

The Ethical Implications of Evolutionary Theory

ABSTRACT: This essay is primarily concerned with important arguments involved in the debate about the relationship between evolution and morality. Though the paper holds that it is plausible that certain natural traits would have evolved into human moral sentiments, it argues that evolutionary theory cannot tell us how to be good people or why moral sentiments ought to take priority over immoral sentiments. Evolutionary theory is in this way an incomplete moral theory, analyzing how humans and human morality evolved through natural selection can uncover implications of evolutionary theory, which have a strong impact on a theory of morality.



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For decades, the issue of evolution's impact on ethical theories had been understandably shelved because the arguments had become deadlocked and other, more pressing issues emerged. However, now with major advances in biology, especially sociobiology and evolutionary biology, it has been brought back out and examined with renewed vigor. Also, because Darwin's theory makes up such a large part of the way most of us view our species and the world, evolution and ethics surely deserves a second go around. To introduce the basics of evolutionary moral

theory, we read from William F. Quillian, Jr., this:

The contention of Evolutionary Naturalism is that by the application of the theory of evolution to the investigation of moral phenomena Ethics can be placed for the first time upon a scientific basis. It is supposed that moral sentiments, customs and judgments have been gradually developed over a long period of time by that same process of natural selection which has determined the development of the present structure of animals, including man, from some earlier form.¹

1. William F. Quillian Jr., *The Moral Theory of Evolutionary Naturalism* (New Haven: Yale University Press, 1945): 27.



This statement generally describes the central theme of evolutionary ethics from Darwin through the present. Richard D. Alexander, a more recent evolutionary naturalist, has written that “it is necessary to understand the life interests – therefore the life patterns – of humans as outcomes of an evolution guided principally by natural selection,”² and that by “understanding the evolutionary significance of the human organism, and the nature of individuality of its evolved interests, we may derive useful insights into human concerns about morality.”³ What follows now is an attempt to identify some of these insights, and I will put forth three specific ones – the need for adaptability, the importance of natural motives, and the body as a compass. Before that, however, there will be an exposition of what is involved in evolutionary ethics, the traditional debate around it, and my perceived limitations of the position. First it is important to make clear that evolutionary ethicists do not attempt to reduce human nature to biology alone. In an essay on the subject, Matthew H. Nitecki does not cite, but he mentions C. G. Hempel’s assertion from *Philosophy of Natural Science* that biology is not easily reducible to chemistry and physics. He says, “[f]or example, you may resolve penicillin to a chemical equation, but not as a substance produced by a living fungus *Penicillium notatum*.” Nitecki argues that it is even more difficult to reduce morality to biology. Morality never involves the same circumstances, so its components are things such as intentions, beliefs, and wants

which biology cannot describe at the moment.⁴ This is why evolutionary ethics does not attempt to reduce morality simply to genes.

Genes do not independently cause us to be moral. We are not, for instance, genetically coded to refrain from lying. Environment is also as much of a force upon our behavior as our genetic makeup. Alexander explains the way in which forms and functions can be effectively derived from genes:

No trait of an organism is maximized in its own particular function because all traits are part of a compromise in which the singular function of inclusive fitness maximizing remains as the perpetual combined effect of natural selection on the organism. Evolutionary compromises within the evolving organism as a result of conflicts among the “idealizing” of different functions are parliaments not so much in the sense of conflicting interests as in the sense of coordinations of extremely complex programs of effort (and possibly of differences in information among agreeing parties – or parts).⁵

The genes themselves are not in a vacuum within us. They must compromise and are never independent.

The mechanisms for behavior are of these kinds of derived functions. Alexander further points out that “mechanisms evolve which tend to yield particular behaviors in particular environments.” Genes encode traits, traits produce mechanisms by “cooperative

competition,” and mechanisms tend to cause certain behaviors in certain conditions. There are so many internal and external factors playing into our behavior that the whole system is incredibly complex and still quite a mystery. It also implies that any one function from a set of traits is still under the control of the organism as a whole, so free will is not necessarily lost.⁶ Gene reduction and determinism for moral behavior and behavior, in general, are not compatible with this description of the evolution of behavioral mechanisms.

