ETHICS IN THE LIGHT OF EVOLUTION

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It seems to me that a major issue for any theory of ethics in the twenty-first century is the interplay of the absolutist tendency of virtually the entire history of ethics in the west and the relativistic fact of anthropology that virtually no ethical or moral principle is universal. There appears to be no action which is moral in one culture that is not at least morally neutral, if not actually morally required, in some other culture. However, relativist ethics are counter to our deeply felt moral intuition that *our* ethical principles are really true and true for everyone, everywhere. While as educated people, we can come to understand that our neighbor's fishforks, to borrow Bertram Russell's example, are just as good as our own, we resist the idea that human sacrifice was really morally acceptable for the Aztecs. I find this tendency to be universal. Although my students have carefully learned to mouth the currently fashionable relativism in high school, when "push come to shove" and the issue is one on which they have genuine moral opinions, relativism flies out the window and they assert that their position is "really true."

How then can the history of philosophy and our own moral intuitions be reconciled with the clear evidence of science that moral principles are *not* universal? To some extent, the problem of ethics in contemporary philosophy reminds me of the problem of universals in scholastic philosophy. Parallel to the idealistic position on universals which asserted that the *ideos* are really real and independent of human perception is the absolutist position on ethics which asserts that there exists an ethical theory, system, or principle which is true for all times and all places and would, presumably, be as persuasive to "little green men from Mars" as it is to us. Likewise the nominalist position on the issue of universals is paralleled by the relativistic position in ethics in which ethical principles are merely the result of accidental or pragmatic issues which just happen to work in some particular time or place. Just as a nominalist would assume that Martian invaders would be unable to understand human language, so a moral relativist would assume that human ethical systems would leave our hypothetical Martian blank.

Is there then a conceptualist theory of ethics which, like Aquinas' conceptualism, finds a middle ground between the absolutes of absolutist and relativistic ethics? I think so and I think that it can best be discovered by considering where ethics comes from, that is, how it evolves. It further seems reasonable to me to consider the issue in terms of science since science has presented us with the problem. In particular, it seems that in order to understand ethical theories, we must understand the origin and nature of ethics itself.

Of course, an absolutist ethical theorist will probably at this point accuse me of committing the naturalistic fallacy, but that charge, it seems to me, begs the question. Only if one grants that ethics exists in some Platonic realm, independent from actual human life, is the naturalistic fallacy a fallacy. If we admit that ethics is a human phenomena, then we must clearly seek to understand it by understanding where it comes from.

My approach parallels a major movement in the science of biology. A number of books have appeared, some recently[1], but all based on the seminal work of Richard Dawkins in *The Selfish Gene*[2] which attempt to understand ethics in biological terms. Virtually all of them start by considering the development of altruism within the animal kingdom.

However, it appears to me that they have a confused idea of the term "altruism." By "altruism" they invariably mean something different from what a philosopher means by the term. In order to make this distinction clear, I will refer to the various things that the biologists are talking about as "biological altruism," and I will refer to what philosophers understand the term to mean with the term "philosophical altruism."

When biologists speak of altruism, they are talking either about any behavior which benefits not the individual but the individual's genes or behavior which involves reciprocal benefit ("I'll scratch your back and you scratch mine"). Of the first, we might way that I would be willing to die for two siblings or four cousins. That is, since two siblings or four cousins share the same percentage of my genes, on the average, if these relatives live and reproduce, as many of my genes will make it into the next generation as if I live and reproduce. Since evolution actually selects, not for individuals, but for genes, a species in which this sort of behavior (dying to save relatives) exists in one in which this behavior will be selected.

Indeed, animal behavior confirms this rather odd idea. A classic example is the vervet monkey which issues a warning cry that there is a predator, even though such an act makes it more likely that the monkey issuing the warning will be noticed by the predator and so eaten.[3] However, since the members of a troop of monkeys are generally related, the monkey giving the alarm is actually increasing the survival of its genes by this sacrifice. Numerous other examples could be cited but this one example will serve to make the point.

Likewise, many actions that biologists refer to as altruism involve mutual benefit. Chimpanzees will form coalitions in order to rise in the hierarchy of the troop, but a return is ultimately expected.[4] Any chimp who did not pay off his or her debts would have about as long a reign of power as a politician in Northern New Mexico who forgot who paid for his campaign.

Thus, biological altruism is not what a philosopher means by altruism at all. Philosophical altruism refers to an action which brings the agent no benefit whatsoever. Furthermore, biological altruism based on genes can, by definition, not be extended beyond biological kin. While the occasional chimpanzee will adopt an orphan, this behavior is infrequent and seems to be more "borrowed" maternal behavior than anything like philosophical altruism.[5]

Perhaps the clearest way to understand the limitations of this sort of approach to ethics is shown by a recent experiment.[6] Chimpanzee A is given access to two buttons. Pushing the first button gets him or her (gender is irrelevant in this experiment) a banana. Pushing the second button both gets chimpanzee A a banana and also provides chimpanzee B in the adjoining cage over with a banana. Pushing the second button costs chimpanzee A nothing. However, A never pushes the second button. He or she always pushes the first.

