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### **Primates and Philosophers**

Frans De Waal, a Dutch primatologist and ethologist, is a professor of primate behavior in the Emory University psychology department in Atlanta Georgia. He is known for his work on the social intelligence of primates and has continuously drawn similarities between behavior in humans and behavior in other primates. In his book, *Primates and Philosophers: How Morality Evolved*, De Waal argues that modern-day evolutionary biology overly emphasizes Veneer theory as the origin of morality which is based not in evolution but in human culture. Veneer Theory sees morality as a choice that was taken by humans alone. This theory has a dualistic view that pits humans against animals and culture against nature. On the other hand there is also Darwinian Theory which views morality as something that evolved and asserts that there is continuity between human morality and the social tendencies that are seen in animals. Among the many advocates of this latter theory is Frans De Waal. Using evidence based on his extensive research on primate behavior, De Waal argues against this theory by drawing on Darwinian ideas and recent scientific advances to show that humans are moral by nature and not by choice. De Waal postulates that morality evolved with foundations in kin selection and reciprocal altruism which increased the ability of the human species to both survive and reproduce. He believes that these precursors and their derivatives can be observed in other animals such as apes which suggest a transition from a social to a moral animal.

Veneer theory considers morality to be an overlay or veneer that covers humans' intrinsic nature to be selfish and competitive. It assumes that humans are bestial by nature and therefore behave in a bad way. Because people are inherently bad, any good behavior that is expressed by a person can simply be attributed to a thin veil of morality that mysteriously disguises this negative inner core. This idea was proposed by Thomas Huxley in 1893 in Oxford, England and can be best summarized by Ghiselin's famous quip: "Scratch an 'altruist,' and watch a 'hypocrite' bleed" (De Waal 9). Huxley believed that morality was not biologically part of human nature and so humanity's ancestors became moral by choice and not through evolution. De Waal believes this is a weak argument for two reasons. First, Huxley knowingly limited the explanatory power of evolution when he said that "...what makes us human could not be handled by evolutionary theory," and that humans could only become moral by, "...opposing our own nature" (De Waal 7). This was a surprising position to take for someone who had gained the reputation of being "Darwin's Bulldog" due to his great advocacy for evolution. Second, Huxley never gave any explanation or empirical evidence of how humans found, "...the will and the strength to defeat the forces of their own nature" (De Waal 8). This lack of empirical evidence for Veneer Theory is something that De Waal points out as a flaw of the argument when he introduces its evolutionary counterpart based on Darwinian Theory.

Unlike the Huxleyan school of thought which sees morality as a novel innovation achieved by humanity alone, the evolutionary school of ethics, "...views morality as a direct outgrowth of the social instincts that we [humans] share with other animals" (De Waal 6). According to De Waal, a key factor in this idea is that of reciprocity which involves, "...exchanged acts that, while beneficial to the recipient, are costly to the performer" (De Waal 13). De Waal also asserts that Darwin firmly believed that his theory was capable of

accommodating this origin of morality and that it did not conflict with the harshness of the evolutionary process as some may believe. Indeed Darwin pointed out the continuity between humans and other animals even in terms of morality when he said that, “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, or nearly as well developed, as in man” (Darwin 71-72).

De Waal explains how all species that rely on cooperation also demonstrate other tendencies such as loyalty and helping which evolved within the context of a close-knit social life. This is something that he believes helps to bring animal altruism closer to that of humans. Furthermore, De Waal explains that when discussing what constitutes morality, it is more important to focus on the underlying emotions, intentions, and capacities behind an action over the actual behavior itself:

*In other words, whether animals are nice to each other is not the issue, nor does it matter much whether their behavior fits our moral preferences or not. The relevant question is rather whether they possess capacities for reciprocity and revenge, for the enforcement of social rules, for the settlement of disputes and for sympathy and empathy (De Waal 16).*

These questions are important because if reciprocity and its derivatives can be observed in other animals such as apes, then this suggests that the human species transitioned from a social to a moral animal.

One way that one can see the transition of humans from social to moral beings is through empathy, which grew from an inherent survival mechanism. De Waal states:

*Survival often depends on how animals fare within their group, both in a cooperative sense (e.g., concerted action, information transfer) and in a competitive sense (e.g., dominance strategies, deception). It is in the social domain, therefore, that one expects the highest cognitive achievements. Selection must have favored mechanisms to evaluate the emotional states of others and quickly respond to them. Empathy is precisely such a mechanism (De Waal 27).*