There are many objections, however, to evolution’s relevance to ethics. Those objections begin with Thomas H. Huxley during his famous *Romanes Lecture* in 1893, and most criticisms since then have stemmed from Huxley’s arguments. Simply stated, it is that the “cosmic process,” as he calls natural selection on a grand scale, the process by which nature develops and undergoes substantial changes, is one of constant struggle and battling, and in contrast, the way of humans is of tolerance and comfort.⁷ For Huxley, human society, made possible by morality, is a matter of artifice – not nature. He tells a story about a gardener as a striking metaphor for this. The gardener must constantly battle nature to continue cultivating his vegetables or flowers, which represents those things which are good for him and those around him, uprooting weeds that would normally be there, keeping away crows, and the like. He hoes, fertilizes, builds a fence, and can never let up or else his garden will become overgrown by the types of things that were there before. What Huxley means by all of this is that human morality stands in

complete opposition to the rest of nature, and he thinks, therefore, that we cannot improve it from knowing the evolutionary process, which is inherently amoral or even immoral.

John Dewey’s essay, “Evolution and Ethics,” is largely a response to this lecture by Huxley. Dewey’s underlying idea is that human morality does not contradict nature, or even another part of nature, but that it expands the possibilities of nature. For Dewey, nothing ever battles nature, but, instead, nature sculpts and fiddles with itself, even sometimes by means of human artistic endeavor. Nature is all-encompassing. He takes issue with Huxley’s interpretation of the garden and the gardener. To Dewey, the gardener is actually a component of nature, a natural entity, modifying other components in a certain way that results in what we call a garden. The gardener may have planted seeds that would not normally have been in that spot, but those seeds came from another place in nature. He says that the gardener will modify the amounts of sun and water that reach the area, but that these things still “fall within the wont and use of nature as a whole.” Dewey admits that, yes, the gardener must keep up with the forces trying to break down his or her work. It is a struggle. The gardener’s struggle, though, is not with the whole cosmos, but with his current conditions. This is where Huxley really misapplies the analogy. The ability to grow plants truly is an adaptation to conditions. To maintain the metaphor, then, is to say that morality is an adaptation to conditions. If growing a garden conflicts with nature then I would not know how to argue that bees are not also battling nature. They build a hive for

2. Richard D. Alexander, “Biological Considerations in the Analysis of Morality,” in *Evolutionary Ethics*, ed. Matthew H. & Doris V. Nitecki (Albany: State University of New York Press, 1993): 178.

3. Alexander, “Biological Considerations”: 181.

4. Matthew H. Nitecki, “Problematic Worldviews of *Evolutionary Ethics*,” in *Evolutionary Ethics*, ed. Matthew H. & Doris V. Nitecki (Albany: State University of New York Press, 1993): 22-23.

5. Alexander, “Biological Considerations”: 170.

6. Alexander, “Biological Considerations”: 170.

7. Thomas H. Huxley, “Evolution and Ethics,” in *Evolutionary Ethics*, ed. Matthew H. & Doris V. Nitecki (Albany: State University of New York Press, 1993): 66.



insulation, protection, and convenience, and they run a honey factory inside it. Dewey says that humans do not contend against the whole of nature but that they “[read] the possibilities of a part through its place in the whole.” He goes on to say that “[h]uman intelligence and effort intervene, not as opposing forces but as making this connection [between a part and the whole].”⁸

A part of Huxley’s arguments survives, though. This can be found in his statement that “evolution may teach us how the good and the evil tendencies of man may have come about; but, in itself, it is incompetent to furnish any better reason why what we call good is preferable to what we call evil than we had before.”⁹ I think that Huxley is mistaken in completely dismissing any connection between moral inquiry and evolution, but I think that he rightly recognizes that evolutionary theory is incapable of providing the basis for a general theory of morality.

