal is wrong, and his indignation is misguided. In fact, Huxley's reflections on human morality are still relevant today and are in some ways more subtle than de Waal's.

What makes de Waal's attitude toward Huxley especially disagreeable is the fact that Huxley gave more than a hint as to where people find the strength to oppose their own nature. In the “Prolegomena,” he assured his critics that morality is an evolved trait like any other. The roots of the “ethical process” lie in our natural history, not outside it. It is sympathy, “the tendency, so strongly developed in man, to reproduce in himself actions and feelings similar to, or correlated with, those of other men” (Huxley 1989, 86), that provided the germ from which our morality grew. The “organized and personified sympathy we call conscience” (Huxley 1989, 88) is based ultimately on this reflex. I can only assume that de

Waal never read this far. Although he does quote from the beginning of the "Prolegomena," he does not mention this part of Huxley's argument. De Waal's own candidate moral core, however, is the spitting image of Huxley's sympathy: a reflexlike ability to mimic the behavior and feelings of others that he calls "empathy." Astounding indeed.

Where Huxley and many before and after him went wrong was in depicting nature uniquely as a source of evil. De Waal's work on primate social life over the past three decades has been crucial in demolishing this view. Nature is no more essentially amoral than human culture is all sweetness and light. The many observations of and experiments with chimpanzees and capuchins that de Waal relates put to rest the view that we are alone in having a sense of fairness, valuing reconciliation, or helping the needy. De Waal's argument that such behavior, in primates or in people, requires an automatic empathic mechanism is plausible. But here, as elsewhere (e.g., de Waal 2001), he combines this demonstration of the continuities between ape and human with a stubborn refusal to allow even a hint of discontinuity. In his anti-dualism, de Waal is caught in a dualism of his own. Like many proponents of evolutionary approaches to human behavior (Derksen 2005), he sees only one alternative to dualism: monism.

As Philip Kitcher notes, de Waal is very clear about the starting point of our morality but seems unwilling to think much about its terminus. Both Christine Korsgaard and Kitcher urge a consideration of what is specific about human morality, and both identify this in normative self-government, precisely the capacity that Huxley saw as central to the ethical process. We are, as Huxley put it in a famous metaphor, gardeners, cultivating our own nature. We do not merely have a nature; we are expected to make something of it (Derksen 2007). What enables this reflexivity, according to both Korsgaard and Kitcher, is language, with which we can express our morality in ideal norms. Without leaving the realm of nature, we can turn back on it.

De Waal does not like the gardening metaphor, because it suggests that we have to go against nature to be moral. Instead of going against the grain, like Huxley's gardener, "we rely on natural growth" to develop our morality (p. 57). But surely this is too simple a view. Moral development, whether of individuals or of society, involves much discussion and reflection. It is not simply pushed by natural causes; it is also guided by goals and ideas that are matters of debate. Moreover, sometimes the process requires self-control. Huxley seems to have held a rather repressive view of both gardening and ethics, but he was right that we sometimes check our impulses and control our desires in favor of a greater good. None of this implies that morality is not natural or that human nature is amoral. It implies, as Huxley realized, that one part of our nature can be antagonistic to another. If that seems logically absurd, he added, "I'm sorry for logic" (Huxley 1989, 70). Huxley inflated this antagonism to metaphysical proportions, but de Waal's monism is equally dogmatic. Huxley's "horticultural process" of self-cultivation is worthy of the

same kind of detailed empirical attention as de Waal's primate studies.

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Frans de Waal is brave. A book about morality in animals may have been long overdue and may have been presaged by numerous scholarly works and empirical findings, several by de Waal himself, but *Primates and Philosophers* is still a fundamental deviation from many cultural and philosophical convictions. After the Galilean rejection of geocentrism, the Darwinian rejection of homocentric design, and the Freudian emphasis on the libidinal roots of humanity (Brown 1961), one could imagine that by the twenty-first century man's place in the universe had come to be regarded as undeniably peripheral. Morality, however, is somehow still considered to be of particularly human provenance.

De Waal makes a strong case for the evolutionary continuity of morality, arguing against both what he calls "Veneer Theory" and "anthropodenial" (the unjustified refusal to contemplate similarities between humans and other animals). Whether or not the reader agrees with his thesis, *Primates and Philosophers* has some lovely insights into moral actions in primates and very useful conceptual distinctions between aspects of moral behavior. The book is thought-provoking for the lay reader, challenging to the psychologist or philosopher, and a helpful repository of arguments for students.

