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The Opinion Pages Opinionator A Gathering of Opinion From Around the Web THE STONE Morals Without God? By Frans de Waal October 17, 2010 5:15 pm

I was born in Den Bosch, the city after which Hieronymus Bosch named himself. [1] This obviously does not make me an expert on the Dutch painter, but having grown up with his statue on the market square, I have always been fond of his imagery, his symbolism, and how it relates to humanity's place in the universe. This remains relevant today since Bosch depicts a society under a waning influence of God.

His famous triptych with naked figures frolicking around — "The Garden of Earthly Delights" — seems a tribute to paradisiacal innocence. The tableau is far too happy and relaxed to fit the interpretation of depravity and sin advanced by puritan experts. It represents humanity free from guilt and shame either before the Fall or without any Fall at all. For a primatologist, like myself, the nudity, references to sex and fertility, the plentiful birds and fruits and the moving about in groups are thoroughly familiar and hardly require a religious or moral interpretation. Bosch seems to have depicted humanity in its natural state, while reserving his moralistic outlook for the right-hand panel of the triptych in which he punishes — *not* the frolickers from the middle panel — but monks, nuns, gluttons, gamblers, warriors, and drunkards.

Five centuries later, we remain embroiled in debates about the role of religion in society. As in Bosch's days, the central theme is morality. Can we envision a world without God? Would this world be good? Don't think for one moment that the current battle lines between biology and fundamentalist Christianity turn around evidence. One has to be pretty immune to data to doubt evolution, which is why books and documentaries aimed at convincing the skeptics are a waste of effort. They are helpful for those prepared to listen, but fail to reach their target audience. The debate is less about the truth than about how to handle it. For those who believe that morality comes straight from God the creator, acceptance of evolution would open a moral abyss.

Our Vaunted Frontal Lobe

Echoing this view, Reverend Al Sharpton opined in a recent videotaped debate: "If there is no order to the universe, and therefore some being, some force that ordered it, then who determines what is right or wrong? There is nothing immoral if there's nothing in charge." Similarly, 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 for livable societies, is built into us? Does anyone truly believe that our ancestors lacked social norms before they had religion? Did they never assist others in need, or complain about an unfair deal? Humans must have worried about the functioning of their communities well before the current religions arose, which is only a few thousand years ago. Not that religion is irrelevant — I will get to this — but it is an add-on rather than the wellspring of morality.

Deep down, creationists realize they will never win factual arguments with science. This is why they have construed their own science-like universe, known as Intelligent Design, and eagerly jump on every tidbit of information that seems to go their way. The most recent opportunity arose with the Hauser affair. A Harvard colleague, Marc Hauser, has been accused of eight counts of scientific misconduct, including making up his own data. Since Hauser studied primate behavior and wrote about morality, Christian Web sites were eager to claim that "all that people like Hauser are left with are unsubstantiated propositions that are contradicted by millennia of human experience" (Chuck Colson, Sept. 8, 2010). A major newspaper asked "Would it be such a bad thing if Hausergate resulted in some intellectual humility among the new scientists of morality?" (Eric Felten, Aug. 27, 2010). Even a linguist could not resist this occasion to reaffirm the gap between human and animal by warning against "naive evolutionary presuppositions."

These are rearguard battles, however. Whether creationists jump on this scientific scandal or linguists and psychologists keep selling human exceptionalism does not really matter. Fraud has occurred in many fields of science, from epidemiology to physics, all of which are still around. In the field of cognition, the march towards continuity between human and animal has been inexorable — one misconduct case won't make a difference. True, humanity never runs out of claims of what sets it apart, but it is a rare uniqueness claim that holds up for over a decade. This is why we don't hear anymore that only humans make tools, imitate, think ahead, have culture, are self-aware, or adopt another's point of view.

If we consider our species without letting ourselves be blinded by the technical advances of the last few millennia, we see a creature of flesh and blood with a brain that, albeit three times larger than a chimpanzee's, doesn't contain any new parts. Even our vaunted prefrontal cortex turns out to be of typical size: recent neuron-counting techniques classify the human brain as a linearly scaled-up monkey brain.[2] No one doubts the superiority of our intellect, but we have no basic wants or needs that are not also present in our close relatives. I interact on a daily basis with monkeys and apes, which just like us 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. Even the posturing and deal-making among the alpha males in Washington is nothing out of the ordinary.

The Pleasure of Giving

Charles Darwin was interested in how morality fits the human-animal continuum, proposing in "The Descent of Man": "Any animal whatever, endowed with well-marked social instincts ... would inevitably acquire a moral sense or conscience, as soon as its intellectual powers had become as well developed ... as in man."