Larry Arnhart’s evolutionary account of morality in *Darwinian Natural Right* makes clear that while “the evolutionary process does not serve goals, the organisms emerging from that process do. Darwin’s biology does not deny – rather, it reaffirms – the immanent teleology displayed in the striving of each living being to fulfill its specific ends (Lennox 1992, 1993).” However, while it may affirm the teleology, it does not tell what the teleological end is. Arnhart uses Aristotelian eudaimonia to fill in the space, but that description of human ends cannot be derived from evolutionary theory.¹⁰

Natural selection might tell us that such a teleology is useful for our species’ survival under the circumstances in which it came about, but it does not tell us what it actually is. I think Alexander comes closest to filling the hole with contract theory involving the desire for good reputation, which better enables humans to achieve other ends. This is considered indirect reciprocity because the subject gains long term benefits from his or her good deeds, but these actions would not necessarily give any immediate and direct reward. Good reputation requires consistently doing good things, which requires acting without hesitation within certain conventions agreed upon by the members of society. It then becomes a habit, and that explains why we do what is “right” even when no one is looking.¹¹

There are significant problems with such a contract theory. It neglects the extremely important role that sympathy plays in our moral lives and how it can be the primary motivating factor. Also, it seems to imply that if we were to admire someone who is martyred for the good or the right then we do so under false pretenses. Sometimes doing the right thing damages our reputation and situation for reciprocity. George Herbert Mead stated in a lecture that a man sometimes “has to fly in the face of the whole community in preserving [his] self-respect,” although “he does it from the point of view of what he considers a higher and better society than that which exists.”¹² If this is true, then it

seems highly improbable to explain community concern with only direct and indirect forms of reciprocity as conceived purely on the basis of evolutionary theory.

Evolutionary theory can tell us that all humans are moral creatures, but it cannot tell us why we ought to do anything we say that we ought to do. It may demonstrate that we will surely be altruistic *sometimes*. It tells us that if we are not ever altruistic then cooperation breaks down and our chances of getting what we want and even living a long time greatly decrease. However, reading *The Origin of Species* cannot help someone decide whether or not to be honest when the truth would hurt someone’s feelings. Evolutionary theory cannot tell someone how to be a “just person,” how to reach eudaimonia, or how to be an “over man.” No great prophet of history could have learned how to liberate or bring justice from it.

However, even though we cannot derive a moral theory from evolutionary theory, that does not mean we cannot learn anything at all about morality from evolution. As mentioned earlier, ethics has not been the same since Darwin. To begin to talk about useful connections between evolution and ethics, I turn to Michael Ruse’s essay, “The New Evolutionary Ethics.” In this excerpt, Ruse gives the starting point for exploring ethical implications of evolution:

[D]espite an evolutionary process, centering on a struggle for existence, organisms are not necessarily perpetually at conflict with weapons of attack and defence. In particular, cooperation can be a good biological strategy. We know also that humans are organisms

which have preeminently taken this route of cooperation and working together. Further, there is good reason to think that a major way in which humans cooperate together is by having an ethical sense. Humans believe that they *should* work together, and so – with obvious qualifications – they do so.¹³

Keeping this beginning in mind, the next task is to explore the implications it has upon our ethical lives. There may be more, but in this essay I will examine three. The first is that the process of natural selection shows us the importance of change. Natural selection demonstrates that if anything is to survive, then it must be adapted to present conditions. The traits of complex organisms that allow the organism, itself, to adapt to changes in the environment within its own lifetime are precious for survival and reproduction. This ability for a single organism to adapt within its lifetime to constantly changing circumstances matters for the entire species. This is important for ethics because if our traditions, institutions, and even our having an outlook on life are to survive then they must also adapt. Otherwise the natural selection will end their continuation into further generations. Sometimes conditions do mean the end for an institution, but it is usually more beneficial for an institution or tradition to adapt so that society might retain its essential wisdom than for that institution to simply die and that benefit become lost for a time. Since adaptation depends on constantly changing circumstances, when we consciously do this with ourselves and with our societies’ components we can only evaluate how to adapt by, as Dewey says, “empirical determination,

8. Dewey, John, “Evolution and Ethics,” in *Evolutionary Ethics*, ed. Matthew H. & Doris V. Nitecki (Albany: State University of New York Press, 1993): 98.