De Waal's challenge to veneer theory is unequivocal: humans are naturally good, our goodness inherited from our nonhuman ancestors and derived (in evolution) from emotional responses that are common to humans and many nonhumans. He seeks to bridge a human-nonhuman divide and, simultaneously, to bring emotion to the center of the moral agenda.

De Waal defines morality as the impartial; anything that involves the interest of the self is seen as not really moral (p. 20):

emotions such as gratitude and resentment directly concern one's own interests—how one has been treated or how one wishes to be treated—hence they are too egocentric to be moral. Moral emotions ought to be disconnected from one's immediate situation: they deal with good and bad at a more abstract, disinterested level. It is only when we make general judgements of how *anyone* ought to be treated that we can begin to speak of moral approval and disapproval. It is in this specific area, famously symbolized by Smith's (1937 [1759]) "impartial spectator," that humans seem to go radically further than other primates.

There is no doubt that this distinction touches on something that we all recognize and value. Impartiality in the face of threat is the essence of heroism. So why not insist on impartiality as the essence (if we must have an essence) of morality?

Yet there are two dangers in this definition. First, by pitting emotion against principle one may fall into an emotion-morality opposition that de Waal is committed to defeating. Second, one may invite an evolutionary dichotomy between species, precisely the opposite of the Darwinian emphasis on continuity that de Waal vociferously argues for. As a consequence, de Waal has to draw a conceptual distinction between emotional morality and cognitive morality and thus just as insuperable an evolutionary distinction between apes and monkeys as had previously been drawn between humans and all other animals. These distinctions are standard in current psychology and have impeccable pedigrees (and well-established challenges, e.g., Gilligan 1977). But there is as much reason to be suspicious of the Platonic divide between cognition and emotion as there is to be wary of yet another Rubicon dividing species in evolution or stages in ontogeny.

How, then, does one deal with this tension between the partial and the impartial? John Dewey (1961 [1916], 502) expressed this relation rather neatly:

One wholly indifferent to the outcome does not follow or think about what is happening at all. From this dependence of the act of thinking upon a sense of sharing in the consequences of what goes on, flows one of the chief paradoxes of thought. Born in partiality, in order to achieve its tasks it must achieve a certain detached impartiality.

The really difficult question (for psychology at least) concerns not the relative prominence of partiality and impartiality but rather how to manage the relation between them. Do we overcome partiality and dismiss it, or should there be a balance? Can impartiality ever be genuine if there is no partiality to give it meaning and value? Similarly, the balance between engagement and detachment is also problematic in the development of social cognition: without engagement, detached "theory" has no meaning, and without detachment, engagement has no capacity to name. The issue, in relation to morality, is this: if we cannot assume a one-directional movement from partiality to impartiality, perhaps we should be looking

not only for continuity but also for simultaneity (and balance between the two) in evolution.

Most of the objections from the commentators in *Primates and Philosophers* are, in fact, that de Waal's distinctions do not go far enough or sufficiently recognize the uniqueness of human morality. The idea of normative self-government—of choice according to principles or norms—keeps emerging as a defining feature of what we might choose to call "moral." Christine Korsgaard, for instance, skillfully distinguishes between actions that happen to be moral and those that are intended to *be* moral, choosing good because it is known to be good (p. 112):

We do not merely *have* intentions, good or bad. We assess and adopt them. We have the capacity for normative self-government, or, as Kant called it, "autonomy." It is at this level that morality emerges. The morality of your action is not a function of the content of your intentions. It is a function of the exercise of normative self-government.

The prerequisite is self-consciousness and skill at conceptual objectification, that is, knowing not just *how* but *that* one is to be moral. To this extent, the argument is wholly cognitivist: the essence of morality lies in *thinking* morally, not in doing or feeling so. The emphasis on cognition over emotional and motivated action is as theoretically problematic in discussions about morality as it is in discussions about social intelligence (Reddy 2007): for both evolution and development, if intelligence *matters*, it can only really matter in action (Baldwin 1909; Dewey 1910). The danger of exclusive reliance on moral cognition or the principles underlying action is particularly evident in moral self-deception (Wilson, n.d.).