Unfortunately, modern popularizers have strayed from these insights. Like Robert Wright in "The Moral Animal," they argue that true moral tendencies cannot exist — not in humans and even less in other animals — since nature is one hundred percent selfish. Morality is just a thin veneer over a cauldron of nasty tendencies. Dubbing this position "Veneer Theory" (similar to **Peter Railton's** "moral camouflage"), I have fought it ever since my 1996 book "Good Natured." Instead of blaming atrocious behavior on our biology ("we're acting like animals!"), while claiming our noble traits for ourselves, why not view the entire package as a product of evolution? Fortunately, there has been a resurgence of the Darwinian view that morality grew out of the social instincts. Psychologists stress the intuitive way we arrive at moral judgments while activating emotional brain areas, and economists and anthropologists have shown humanity to be far more cooperative, altruistic, and fair than predicted by selfinterest models. Similarly, the latest experiments in primatology reveal that our close relatives will do each other favors even if there's nothing in it for themselves.

Chimpanzees and bonobos will voluntarily open a door to offer a companion access to food, even if they lose part of it in the process. And **capuchin monkeys** are prepared to seek rewards for others, such as when we place two of them side by side, while one of them barters with us with differently colored tokens. One token is "selfish," and the other "prosocial." If the bartering monkey selects the selfish token, it receives a small piece of apple for returning it, but its partner gets nothing. The prosocial token, on the other hand, rewards both monkeys. Most monkeys develop an overwhelming preference for the prosocial token, which preference is not due to fear of repercussions, because dominant monkeys (who have least to fear) are the most generous.

Even though altruistic behavior evolved for the advantages it confers, this does not make it selfishly motivated. Future benefits rarely figure in the minds of animals. For example, animals engage in sex without knowing its reproductive consequences, and even humans had to develop the morning-after pill. This is because sexual motivation is unconcerned with the reason why sex exists. The same is true for the altruistic impulse, which is unconcerned with evolutionary consequences. It is this disconnect between evolution and motivation that befuddled the Veneer Theorists, and made them reduce everything to selfishness. The most quoted line of their bleak literature says it all: "Scratch an 'altruist,' and watch a 'hypocrite' bleed."[3]

It is not only humans who are capable of genuine altruism; other animals are, too. I see it every day. An old female, Peony, spends her days outdoors with other chimpanzees at the Yerkes Primate Center's Field Station. On bad days, when her arthritis is flaring up, she has trouble walking and climbing, but other females help her out. For example, Peony is huffing and puffing to get up into the climbing frame in which several apes have gathered for a grooming session. An unrelated younger female moves behind her, placing both hands on her ample behind and pushes her up with quite a bit of effort, until Peony has joined the rest.

We have also seen Peony getting up and slowly move towards the water spigot, which is at quite a distance. Younger females sometimes run ahead of her, take in some water, then return to Peony and give it to her. At first, we had no idea what was going on, since all we saw was one female placing her mouth close to Peony's, but after a while the pattern became clear: Peony would open her mouth wide, and the younger female would spit a jet of water into it.

Such observations fit the emerging field of animal empathy, which deals not only with primates, but also with canines, elephants, even rodents. A typical example is how chimpanzees console distressed parties, hugging and kissing them, which behavior is so predictable that scientists have analyzed thousands of cases. Mammals are sensitive to each other's emotions, and react to others in need. The whole reason people fill their homes with furry carnivores and not with, say, iguanas and turtles, is because mammals offer something no reptile ever will. They give affection, they want affection, and respond to our emotions the way we do to theirs.

Mammals may derive pleasure from helping others in the same way that humans feel good doing good. Nature often equips life's essentials — sex, eating, nursing — with built-in gratification. One study found that pleasure centers in the human brain light up when we give to charity. This is of course no reason to call such behavior "selfish" as it would make the word totally meaningless. A selfish individual has no trouble walking away from another in need. Someone is drowning: let him drown. Someone cries: let her cry. These are truly selfish reactions, which are quite different from empathic ones. Yes, we experience a "warm glow," and perhaps some other animals do as well, but since this glow reaches us *via* the other, and *only* via the other, the helping is genuinely other-oriented.

Bottom-Up Morality

A few years ago Sarah Brosnan and I demonstrated that primates will happily perform a task for cucumber slices until they see others getting grapes, which taste so much better. The cucumber-eaters become agitated, throw down their measly veggies and go on strike. A perfectly fine food has become unpalatable as a result of seeing a companion with something better.

We called it *inequity aversion*, a topic since investigated in other animals, including dogs. A dog will repeatedly perform a trick without rewards, but refuse as soon as another dog gets pieces of sausage for the same trick. Recently, Sarah reported an unexpected twist to the inequity issue, however. While testing pairs of chimps, she found that also the one who gets the *better* deal occasionally refuses. It is as if they are satisfied only if both get the same. We seem to be getting close to a sense of fairness.