9. Huxley, “Evolution and Ethics”: 66.

10. Larry Arnhart, *Darwinian Natural Right: The Biological Ethics of Human Nature*, (Albany: State University of New York Press, 1998): 245.

11. Alexander, “Biological Considerations”: 184.

12. George Herbert Mead, *Mind, Self, and Society*, (Chicago: The University of Chicago Press, 1934): 389.

13. Michael Ruse, “The New Evolutionary Ethics,” in *Evolutionary Ethics*, ed. Matthew H. & Doris V. Nitecki (Albany: State University of New York Press, 1993): 152.



not...a priori theorizing," which rules out some unwavering, blind idealism.¹⁴

Evolutionary theory's second contribution to ethics is demonstrating the import of our natural motives. Evolutionary theory tells us that we have natural motives, and we are adapted so that it is good for us to follow them. These natural motives are things such as desires, but they are more than that. They are anything that comes to us by our human nature and that provokes us to act. Hunger, sympathy, empathy, narcissism, sexual desire, and fairness are a few examples. Evolutionary theory's problem is that it cannot tell us which ones to follow when they conflict. One might say that the guidance of reason is the answer, but reason, alone, cannot tell us which motive(s) are best and bare reason is not a motive. However, we also cannot justify the unnecessary denial of any of our motives, and not just our social, ethical motives, either. There have been many traditions and institutions throughout history that have uselessly tried to prevent people from following their natural motives, and some still do today. While I believe customs and traditions come about as an expression of natural motives at work in an environment, as knowledge and conditions progress, customs and traditions should change and possibly be abolished to better suit our natural motives. What this provides is a position from which it is possible to criticize abhorrent customs, institutions, and moral standards of another culture.

Take, for example, how Arnhart works through the case of female circumcision. He says that we must consider both the conditions that caused the practice to come about and also

the "natural constitution of desires and powers [of humans]... that might be either expressed or frustrated by such a custom". Arnhart says that the only way to prudently reform practices like this is to understand the social conditions that could cause such a practice to make sense. The societies in which female circumcision has been adopted are ones with high social stratification, and in those societies, there is usually a limited number of men who control the most resources. Hence, women are forced into a position of competition for high status males, and this often includes showing signs of fidelity, such as female circumcision. Arnhart suggests that males in the society accept the practice because they naturally want assurance that the children in their family are in fact their offspring, assurance given when they are confident of their wives' fidelity.¹⁵ Reform to eliminate female circumcision and other customs that seem morally abominable to us must be done through changes in social circumstances. First the economic welfare of the entire society, and particularly the economic opportunities for women, must improve so that women and their offspring must not rely exclusively upon the man she marries and his control over resources. Second, education is imperative. Inaccurate beliefs about women and female circumcision must be done away with if the practice is to be abolished. In general, the practice should be abolished, and abolished in this or a similar way, because there exists the very real possibility to better fulfill the motives that female circumcision is supposed to serve, such as the parenting desires of both women and men, without also denying other motives, such

as women's health and sexual well-being. This case examination has shown that evolutionary theory implies that we reject cultural relativism, and that there are real grounds for criticizing the moral standards of other societies.