Even though arguments against de Waal's "vener" terminology—Philip Kitcher argues that it is too easy a position to demolish, and Korsgaard hints that it is too neglectful of the distinctive and un-venerlike way of being in the world that human action gives us—are serious and important, they do not diminish the value of his contribution. In using this metaphor, however flawed, he has struck an empirical blow for process in the development of psychological phenomena and a conceptual one against our penchant for simplistic dichotomization.

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Gremlin, a female chimpanzee in Tanzania, was cradling her newborn baby in the company of several other females when some ugly behavior broke out. Fifi, a community matriarch, tried repeatedly to snatch Gremlin's infant from her. Gremlin moved nervously away, and Fifi began to recruit the assistance of the other females, anxiously pulling them into the action. At one point, Gremlin fended off three females—with whom she had lived side by side for decades—as they attempted to take her infant away. In chimpanzee society, this could have only one meaning: an attempted infanticide. The attempts failed that day, but they raise not only behavioral questions in need of functional explanation but also philosophical issues about the meaning of bad behavior.

One approach would be to say that the concept of “bad” cannot be projected onto a nonhuman animal. Two male chimps who cooperate to kill a rival are not behaving “badly,” nor is a female who tries to kill the offspring of her rival, perhaps reducing food and reproductive competition for herself. Self-serving behavior is fundamental to all social organisms, including ourselves, at least according to the Darwinian paradigm. Yet we humans spend the majority of the hours of our lives doing things that benefit others. This paradox has occupied philosophers for centuries, and more recently animal behaviorists have joined the debate. Frans de Waal's *Primates and Philosophers* follows from his masterful works on the evolutionary roots of morality, such as *Good Natured* (1996) and *Peacemaking Among Primates* (1989).

Primates and Philosophers is both more and less than advertised. Although it is de Waal, the most eloquent writer about primate behavior today, whose name appears on the cover, the book is really an edited volume in *Current Anthropology* format. De Waal's discussion of the roots of morality occupies the first half, four commentators—three philosophers (Christine Korsgaard, Philip Kitcher, and Peter Singer) and an evolutionary psychologist (Robert Wright)—take aim at his idea, and de Waal replies. Both de Waal and his critics accept the evolutionary paradigm and the objective reality of altruism and selfishness, that is, morality.

The essence of de Waal's argument is that “Veneer Theory,” the notion that moral behavior in humans is a thin veneer overlying a core of immorality or amorality, is an intellectual myth. The targets in much of his essay are Hobbes and Huxley,

who argued that humans are by nature not given to acts of altruism. De Waal argues, by contrast, that humans are by nature “good,” in the sense that altruism is a fundamental and evolved part of our biology. Nonhuman animals, such as great apes, have a less well-developed but nonetheless real basis for morality that can be revealed with cleverly designed behavioral experiments, some of which de Waal details.

The core of the argument should be whether we are anthropomorphizing when we apply human concepts of morality to nonhuman animals. De Waal has argued persuasively that to deny the foundations of morality to nonhuman animals is to live in “anthropodenial.” Certainly, the intellectual stance concerning morality in animals has come full circle, from an a priori assumption of amorality to one of morality, at least among our closest animal kin. Despite de Waal's vehemence, however, the question remains whether we can truly judge a chimpanzee's act of wanton violence against a group-mate to be immoral or, at a purely functional level, amoral.

All four commentators agree that de Waal is wrong about morality to the extent that nonhuman animals cannot be considered moral beings. Two (Kitcher and Korsgaard) argue that animals are “wantons,” lacking mechanisms that could discriminate among their various motivations. I would agree with those who argue that even our closest kin either are amoral in the human sense or at least do not exhibit any brand of moral behavior that animal behaviorists have been able to study effectively. When the Gombe male chimpanzee Frodo attacked and killed a human child in 2002, there was an immediate understanding by all concerned—except perhaps the victim's family—that Frodo's actions could not be considered immoral. He was just being a male chimpanzee, a predator who finds small, helpless mammals tasty and easy targets. Extending human concepts of morality to nonhuman animals and then using those same animals to study human morality may be circular to the point of being sketchy science.

