

WHAT DOES EVOLUTIONARY BIOLOGY TELL US ABOUT PHILOSOPHY AND RELIGION?

by *Michael Bradie*

Abstract. Considerations from evolutionary biology lead Michael Ruse, among others, to a naturalistic turn in philosophy. I assess some of the pragmatic and skeptical conclusions concerning ethics, religion, and epistemology that Ruse draws from his evolutionary naturalism. Finally, I argue that there is an essential tension between science and religion which forecloses the possibility of an ultimate reconciliation between the two as they are now understood.

Keywords: epistemology; ethical skepticism; evolutionary ethics; fallibilism; naturalism; religion.

Michael Ruse is one of the preeminent architects of recent developments in the philosophy of biology. With his glib, highly readable style and his penchant for defending what often appear to his academic peers to be outrageous positions, he cuts through the cobwebs of ordinary academic discourse and communicates the excitement of the implications of evolutionary biology for understanding the human condition. Much of Ruse's career has been spent defending unpopular causes. From the beginning, in the early 1970s, when most philosophers of science were addressing methodological questions or issues in the philosophy of physics, Ruse, along with David Hull, helped shape the development of contemporary philosophy of biology into the academic growth industry it has become today. When legions arose against the upstart views of sociobiologists, Ruse went to their defense, and although his views have been tempered somewhat throughout the intervening years, he remains a supporter. Although he was a star witness against creationism in the Arkansas court case, he has said some nice things about creationists, at least as persons. As he points out, he was

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addressing sociobiological issues surrounding homosexuality when many other philosophers were (and for the most part, remain) silent. He has defended the nonsexist nature of science against feminist attacks. His views on the relevance of biology to philosophy have shifted from an early conservative stance (to the effect that evolutionary biology had no particularly interesting implications for philosophical discussions of ethics and epistemology) to the view that they have, indeed, implications of great moment, although he remains somewhat more skeptical of the value of such incursions than some enthusiasts.

In what follows, I will assess some of Ruse's central claims about the importance of biology for science and religion as outlined in the papers here printed. Finally, I shall address the key question of the reconcilability of science and religion.

EVOLUTIONARY IMPLICATIONS FOR EPISTEMOLOGY, ETHICS, AND RELIGION

What are the philosophical implications of evolutionary theory? Do any scientific theories have any bearing on philosophical and religious questions? Many traditional philosophers have answered no. Naturalists and pragmatists stand on one side of this divide; the traditionalists stand on the other. John Dewey, writing fifty years after the publication of Darwin's *Origin of Species*, saw that work as one of those seminal tracts that dissolves the inherited problems of earlier intellectual traditions and precipitates "new methods, new intentions, [and] new problems" (Dewey [1910] 1951). Ruse is in this philosophical tradition, and so am I. Taking Darwin seriously has implications for philosophy. In Ruse's view, Darwinism in ethics leads to a skepticism with respect to objective value but not to a rampant relativism (Ruse 1994a, 29). In epistemology, it leads to pragmatism. Ruse characterizes his own position as Hume brought up to date by Darwin. While I am in general agreement with Ruse's naturalism, I am more sympathetic with some of the conclusions he draws from evolutionary considerations than with others.

In ethics we may distinguish between metaethics, which deals with the nature of moral truths, and ethics proper, which deals with what those truths may be. On Ruse's view, the relevance of biology to ethics is different at these two levels. In metaethics, Ruse is a subjectivist with respect to ethical values. That is, he argues against the existence of objective values and moral realism. This is a contentious and controversial issue in contemporary ethics, and there is no clear consensus about what *objective* and *real* mean in this context.

However, I take the subjectivist position to be, minimally, the view that values are constructions by moral agents and are not reflections of eternal or “external” truths. There is a more or less straightforward biological argument in support of this view and an equally important, indirect methodological argument in its favor as well. The direct biological argument rests on the assumption that morality is an evolved capacity, an enabling mechanism, that contributes to the reproductive success of moral agents (cf. Wilson 1978 and Alexander 1987). If this is true, then we should expect that the value systems that organisms create for themselves will be, in part at least, a reflection of the kinds of organisms that they are. Creatures with different evolutionary histories and different evolved characteristics will have different values to the extent that they have any values at all. Thus, judgments of right and wrong will be contingent upon the evolutionary history of those who make the judgments. This, in itself, does not prove that the universe does not have an intrinsic moral order. For someone could argue that our moral capacities have evolved in such a way so as to enable us to “see” the moral order of the universe and judge accordingly. The methodological argument is designed to block this move.