The third point to make is that even though evolutionary naturalism cannot tell us exactly how to be morally virtuous, it can tell us where to look. Evolutionary theory tells us that we have a constitution and an environment, and that everything we have to use is from our constitution constantly fed by the environment. Luckily, we still live in the same basic environment for which our constitution is adapted; if the Earth's biosphere is ruined then our genome's chances of reproduction become much slimmer. So where do we look to be a good human? We look to what Nietzsche means by "the Self" – "[i]t rules and is also the Ego's ruler." He goes on to say that there "is more reason in your body than in your best wisdom" and asks "who knows for what purpose your body requires precisely your best wisdom."¹⁶ Our moral compass is our Selves! In that case, Nietzsche's point of asking for what purpose your body requires precisely your best wisdom is not unlike the way Dewey rejects moral principles as universal imperatives while he accepts them as useful tools in situations of moral deliberation. Personal aims and goods depend on context, and no universal mandate can fit every situation. Someone might say that your aims, or belief about what you *ought to do*, should be so and so, and that this ideal would be your compass. Instead, I would say that we

ought to, because to do otherwise would be to contradict some part of my self, remembering Plato, who said through Socrates that "we must also remember that each one of us will be just, and perform his own proper task, when each of the elements within him is performing its proper task."¹⁷

Nietzsche asks in *The Gay Science* "What does your conscience say?" and then answers with "'You shall become the person you are.'"¹⁸ He is again, referring to the idea that our virtue and what is good is built into who we are right now. I would even admit this for a serial murdering and raping psychopath. Even this person on the low fringes of morality should become the person they are, keeping in mind that psychopaths are people who appear to be born without any moral capacity. However, to be the person that I am, I am obligated to support locking up the violent psychopath to protect children, innocent people, myself, and society. What we can say now is simply that we are moral and that to be moral definitely means *something*. While that may not tell us much, it does tell us that there are things it is not. There are infinite moral possibilities because we are free beings, but they are infinite within a limited set.

In conclusion, through a look at both sides of the evolutionary ethics debate we have found that Darwin's theory is helpful in at least three ways, but also that it is limited in its ability to produce a moral theory. Also, we see that the three contributions, the necessity of adaptability, the place of natural motives, and the body's sagacity may have more than minor

14. John Dewey, "Human Nature," in *The Later Works: Volume 6*, ed. Jo Ann Boydston, Sidney Ratner, and Anne Sharpe (Carbondale: Southern-Illinois University Press, 1985): 38.

15. Arnhart, *Darwinian Natural Right*: 153-156.

16. Friedrich Nietzsche, *Thus Spoke Zarathustra*, in *The Nietzsche Reader*, ed. R. J. Hollingdale, (Oxford: Blackwell, 2008): 265.

17. Plato, *The Republic*, ed. G. R. F. Ferrari, tr. Tom Griffith (Cambridge: Cambridge University Press, 2000): 441 e.

18. Friedrich Nietzsche, *The Gay Science*, in *The Nietzsche Reader*, ed. R. J. Hollingdale (Oxford: Blackwell, 2008): 226.



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consequences for our moral outlooks. Still, can we elevate moral good above moral evil? Do I have reason to know why I think of a good person as the morally good one rather than an athletically or an intellectually profound person? It may be that morality has become the highest virtue for humans because it improves sociability and cooperation, and those are the best aides for survival we have as a species. Maybe I admire the great altruism of martyred saints because they are the best at what helps us humans the most. It may be a result of lingering institutional and customary lessons that were necessary for a certain level of cultural development to occur. It might just be the social convention of our time. I can say, though, with confidence that the belief that a good human is a socially virtuous, loving

person runs as deep as marrow within me. I should not try to contort myself into something that cramps or batters any part of my nature, my wants, my motives, my rationality, or anything else that constitutes what I am unless it is for the sake of the whole of me, only in rationing part of my self for the sake of my overall self. We should drop any moral theory or practice that is contrary. Although there is no evidence that there exists a single trait shared by all humans, unless by sheer coincidence, each of us shares at least something with all other humans. Knowing this, it is possible for all humans to become who we are and relate, cooperate, and enjoy it, but to progress at all we must continue to look within, and to be honest with ourselves. ♦