Primates and Philosophers is an excellent book, well worth assigning in a seminar on the evolution of human or nonhuman primate behavior. However, underlying the discussion of the evolution of morality both here and elsewhere is the false premise that bad behavior is rife in the human species. That is true only for those who watch too much television news or read too many tabloid newspapers. Anthropologists, of all people, should be attuned to the fact that the goodness-evil debate is a straw man. The minute-to-minute experience of living in society tells us that people behave kindly toward one another in 99.9% of all human interactions. We obsess about the other 0.1%, albeit they include war and genocide as well as random acts of violence. The real question is why, in a life of such nearly constant goodness, the rare act of evil bursts forth.

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According to a long-standing prejudice in Western philosophy, only human beings are capable of political community and morality because humans are the only living beings that possess the capacities for reason and language. This sense of human uniqueness and moral superiority over nonhuman animals has always had its opponents. But criticism of the conventional wisdom gained significant philosophical purchase only with the writings of Charles Darwin, who argued not only that human beings are animals that share an evolutionary background with all living things but also that morality itself is an outgrowth of evolutionary processes. Frans de Waal is one of a number of contemporary thinkers who have sought to draw out the implications of evolutionary theory for our understanding of the nature and origins of morality. In *Primates and Philosophers*, de Waal marshals recent ethological research to support his contention that morality is not unique to human beings. De Waal acknowledges that only human beings have “moral systems” (p. 54), but he sees signs of moral behavior in several animal species. De Waal develops his argument by criticizing what he calls “Veneer Theory,” according to which human beings are naturally selfish and hostile and become moral beings only through a departure from this natural condition. De Waal argues that veneer theory is incapable of explaining how morality originated and that veneer theory is contradicted by ethological evidence of sympathy and even empathy in some nonhuman species (chiefly some higher primates). Two of the essential building blocks of morality are empathy and a sense of reciprocity, and both are found in some higher primates. At its worst extreme, veneer theory presents “morality as a sham so convoluted that only one species—ours—is capable of it. This view has no basis in fact, and as such stands in the way of a full understanding of how we became moral” (p. 21).

Veneer theory takes as its starting point a Hobbesian view of human beings as fundamentally selfish and as being forced to accept social cooperation as a compromise solution intended to mitigate the constant threat of violence and death with which human beings are supposedly confronted in their natural state. As implausible as veneer theory might seem—Christine Korsgaard, one of de Waal’s respondents, dismisses it as “rather silly” (p. 103)—de Waal observes that it “has dominated evolutionary writing for three decades” (p. 177). De Waal notes two interrelated problems with this account of the advent of social cooperation and morality. First, in seeing “people as essentially evil and selfish . . . the theory lacks any sort of explanation of how we moved from being amoral animals to moral beings” (p. 52). Second, veneer the-

ory fails to acknowledge that “morality [is] a direct outgrowth of the social instincts that we share with other animals” (p. 6).

On de Waal’s view, what is needed is a theory that avoids these problems by characterizing human morality as a product of evolutionary forces. Only such a theory acknowledges the fundamental connections between human morality and a variety of social phenomena observed in animals, particularly in monkeys and apes. Thus, for example, chimpanzees will sometimes console a conspecific who has been defeated in a fight with a rival (pp. 33–34); chimpanzees, dolphins, and elephants engage in “targeted helping,” which appears to show that they can understand the intentions of others (pp. 31–33); chimpanzees take part in “partner-specific reciprocal exchange,” in which individuals are more likely to render assistance to those who have helped them in the past (p. 43); and capuchin monkeys exhibit a limited, egocentric “sense of fairness,” that is, “they [show] an expectation about how they themselves should be treated, not about how everybody around them should be treated” (pp. 48–49). The more we acknowledge the presence of such capacities and reactions in nonhuman species, the less resistance we should feel to the proposition that the social sentiments that lie at the core of morality are not unique to human beings. The origin of morality is not some inexplicable departure from tendencies we share with nonhuman animals but rather the imperative to survive and the evolutionary advantage afforded by group cooperation. “A viable moral system” is generally in “touch with the biological imperatives of survival and reproduction,” and its proper goal is “to promote cooperation and harmony” (pp. 162–63).

