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The Evolutionary Basis for Ethics Contribution to GTI Forum [Toward a Great Ethics Transition](#)

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In his opening [essay](#), Brendan Mackey reflects on the necessity of a common ethical framework, indicating its appearance in various international declarations. But on what basis does such a common ethical framework, such a universal ethic, rest?

In his 1933 article “The Conservation Ethic,” Aldo Leopold noted that over “the three thousand years” of recorded Western history (going back to Homer’s *Iliad* and *Odyssey*), “ethical criteria have been extended to many fields of conduct.” He goes on, “This extension of ethics, *so far studied only by philosophers*, is actually a process in ecological evolution. Its sequences may be described in biological as well as philosophical terms” (emphasis added).¹

Going back to Darwin himself—who devoted two entire chapters of the second edition of *The Descent of Man* to “the moral sense”—there has been a biological account of ethics running in a parallel universe of discourse to the philosophical account. Biologically, ethics are characterized by “a limitation on freedom of action in the struggle for existence,” as Leopold put it. But how can voluntary, self-imposed limitations on freedom of action in the competitive struggle for existence have possibly evolved through descent with modification and natural selection? It seems that the more coldly selfish and ruthless individuals would outcompete the selfless and the guileless. Answer: when the struggle for existence proves to be more efficient and successful when pursued collectively and cooperatively than singly and individually. “No tribe,” Darwin notes, “could hold together if murder, robbery, treachery, etc. were common—hence such crimes are ‘branded with everlasting infamy.’” And if the tribe cannot hold together, its erstwhile members will find themselves starving to death or falling victim to a predator. Ethics are necessary for social cohesion, and membership in a cohesive society is necessary for individual

survival in the struggle for existence and, just as important, reproductive success. Thus a proclivity to ethical behavior was naturally selected, motivated by what David Hume, a century earlier, had called the “moral sentiments”—love, sympathy, care, beneficence, generosity, sense of fairness, responsibility, loyalty, and many others. These moral sentiments, Darwin argued, were universal in the species *Homo sapiens*, a quintessentially social animal.

Darwin, however, employed the concept of group selection in his account of ethics: those groups that were more cohesive and cooperative outcompeted those that were less so, thus exerting evolutionary pressure toward enhancing, refining, intensifying, and extending the moral sentiments felt by individual group members. After the so-called modern synthesis of Darwinian evolutionary theory and Mendelian genetics in the 1930s, group selection became anathema in evolutionary biology. The level of selection was downscaled from the individual phenotype to the genotype. How could evolutionary biologists account for the existence of “altruism” (the subordination of self-interest to the interests of others)—the observable surrogate for ethics—when it all comes down to the “selfish gene?” There were two answers: kin selection and reciprocal altruism, consolidated in Edward O. Wilson’s controversial tome *Sociobiology: The New Synthesis*. Sons, daughters, brothers, sisters, and cousins share fractions (a half, a fourth) of each other’s genes, so those crafty genes make us love, care, and sacrifice for our close kin, thus serving the genes’ own selfish end (maximum representation in future generations). And they also make us serve the interests of non-kin acquaintances in the expectation that those folks will later reciprocate and serve our interests and thus the interests of our selfish genes.

Sociobiology became so toxic that those who have latterly taken up and advanced the biological account of ethics quietly changed the name of the field to “evolutionary moral psychology.” And group selection has now made a comeback under the rubric of “multilevel selection”—because kin selection and reciprocal altruism working in tandem failed to explain all the moral facts.

Now, here is my comment on universal ethics. The moral sentiments are universal in the human species, as Darwin surmised (and as did Hume before him), but they are underdetermined. Toward whom one should feel sympathy, to which group one should feel loyal, who counts when one’s sense of fairness comes into play—such matters are determined by culture. It’s not nature or nurture; it’s nature and nurture. Similarly, it’s not affect (the moral emotions) or reason (cognition);

it's affect and reason. And while human nature at the genetic level changes on a Darwinian evolutionary time scale, human culture changes on a Lamarckian evolutionary time scale (which is ever accelerating) at the memetic level. We may not be able to change hearts, but we can change minds. Racists are not mean-spirited; they are narrow-minded. We combat racism, sexism, nationalism, religionism, and other divisive "isms" precisely by disclosing the universal humanity that we—genetically a single species—all share. It is true that no tribe can hold together if murder, robbery, treachery, etc., are common. But there is just one tribe we all now belong to as the world is tied together by a global economy and global transportation and communications networks. Yet there is still room for non-divisive cultural diversity in language, food, art, music, architecture, fashion, sexuality, and other exuberant expressions of human creativity. Ethical universality is not cultural uniformity.

At long last, a few mainstream moral philosophers have picked up on the biological account of ethics—and dismissed it out of hand. Why? Because it is descriptive, not prescriptive. Granted, we are genetically programmed to lavish love, care, and sacrifice on our close kin and not strangers. But is that really right? Is that what we really ought to do? Further, the biological account of ethics carries no moral bite, no normative force. Intramurally dominating mainstream moral philosophy have been two competing paradigms—utilitarianism and deontology—which are, despite their very real differences, united on one fundamental point: to be moral, an action must be rational. It must not violate the most fundamental rule of reason: self-consistency, or non-contradiction. According to deontology, we put an action to this test question (which we've all heard from our mothers): What if everyone acted that way? What if everyone always stole the property of others? There would be no property to steal as everything would belong to everyone and thus no one. What if everyone always broke their promises? There would be no promises to break because no one would believe a promise, and because no one would believe a promise, no one would make a promise. Promise-making would cease to exist or never have come into existence in the first place. According to utilitarianism, it is contradictory to treat equal interests unequally. Where is the normative force, withal? We act immorally on pain of self-contradiction; we behave irrationally. This rational reduction of ethics, detached from feelings of love, care, sympathy, loyalty, and the other moral sentiments,

may be convincing to philosophers, but it does not align well with our actual moral experience—not even the moral experience of most mainstream moral philosophers themselves.

In the biological account of ethics, moral norms are more like medical norms. A temperature of 98.6 degrees F is normal, and it is also good. When it falls significantly above or below that norm, a person is sick (in a bad condition) and in need of medical intervention. Physical abnormalities and disabilities are not morally censurable, but some psychological abnormalities and disabilities are—for example, a lack of empathy. Due to genetic defect or trauma, psychopaths and sociopaths lack some or all of the moral sentiments; and they are in need psychological intervention. And if that is not successful, then isolation from society (the modern equivalent of banishment from the group) is the only recourse. Racists, sexists, nationalists, and religious fanatics may not be wanting in the moral sentiments, but they are in need of cognitive updating, so that their moral sentiments are stimulated and directed in ways that correspond to the socio-environmental situation as it has now come to be: one global society, one global atmosphere, one global ocean—in short, one world.²

Endnotes

1. Aldo Leopold, "The Conservation Ethic," *Journal of Forestry* 31, no. 6 (October 1933): 634.
2. For a full discussion of these and related matters, see J. Baird Callicott, *Thinking Like a Planet: The Land Ethic and the Earth Ethic* (New York: Oxford University Press, 2014).

About the Author



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