If we imagine two human beings in this situation, we know that any normal human being would push the second button. Even if you did not like the person in the next cage over, consistently denying him or her a banana would be almost impossible given that it cost you nothing to provide one.

The chimpanzee simply does not have any sense of altruism as a human being understands it. This is understandable because chimpanzees do not need altruism, at least in the context of food. In the wild, chimpanzees do not share food on a day-to-day level.[7] The sort of food that chimpanzees generally eat is available (or not available) equally to all and there is no need to share. Each individual finds his or her own food and thus, although the fact of eating is done at the same time, it is not communal.

Human beings, however, do share food. Indeed, one famous theory of human evolution considers food sharing to be one of the basic behaviors which led to our evolution.[8] The human brain is an enormously expensive organ.[9] It requires an inordinate percentage of the energy that we take in. It could not possibly be supported by the vegetarian diet that our chimpanzee cousins eat. Rather, in order for the brain to expand as it did, some more concentrated source of food was needed. The energy level of food can be raised either by finding a more energy-laden source or by cooking food so that otherwise unavailable calories can be absorbed. Since the second solution requires precisely the large brain that is at issue (to light the fire) our ancestors were forced to find food sources that contained more energy. That source was meat, either hunted or scavenged. Now, chimpanzees do occasionally capture, kill and eat baby baboons, but it is very much an opportunistic event which does not contribute much energy to the troop as a whole, especially as only those chimps which were involved in the hunt get any of the meat and there is a definite tendency for the chimps doing the hunting to be related.[10] Since the most critical need, in terms of brain development, is prior to and just after birth, the females, who would need the extra calories the most, are the members of the troop least likely to get any.

Somehow, our ancestors shifted to a pattern of food sharing.[11] In this pattern the male members of the troop go off to hunt or scavenge, both of which are dangerous and thus are not suitable activities for the female with young in hand. Meanwhile, the females gather, but unlike the chimps, do not eat the vegetable food which has always supported primate life. Both groups then bring the results of the "hunting and gathering" back to a home space where it is shared. The meat which allows for brain development is not always found. The vegetable food which is low calorie is always available but is not enough by itself. Taken together the troop can both exist on a day to day level and nourish that expensive brain. In a sense, a stew is the essence of humanity.

The problem is rather obvious: How did proto-humans get from the individualistic food patterns of other primates to the sort of food sharing this theory requires? In essence, we can restate the problem in the following way. How did a troop of primates turn into a pack, such as we see among wolves, in which food sharing occurs among adults?[12]

Wolf packs are not composed exclusively of related members.[13] Furthermore, while the pack structure may benefit all its members to some extent, since the pack structure allows for more efficient hunting, wolf-breeding strategy, which thus violates the principles of biological altruism, does not. In a functioning pack, generally only the alpha pair actually breeds. The rest of the pack assist in the raising of the alpha pair's puppies even though they may not be related to the alpha pair. Thus, there is no genetic benefit to the non-related members of the pack. Furthermore, it is not clear that the non-related members are unable to breed on their own. Recent introductions of wolves in New Mexico and

Arizona have shown that single pairs of wolves can successfully survive and reproduce.[14] Apparently, there is an overwhelming need among wolves to form packs, just as there is among dogs. In order for the pack to work, there has to be a wired-in set of social behaviors which make living in the pack possible. This wired-in behavior then overcomes the usual tendency to limit altruism to biological altruism and extends it to something like a proto-philosophical altruism. Of course, if too many non-related wolves were involved in packs, evolution would eventually select against this behavior, but apparently the advantage of the behavior is such that it overcomes the disadvantages of non-breeding in a few cases.

Chimpanzees never behave this way. A chimp will always mentally ask himself, "What do I get out of this?" Chimps are egoists. Wolves are not and they consider the good of the pack.

Proto-humans, then, had to find some way to behave like wolves while having the mentality of a primate. Adding a complex set of wired-in behaviors would be difficult, if not impossible, in the short (relatively speaking) time during which human evolution occurred.[15] Rather, for such a rapid change, we need to look for a single evolutionary shift. I believe that shift was the development of empathy and what psychologists have come to call "a theory of mind."[16] Empathy is the awareness that another entity experiences an emotion. Dogs have a sense of empathy. Try bursting into tears in front of the family dog and see how it responds. However, human beings also have the capacity to recognize that the emotion I am now experiencing may differ from the emotion you are now experiencing. That is, I can understand that what I am thinking may differ from what you are thinking. This requires that I realize that you have a mind which functions like mine, but which may have a different content than mine.