Where veneer theory sees morality as a sharp departure from nature, de Waal argues that morality is a natural response to natural exigencies. In effect, de Waal conceives of morality as evolutionary utilitarianism. In doing so, he implicitly rejects an alternative view: that morality is not the direct product of evolutionary forces even though it is the product of human capacities that developed in accordance with evolutionary forces. On this alternative view, human beings share social instincts with a number of other animal species but differ from other species in possessing the autonomy made possible by the evolutionary emergence of reason and language; once this space of autonomy emerged, it opened up the prospect of developing ways of being in the world that do not necessarily serve biological imperatives. Living (or striving to live) in accordance with a universal moral standpoint according to which all human beings (or perhaps all sentient beings) have equal inherent moral worth would be one such way of being in the world.

Several of de Waal’s respondents in *Primates and Philosophers* touch on this alternative possibility. Korsgaard stresses that autonomy is a uniquely human capacity; whereas nonhuman animals are determined by their affective states, human beings are capable of evaluating their desires and making rational judgments that there are good reasons to act on cer-

tain desires rather than others. Philip Kitcher acknowledges that animals are capable of first-order psychological altruism, that is, “some ability to adjust [their] desires and intentions to the perceived wishes or needs of others” (p. 132). But he argues that morality involves much more than this. Whereas animals can express concern only for local conspecifics, humans possess the capacity for reflection on a variety of viewpoints; this gives rise to the standpoint of impartiality and “the genuinely *moral* sentiments” that make us value “what is ‘useful and agreeable’ to people” in general (pp. 132–33).

De Waal is to be lauded for his criticism of “anthropo-denial,” the “*a priori* rejection of shared characteristics between humans and animals” (p. 65). But he goes too far in the opposite direction in assuming that morality is a direct product of evolution and must offer specifically evolutionary advantages. Why insist that morality be fully explicable in evolutionary, which is to say scientific, terms? Such a view threatens to reduce human autonomy to a sophisticated form of deterministic animal desire, and it begs the questions how and why human beings ever became able to adopt the universal, impartial standpoint that makes possible concern for humanity as a whole and perhaps for animals as well. De Waal himself asserts that we should have some moral concern for animals (p. 78). But he explains neither what sort of evolutionary advantage is afforded by the establishment of an impartial moral standpoint nor how concern for nonhuman animals could grow out of concern for our fellow human beings. As respondent Peter Singer argues, our concern for impartial judgments and our moral way of being in the world are not products of our evolved nature (p. 144). In advocating moral concern for nonhuman animals, de Waal highlights, if only against his own intention, the limits of evolutionary theory.

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In *Primates and Philosophers*, Frans de Waal explores the evolutionary origins of human morality in animals, particularly nonhuman primates, from the vantage point of a historical and philosophical dichotomy: humans are either evil or good. If we are evil, human morality is a thin veneer on the surface (“Veneer Theory”). If we are good, human morality is an evolutionary outgrowth of “social instincts” with embedded precursors. De Waal enumerates several foundation blocks for human morality but anchors his origin story in the perception-action mechanism, specifically focusing on empathy. He admits that his theoretical framework is made up of bits and pieces struggling toward integration. The foundations of morality, according to de Waal, are kin selection, reciprocal altruism, reputation building, principles of fairness, empathy, and conflict resolution (p. 53). They are forged in in-group/

out-group dynamics and possibly even reinforced by warfare (p. 55). Even though morality has nonhuman origins, de Waal emphasizes that the unique aspects of human morality, which revolve around the community as a whole, required a jump from interpersonal relations to a focus on the greater good through the addition of disinterested concern for others (p. 49), taking “the entire community into account” (p. 54).

I agree with de Waal’s evolutionary approach, which advocates continuity between human and nonhuman primates. The transition from the nonhuman to the human condition is pure speculation, but I would add several factors to his list. Just as he uses examples from chimpanzees and capuchin monkeys, I use baboons.

Social norms do exist in baboons; they are first socially enacted and then individually appropriated. To see how this happens, one must shift the frame from high-level cognitive accomplishments to performative society (Strum and Latour 1987). Baboons tell their “ought” stories with their bodies and their interactions, reinforcing and adjusting to social norms through actions. Two examples illustrate my point. One social norm is that one should not frighten infants. When a new immigrant male scares a baby, the troop mobs him. After that, he adjusts his behavior or is mobbed again. This “ought” is the foundation for a social strategy called “agonistic buffering” (Strum 1983), whereby a male uses an infant to turn off the aggression of an opponent. Baboon friendships are the other example (Strum 1982, 1983; Smuts 1985). Such relationships are created, or “performed,” and depend on subtle adjustments of expectations of exchange, including grooming, protection from aggressive group members, and sexual cooperation. Friendships between adult males and females can be initiated by either, and the friendship process has “oughts”: what a male should do and what a female should do. Conformity with expectations creates and maintains the friendship; violations prevent or destroy it.