Such findings have implications for human morality. According to most philosophers, we reason ourselves towards a moral position. Even if we do not invoke God, it is still a top-down process of us formulating the principles and then imposing those on human conduct. But would it be realistic to ask people to be considerate of others if we had not already a natural inclination to be so? Would it make sense to appeal to fairness and justice in the absence of powerful reactions to their absence? Imagine the cognitive burden if every decision we took needed to be vetted against handed-down principles. Instead, I am a firm believer in the Humean position that reason is the slave of the passions. We started out with moral sentiments and intuitions, which is also where we find the greatest continuity with other primates. Rather than having developed morality from scratch, we received a huge helping hand from our background as social animals.

At the same time, however, I am reluctant to call a chimpanzee a "moral being." This is because sentiments do not suffice. We strive for a logically coherent system, and have debates about how the death penalty fits arguments for the sanctity of life, or whether an unchosen sexual orientation can be wrong. These debates are uniquely human. We have no evidence that other animals judge the appropriateness of actions that do not affect themselves. The great pioneer of morality research, the Finn Edward Westermarck, explained what makes the moral emotions special: "Moral emotions are disconnected from one's immediate situation: they deal with good and bad at a more abstract, disinterested level." This is what sets human morality apart: a move towards universal standards combined with an elaborate system of justification, monitoring and punishment.

At this point, religion comes in. Think of the narrative support for compassion, such as the Parable of the Good Samaritan, or the challenge to fairness, such as the Parable of the Workers in the Vineyard, with its famous conclusion "The last will be first, and the first will be last." Add to this an almost Skinnerian fondness of reward and punishment — from the virgins to be met in heaven to the hell fire that awaits sinners — and the exploitation of our desire to be "praiseworthy," as Adam Smith called it. Humans are so sensitive to public opinion that we only need to see a picture of two eyes glued to the wall to respond with good behavior, which explains the image in some religions of an all-seeing eye to symbolize an omniscient God.

The Atheist Dilemma

Over the past few years, we have gotten used to a strident atheism arguing that God is not great (Christopher Hitchens) or a delusion (Richard Dawkins). The new atheists call

themselves "brights," thus hinting that believers are not so bright. They urge trust in science, and want to root ethics in a naturalistic worldview.

While I do consider religious institutions and their representatives — popes, bishops, mega-preachers, ayatollahs, and rabbis — fair game for criticism, what good could come from insulting individuals who find value in religion? And more pertinently, what alternative does science have to offer? Science is not in the business of spelling out the meaning of life and even less in telling us how to live our lives. We, scientists, are good at finding out why things are the way they are, or how things work, and I do believe that biology can help us understand what kind of animals we are and why our morality looks the way it does. But to go from there to offering moral guidance seems a stretch.

Even the staunchest atheist growing up in Western society cannot avoid having absorbed the basic tenets of Christian morality. Our societies are steeped in it: everything we have accomplished over the centuries, even science, developed either hand in hand with or in opposition to religion, but never separately. It is impossible to know what morality would look like without religion. It would require a visit to a human culture that is not now and never was religious. That such cultures do not exist should give us pause.

Bosch struggled with the same issue — not with being an atheist, which was not an option — but science's place in society. The little figures in his paintings with inverted funnels on their heads or the buildings in the form of flasks, distillation bottles, and furnaces reference chemical equipment.[4] Alchemy was gaining ground yet mixed with the occult and full of charlatans and quacks, which Bosch depicted with great humor in front of gullible audiences. Alchemy turned into science when it liberated itself from these influences and developed self-correcting procedures to deal with flawed or fabricated data. But science's contribution to a moral society, if any, remains a question mark.

Other primates have of course none of these problems, but even they strive for a certain kind of society. For example, female chimpanzees have been seen to drag reluctant males towards each other to make up after a fight, removing weapons from their hands, and high-ranking males regularly act as impartial arbiters to settle disputes in the community. I take these hints of *community concern* as yet another sign that the building blocks of morality are older than humanity, and that we do not need God to explain how we got where we are today. On the other hand, what would happen if we were able to excise religion from society? I doubt that science and the naturalistic worldview could fill the void and become an inspiration for the good. Any framework we develop to advocate a certain moral outlook is bound to produce its own list of principles, its own prophets, and attract its own devoted followers, so that it will soon look like any old religion.

Frans de Waal's essay is the subject of this week's forum discussion among the humanists and scientists at On the Human, a project of the National Humanities Center.

Also, view an excerpt from a Bloggingheads.tv discussion about this post between Frans de Waal and Robert Wright, author of "The Moral Animal."



Or watch the entire discussion at Bloggingheads.tv.

NOTES

[1] Also known as s'Hertogenbosch, this is a 12th-century provincial capital in the Catholic south of the Netherlands. Bosch lived from circa 1450 until 1516.

[2] Herculano-Houzel, Suzana (2009). The human brain in numbers: A linearly scaled-up primate brain. *Frontiers in Human Neuroscience* 3: 1-11.

[3] Ghiselin, Michael (1974). *The Economy of Nature and the Evolution of Sex*. Berkeley, CA: University of California Press.

[4] Dixon, Laurinda (2003). Bosch. London: Phaidon.

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