This capacity appears between the ages of three and five in normal human children. By understanding *that* you think, I develop a level of empathy with you that is impossible as long as you are, in some sense, part of the furniture of the universe. When I can enter into your mind, I can start to treat you as I treat myself. This, I wish to argue, is the origin of a sense of ethics.

However, there is clearly very little content in this sense, which I have argued elsewhere is indeed innate (at least for normal human beings). Ethics begins with a sense of concern for the other rising out of the fact that I can see the other as like me. I wish to treat the other well because I feel with him or her. His pain becomes mine because I can imagine it.

But concern does not tell me what to do. The small child who shows concern, but does not know what to do when someone is unhappy shows us just how limited this innate sense is. Rather, it is a basis on which a set of learned behaviors can be erected. Concern must move to what John Dewey refers to as "intelligent sympathy."[17] These learned behaviors are the equivalent to the wolf pack's wired-in behaviors. Like language, moral principles and then ethical systems have evolved and mutated during the thousands of years of human development, always resting on this basic sense of concern, but developing far beyond that simple beginning.

At first, the "moral" principles of proto-humans were probably very simple. "Don't eat everything yourself before you get home." "Share with the group." "Work together to catch the monkey or scare the lion away from his kill." "Look after everyone's babies."

A sort of evolution of rules probably occurred. A behavioral rule that did not work made that group less successful and they died out. However, probably there were many times when two rules would produce the same effect, and one group made one choice while another group made another.

Thus, just as there are many languages, all of which work pretty much equally well to communicate, there are numerous moral systems, all of which work pretty much successfully to allow societies to function. However, all rest, ultimately, on the development of a sense of concern that is one of the critical evolutionary events in human history.

This, then, is my proposal for a compromise between the extremes of absolutism and relativism in ethics. There is indeed a universal principle of ethics: the sense of concern. However, it is not something to be found in a Platonic realm of forms, but something "wired" into the human mind by evolution. Furthermore, an ethical system "works" only insofar as it expresses the sense of concern that is the basis of ethics and only insofar as it allows the society to function. Thus, if we feel the need to evaluate an ethical principle, we can use an essentially pragmatic criteria; that is, does it work to hold society better than its alternative?

NOTES

1. For example, consider Nigel Barber, *Kindness in a Cruel World: The Evolution of Altruism* (New York: Prometheus, 2004) and Michael Shermer, *The Science of Good and Evil: Why People Cheat, Gossip, Care, Share and Follow the Golden Rule* (New York: Holt, 2004).

2. Richard Dawkins, *The Selfish Gene* (London: Granada, 1978).

3. J. A. Horrocks and W. Hunte, "Sentinel Behavior in Vervet Monkeys: Who Sees Whom First?" *Animal Behavior* 34 (1986): 1566-1567.

4. Frans de Waal, *Chimpanzee Politics: Power and Sex Among Apes* (Baltimore: Johns Hopkins, 1998) 93-97.

5. Jane Goodall, *The Chimpanzees of Gombe: Patterns of Behavior* (Cambridge: Harvard, 1986).

6. Joan B. Silk, et. al., "Chimpanzees are Indifferent to the Welfare of Unrelated Group Members," *Nature* vol. 437: 37 (Oct., 2005): 1357-1359.

7. Richard E. Leakey and Roger Lewin, *Origins: What New Discoveries Reveal About the Emergence of Our Species and its Possible Future* (New York: Dutton, 1977) 148.

8. Richard Potts, *Early Hominid Activities at Olduvai* (Los Angeles: Aldine, 1988).

9. L. C. Aiello and P. Wheeler, "The Expensive-Tissue Hypothesis: The Brain and the Digestive System in Human and Primate Evolution," *Current Anthropologist* 34 (1993): 184-194.

10. K. Kawanaka, "Further Studies on Predation by Chimpanzees of the Mahale Mountains," *Primates* 23 (1982): 364-384.

11. Potts, *Early Hominid.*

12. L. David Mech, *Wolf: The Ecology and Behavior of an Endangered Species* (Minneapolis: U of Minnesota, 1970) 50.

13. Mech 45.

14. 15. "Blue Range Wolf Reintroduction Area (BRWRA), Mexican Wolf Blue Range Reintroduction Project Monthly Update January 1-31, 2006," *U. S. Fish and Wildlife Service*, February 13, 2006. <http://www.fws.gov/ifw2es/mexicanwolf/BRWRP_notes.cfm>.

15. The shift from australopithecine to homo took only about 500,000 years, a mere instant in terms of evolution Donald Johanson and Blake Edger, *From Lucy to Language* (New York: Simon and Schuster, 1996) 38.

16. N. Humphrey, "The Social Function of the Intellect," *Growing Points in Ethnology*, eds., P. P. G. Bateson and R. A. Hinde (Cambridge: Cambridge UP, 1976) 303-317.

17. John Dewey, "Ethics 1908", *John Dewey: The Middle Works*, vol. 5, ed. Jo Ann Boydston (Carbondale: Southern Illinois UP, 1978) 128.