Thus, baboons with merely a theory of behavior, some social norms, and their bodies create a series of social contracts based on the Golden Rule: do unto some others as you would have some others do unto you. But how? Vygotsky (1978; also Wertsch 1985) suggests that, in a performative society, problems are solved in social interaction before being appropriated by individuals; the flow of cognitive solutions goes from the social to the individual rather than the other way around.

Empathy plays a pivotal role in de Waal’s evolutionary story. Empathy concerns “all processes leading to related emotional states in subject and object” (p. 38). The route to human morality is from empathy to sympathy, from automatic “emotional contagion” to cognitive empathy to “attribution” of the perspective of the “other.” Relying on empathy creates problems, however. First, empathy requires cognitive sophistication, which seriously constrains the circumstances under which morality might evolve. The second problem is the position of empathy, as an emotion, in the evolution of human morality. We know little about the role of emotions in be-

havior because emotions were a taboo topic for behaviorism and classical ethology (Strum and Fedigan 2000). From an evolutionary perspective, however, emotions can be glossed as mechanisms that make an individual want to do what was evolutionarily important to do in the past. Emotions become quick substitutes for evolutionary calculus. Thus, when cooperation, sharing, or reciprocity becomes an important behavioral adaptation, emotions develop as consequences rather than causes in the evolutionary process; only later do they motivate appropriate behavior. Gut reactions about trust, fairness, and even punishment (Nowak, Page, and Sigmund 2000; Henrich et al. 2004; Haidt 2007) develop in this context. The precursors of these complex social emotions should precede empathy as well.

Humans have extended moral consideration well beyond self, family, and tribe. The evolution of ethics incorporates region, nation, race, and all humans. We are currently struggling to include some animals and plants, and Nash (1989) predicts that the trend will extend moral action to the rest of life, rocks, ecosystems, and the planet. This evolution is based not on the extension of empathy but on the expansion of our interaction networks in human performative society. Empathy can motivate people to act in some cases, such as animal rights, but not in many others. Many environmental ethicists have observed that only after behavior changes do humans rationalize their actions by developing moral arguments.

So how do we get from animal to human morality? I disagree with de Waal's framing of arguments in such terms as "good-natured" or "bad-natured." Such dichotomies may be useful in philosophical discourse, but in today's science they are not. Humans have always had a complex combination of options. Then new aspects of adaptation made a more developed morality both possible and necessary. At minimum, the preconditions for this morality would have included resources that could be shared and a lifestyle that puts a premium on cooperation. In addition, only humans can monopolize key resources and deny to others what they need for survival. There are no monkey despots, despite the current scientific jargon. The possibility of actions precedes the evolution of emotions and mind. De Waal suggests that the highest principle of human morality is disinterested moral fairness, a focus on the greater good. There may be several routes to this end, including group selection, which now appears to be particularly applicable to humans (e.g., Richerson and Boyd 2005).

The dialogue on human morality between de Waal and the four philosophers highlights a historical reality. Formal Western philosophy began as the science of the Classical world and was a great improvement on mere opinion (Osborne 2007). Today's science benefits from powerful new theories and methods and a previously unimagined wealth of empirical data. But philosophy's long tradition of cogent and robust argumentation can contribute to the final step in any science: the best way to interpret results. The philosophers in this

book give scientists a lot to think about as we venture into speculation.

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What are the foundations of human morality? Frans de Waal addresses this question in *Primates and Philosophers*, based on his Tanner Lectures on Human Values from 2003. He draws on rich examples of primate behavior, most of which he has described eloquently in his other work, especially *Good Natured* (1996). However, a new feature of this book is its succinctness. The examples are lined up to attack a single target, which de Waal calls "Veneer Theory," the idea that morality is a thin veneer covering an amoral or immoral core inherited from our evolutionary ancestors. From this perspective, morality is an achievement of cultural processes that

keep our evil side in check. De Waal argues that morality is not a cultural overlay but an outgrowth of instincts that we share with other primates. He therefore emphasizes the continuity between the social behavior of other primates and the moral behavior of humans, exemplified by empathic responses to the plight of others and reciprocal exchanges of commodities. He attributes veneer theory to thinkers from Hobbes through Huxley to Dawkins and claims origins for his alternative approach in the works of Hume, Darwin, and Westermarck.