Social animals exhibit empathy in two ways. The first is sympathy in which an individual feels sorrow or concern for another and tries to help the other alleviate their stress. The second is personal distress where an individual becomes distressed upon seeing another in distress and they help the other only to alleviate their own stress. When an emotional state of one animal sparks a similar emotional state in another animal some refer to this as an “emotional contagion”. The former is motivated by selfless reasons, whereas the latter is motivated by selfish reasons. The “emotional contagion”, however, is neither selfish nor selfless, but rather an immediate emotional feeling in response to a distressed individual. It is important to note that social animals exhibit empathy, whether selfless or not, because they are able to recognize the distress of others. This recognition is a necessary step for humans to transform into moral beings by acting upon their empathy in order to alleviate the stress of others. Since evolution is a gradual process and rarely discards any traits, De Waal argues that, “...it is reasonable to assume that the altruistic and caring responses of other animals, especially mammals, rest on similar mechanisms”(De Waal 28). There is ample evidence that suggests that social animals are influenced by their empathy to help others in need, regardless of whether or not they are of the same species.

An experiment was conducted wherein rats could obtain food by pressing on a lever. When this experiment was modified to shock a neighboring rat every time the lever was pressed, the rats would refrain from doing so. In a similar experiment conducted by De Waal using rhesus monkeys instead of rats, the monkeys showed an even stronger inhibition than rats. One monkey stopped pulling the lever for five days and another for twelve days. These monkeys starved themselves for several days to avoid inflicting pain on others. It is unclear, however, whether these rats and monkeys did so to alleviate personal distress caused by emotional contagion or

whether their actions were altruistic. Further research on animal empathy suggests that nonhuman animals, particularly monkeys and apes, have altruistic motivations behind their actions.

Frans De Waal mentions Ladygina-Kohts, a primate researcher, who wrote about her chimpanzee who showed strong signs of empathetic behavior. She wrote that the best way to get her male chimpanzee, Joni, down from the roof (better than any reward or punishment) was to arouse his sympathy. She said sometimes he would not come down from the roof despite her persistent calls but then she would pretend to cry and put her hands over her face. Joni would immediately come down to comfort her, looking at her face, and looking around the surrounding area in search of her offender. Another example of non-human animals displaying genuine concern for another animal can be seen in the story of Kuni, a female bonobo monkey. One day she caught a starling and tried to protect it from the zoo keeper who was trying to urge the ape to let it go. She climbed to the top of the tallest tree she could find and carefully spread its wings and threw it as hard as she could over the barrier of the enclosure. The bird fell short and landed on the floor where Kuni protected it from a curious younger ape. These are prime examples of nonhuman animals illustrating altruistic behavior. Neither of them are in the same social group nor same species, nor do they seem to benefit their survival in any way. Therefore, it seems reasonable to conclude that their actions were done out of true genuine concern for the welfare of the other.

Further study of animal empathy seems to suggest that empathy involves a three part process. First, emotional contagion sparks an emotional reaction in an individual who observes another animal in distress. This process is immediate and often done unconsciously. Second is a cognitive empathy where the individual tries to understand the reason for the others emotion.

The last step is when the individual understands and fully adopts the other's perspective. This is known as the Russian Doll Model because similar to a Russian doll, it contains layers in which the outer layers depend on and build upon the inner ones. De Waal suggests that, "...our external moral selves are ontologically continuous with a nested series of inner 'pre-human selves.' And all the way down to the tiny little figure in the very center, these selves are homogeneously good-natured" (De Waal xiv). This theory sharply opposes Huxleyan Veneer theorists who believe humans are "very bad" at their core and are only nice, fair or empathetic due to a choice to appear moral.

It appears that reciprocity and fairness, two traits visible in our species' closest living relatives, are necessary for this form of morality. In order to elucidate an understanding of these phenomena, two experiments were conducted. The first shows that chimpanzees are able to remember and reward those who groom them, the second sheds light on the importance of understanding the expectations of fairness inherent in social animals.

