

Does evolution explain human nature?



Frans de Waal

**Obviously,
says the
monkey.**

Human nature simply cannot be understood in isolation from the rest of nature. This evolutionary approach is

already difficult for many people to accept, but it is likely to generate even more resistance once its implications are fully grasped. After all, the idea that we descend from long-armed, hairy creatures is only half the message of evolutionary theory. The other half is continuity with all other life forms. We are animals not only in body but also in mind. This idea may prove harder to swallow.

We are so convinced that humans are the only intelligent life on earth that we search for other intelligent beings in distant galaxies. We also never seem to run out of claims about what sets us apart, even though scientific progress forces us to adjust these claims every couple of years. That is why we do not hear any more that only humans make tools, imitate each other, have culture, think ahead, are self-aware, or adopt another's point of view. It is the rare claim of human uniqueness that holds up for more than a decade.

If we look at our species without letting ourselves be blinded by the technological advances of the last few millennia, we see a creature of flesh and blood with a brain that, albeit three times larger than that of a chimpanzee, does not contain any new parts. Our intellect may be superior, but we have no basic wants or needs that cannot also be observed in our close relatives. I interact daily with chimpanzees and bonobos, which are known as anthropoids precisely because of their human-like characteristics. Like us, they strive for power, enjoy sex, want security and affection, kill over territory, and value trust and cooperation. Yes, we use cell phones and fly airplanes, but our psychological make-up remains that of a social primate.

To explain human behavior as a “mere” product of evolution, however, is often seen as insulting and a threat to morality, as if such a view would absolve us from the obligation to lead virtuous lives. The geneticist Francis Collins sees the “moral law” as proof that God exists. Conversely, I have heard people echo Dostoevsky's Ivan Karamazov, exclaiming that “If there is no God, I am free to rape my neighbor!”

Perhaps it is just me, but I am wary of anyone whose belief system is the only thing standing between them and repulsive behavior. Why not assume that our humanity, including the self-control needed to form a livable society, is built into us? Does anyone truly believe that our ancestors lacked rules of right and wrong before they had religion? Did they never assist others in need or complain about an unfair share? Human morality must be quite a bit older than religion and civilization. It may, in fact, be older than humanity itself. Other primates live in highly structured cooperative groups in which rules and inhibitions apply and mutual aid is a daily occurrence.

Even without claiming other primates as moral beings, it is not hard to recognize the pillars of morality in their behavior. These are summed up in our golden rule, which transcends the world's cultures and religions. “Do unto others as you would have them do unto you” brings together empathy (attention to the feelings of others) and reciprocity (if others follow the same rule, you will be treated well, too). Human morality could not exist without empathy and reciprocity, tendencies that have been found in our fellow primates.

After one chimpanzee has been attacked by another, for example, a bystander will go over to gently embrace the victim until he or she stops yelping. The tendency to console is so strong that Nadia Kohts, a Russian scientist who raised a juvenile chimpanzee a century ago, said that when her charge escaped to the roof of the house, there was only one way to get him down. Holding

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out food would not do the trick; the only way would be for her to sit down and sob, as if she were in pain. The young ape would rush down from the roof to put his arm around her. The empathy of our closest evolutionary relatives exceeds even their desire for bananas.

Reciprocity, on the other hand, is visible when chimpanzees share food specifically with those who have recently groomed them or supported them in power struggles. Sex is often part of the mix. Wild males have been observed to take great risks raiding papaya plantations, returning to share the delicious fruit with fertile females in exchange for copulation. Chimps know how to strike a deal.

Our primate relatives also exhibit pro-social tendencies and a sense of fairness. In experiments, chimpanzees voluntarily open a door to give a companion access to food, and capuchin monkeys seek rewards for others even if they themselves gain nothing from it. Perhaps helping others is self-rewarding in the same way that humans feel good doing good. In other studies, primates will happily perform a task for cucumber slices until they see others being rewarded with grapes, which taste so much better. They become agitated, throw down their measly cucumbers, and go on strike. A perfectly fine vegetable has become unpalatable! I think

of their reaction whenever I hear criticism of the extravagant bonuses on Wall Street.

These primates show hints of a moral order, and yet most people still prefer to view nature as “red in tooth and claw.” We never seem to doubt that there is continuity between humans and other animals with respect to negative behavior—when humans maim and kill each other, we are quick to call them “animals”—but we prefer to claim noble traits exclusively for ourselves. When it comes to the study of human nature, this is a losing strategy, however, because it excludes about half of our background. Short of appealing to divine intervention as an explanation, this more attractive half is also the product of evolution, a view now increasingly supported by animal research.

This insight hardly subtracts from human dignity. To the contrary, what could be more dignified than primates who use their natural gifts to build a humane society?

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