De Waal devotes the second part of the book to empirical evidence in favor of his naturalistic view. He consolidates evidence from apes and monkeys, including anecdotes of animal empathy, systematic observations of consolation behavior, and experiments on reciprocal exchange and fairness. These examples are intended to challenge veneer theory on empirical grounds. What is not reflected in the lectures, however, is that these behavioral phenomena are still hotly debated among primate researchers and that they give rise to more questions than conclusions. Accordingly, it is a bit surprising that in a table summarizing empirical evidence de Waal cites research that supports his view but enters just one word for veneer theory: “none.” If the argument is so easy, one must wonder whether veneer theory as described by de Waal is an actual opponent.

It is therefore all the more important that four eminent scholars of morality—Robert Wright, Philip Kitcher, Christine Korsgaard, and Peter Singer—were given the opportunity to comment on de Waal's lectures, provide alternative accounts, and introduce other conceptual distinctions. These commentaries, with a response by de Waal, constitute an exceptional feature of this book, probably its best. All four commentators agree that veneer theory in its proposed form must be rejected, but they also redescribe it in a more elaborate form or introduce crucial distinctions that cut across the divide between veneer theory and de Waal's naturalistic approach.

Wright, who opens the discussion, has been classified by de Waal as an advocate of veneer theory, but he prefers a compromise label, “naturalistic veneer theory.” Although he agrees that our morality is not a cultural overlay and that our moral intuitions are biologically grounded, he highlights the power of emotions, which do not always operate in favor of moral behavior: even if we think that our moral judgments are purely rational, they are often rationalizations of emotional imperatives.

Kitcher is persuaded by de Waal's examples that nonhuman primates are capable of psychological altruism, but he regards as crucial the question of what *kinds* of altruistic dispositions those primates possess. In particular, he cautions that attributing some altruistic dispositions to animals is not the same as saying that they act morally. Dispositions such as sympathy may be necessary for moral behavior, but they are not sufficient and must be distinguished from genuinely moral sentiments.

Korsgaard argues that the core of morality is basing our

actions on normative moral judgments, that is, on reasoning about what one ought to do. She therefore sees more discontinuity than continuity between the social behavior of animals—governed by desire, emotion, and altruistic instincts—and the human-specific ability to subjugate one's actions to general normative principles. Thus, like Kitcher, Korsgaard shifts the focus from the question of whether human nature is moral to the core characteristics of morality itself.

Singer is sympathetic to the rejection of veneer theory as portrayed in the lectures, but he thinks that more weight should be given to the differences between humans and other animals. He advocates investigating how much of human moral conduct originates in culture and how much is due to our evolved nature. He emphasizes that it is a crucial step from a “morality” based on reciprocity or empathic concern with one's own group—which de Waal sees as characteristic of the social life of nonhuman primates—to a genuine morality that reaches beyond the group. Expanding the circle of morality in this way is an accomplishment of human history rather than of the evolved nature shared with our primate relatives.

In the last part of the book, de Waal not only responds to these comments but uses them to develop a stratified model of human morality that highlights both similarities and differences between humans and other animals. The first level consists of moral sentiments, such as empathy, that can be found in both humans and other primates and serve as the building blocks of morality. On the second level de Waal places processes of social pressure that strengthen social cohesion. He attributes community concern to nonhuman primates who, for example, try to restore peace after conflicts between other individuals. He concedes that in primates these behaviors are still egocentric, closely tied to immediate consequences for the individual and “less concerned with the goals of society as a whole” (p. 168). This is a striking difference from what we find in humans, who take concern for the group much farther. The third level is self-reflective moral reasoning, and there the similarities between humans and other primates end: “The desire for an internally consistent framework is uniquely human. We are the only ones to worry about why we think what we think” (p. 174).

As a whole, then, de Waal's book provides us with a framework that identifies the foundation of human morality in the social instincts of nonhuman primates and guides us all the way to levels of morality that are unique to humans. It provides multiple perspectives on the topic of morality and should therefore become a core text, studied by everyone interested in primates, philosophers, or both.

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