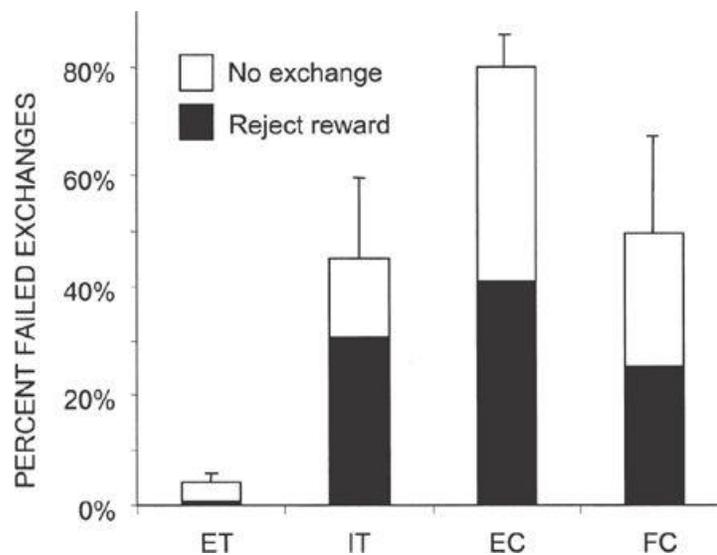
The hypothesis De Waal is trying to vet is that adult chimpanzees are more likely to share food with fellow chimpanzees who had previously groomed them. The procedure for this experiment was to observe chimpanzees in a zoo during the morning, before they were fed. If the chimpanzees were not hungry this procedure would produce strange results. Therefore, researchers kept track of which chimpanzee groomed which each morning before they were fed. This ended up netting a database of nearly seven thousand interactions. The data shows that chimpanzees are indeed much more likely to share food after a relaxing grooming session. Furthermore, if chimpanzee B had just groomed chimpanzee A, it was even more likely that A would share food with B. This is evidence of, "partner-specific reciprocal exchange," a trait without which morality could simply not exist (De Waal 42).

Other traits necessary for the foundation of morality are cooperation as well as notions of fairness. This would seem to have been inherited by the human species and other primates from a common ancestor and is linked to “partner specific reciprocal exchange”. As animals become more social and cooperation increases, it becomes more important for them to have expectations of cooperative outcomes. This, “sense of social regularity” (De Waal 95) is what let humans’ ancestors cooperate with each other while ensuring that each still received a fair share.. The importance of showing these traits in a closely related species is vital for explaining the evolutionary origins of morality. De Waal notes that the expectations of animals are, “...the most important unstudied topic in animal behavior, which is all the more lamentable as it is the one issue that will bring animal behavior closest to the ‘ought’ of behavior that we recognize so clearly in the moral domain”(De Waal 45). So, in this way science may be able to draw conclusions about normative questions, at least for capuchin monkeys.

Capuchin monkeys are able to learn to ascribe value to small tokens and use them for bartering. The procedure for the experiment De Waal conducted was to assign two monkeys to a group. Next, the subject and the partner are placed in adjacent cages and each monkey is then handed a token in turn, which is usually exchanged right away for a reward. The subject of De Waal’s test always gets to see his group-mate’s exchange right before his or her own.

De Waal uses four different tests to gauge the behavior of the capuchins (De Waal 48). The Equity Test (ET) is one which is fair. Both the subject and the partner get the same low-value reward, for the token. It can be seen that during the ET, the subject monkeys were very agreeable regarding trading tokens for low-value reward.. The Inequality Test (IT) is one in which the partner gets a high-value reward, while the subject gets a low-value reward. It is apparent that the subject in the IT test reacts negatively, usually not accepting the low-value

reward after witnessing the partner's unfair transfer. In the Effort Control Test (EC), the partner receives a high-value reward without having to trade the token for it. This elicited the most negative response from the subjects, with nearly 80% of them refusing to trade their seemingly worthless token. Finally in the Food Control Test (FC), which is fundamentally the same as the ET, the subject can see a high-value reward close by during the trade. This shows how just the idea that the playing field may be unfair is enough to tarnish fairness in the mind of a capuchin.



(De Waal 48)

When a subject would receive a low-value reward after its partner received a higher value reward, negative reactions were observed quite frequently, such as throwing the token away or refusing to accept the reward at all. This illustrates that capuchin monkeys, with whom humans share a common ancestor, have an expectation to be treated fairly. It is important to note however that these animals do not have expectations about how other monkeys should be treated. This is apparent because a partner receiving a high-value reward fails to share it with the subject. This behavior can also be seen from time to time in the human world, which may be why Huxley championed a Veneer Theory school of thought which is still common today.

De Waal has shown where Veneer Theory falls short and introduces a paradigm which neatly explains morality as a necessary trait of highly social animals. This new theory proposes emotional processing as the driving force behind moral judgment and explains where such emotions take root. Evolution, (more specifically natural selection) are often thought of as cruel and pitiless processes that are “red in tooth and claw.” This may be one reason why Huxley and others have a difficult time seeing a disinterested, violent process as the genesis of morality. However to jump to that conclusion, is to commit to what De Waal calls “the Beethoven error”(De Waal 57). Just as Beethoven created many beautiful compositions in a dingy, disorganized apartment in Vienna, so to have the harsh disinterested processes of natural selection given way to animals that are kind to one another. Natural selection favors organisms which can increase their fitness in the environment regardless of how that goal is achieved. Kin selection and reciprocal altruism are ways to ensure the survival of a social organism’s genetic information. Based on this, De Waal has pointed out how feasible it would be for human thoughts, feelings, and behaviors to be explained within the confines of evolution.

Works Cited

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