The methodological argument is the so-called redundancy argument against objective values. The idea is that “objective” values are redundant in that, even if there were such values they would not play a significant role in the determination of our moral behavior or the construction of our moral systems (Ruse 1994b, 20). Why not? Well, because we can give an account, *in principle*, of the development of our moral systems purely in terms of biological evolution and sociocultural interactions. I say “in principle” because although no one has actually produced such an account, the broad outlines of how it might go have been bandied about in the recent sociobiological literature. The point is not that such an account exists, but what the implications of such an account would be. The implication that Ruse draws is that it would render the appeal to objective values irrelevant for understanding the development of human morality. This line of reasoning has clear affinities with the “God-of-the-gaps” arguments that appeared in the aftermath of Newtonian mechanics. The question that naturally arose with the development of Newtonian mechanics was what God’s role was to be in a clockwork universe. Newton himself, of course, invoked God in several places in his system; notably, to counteract universal gravitational collapse and to readjust the orbits of the planets in the solar system to preserve the stability of that system. God’s efficacy, at least with respect to the mechanics of the universe, was reduced

to that of plugging up the gaps in a powerful mechanical theory. The net effect was to marginalize God's mechanical role in the universe. When Laplace, in his *Celestial Mechanics*, showed that the problem of planetary perturbation did not lead to instability, God played no role whatsoever. Napoleon reportedly inquired about the place of God in Laplace's system. Laplace allegedly replied that he had no need for that hypothesis. So it is with the redundancy argument. If we can account for human morality purely in terms of evolutionary biology and sociocultural interaction, then we have no need to appeal to the existence of objective values in the universe in order to explain our moral judgments or moral codes. My naturalistic inclinations are with Ruse on this point.

What about ethics proper? Here the situation is somewhat more problematic. First, Ruse argues that metaethical subjectivism does not lead to rampant relativism. It is easy to see why not. All human beings share an evolutionary history that makes their fundamental moral natures the same. There is, as it were, a "deep ethical grammar" which all human beings share. Differences in local ethical systems are not a reflection of fundamental disagreements over moral issues, but merely reflections of different environmental influences which give rise to different moral "phenotypes." Such relativism as does exist will be interspecific (rather than intraspecific). This, indeed, is one of the major points of Ruse's paper "Is Rape Wrong on Andromeda?" In addition, Ruse, following E. O. Wilson, seeks to explain the evolution of particular moral principles by appeals to "epigenetic rules." These rules are the biochemical pathways by means of which genes, along with environmental factors, shape the development of phenotypic traits in individuals. Given that moral principles are traits, there should be epigenetic rules governing their expression. Again, this is an "in principle" claim since the biochemical pathways from genes to traits are unbelievably complex and ill-understood even for most complex physical characteristics, let alone social or cultural ones. Indeed, given the complexities of the pathways and the interactions between the biological, social, and cultural spheres, plus the legal, moral, and social constraints on performing the requisite experiments (not to mention the technical difficulties involved), this claim may well remain forever only "in principle."

Here I think it would be well for us to distinguish between the evolution of a moral capacity as such, that is, the evolution of an ability to formulate and be moved by moral considerations, on the one hand, and the evolution of the acceptance of particular moral principles, on the other. Two claims need to be distinguished.

The first is the claim that biological considerations are a major factor in the evolution of our moral capacities. The second is the claim that biological considerations are a major factor in determining our acceptance or rejection of specific moral principles. I am much more comfortable with the former claim than I am with the latter. The details of the evolution of our capacity to be moral are empirical questions. In principle, testable hypotheses concerning them can be formulated. As with all phylogenetic hypotheses, actually putting them to the test is an altogether different matter. Nevertheless, we can be fairly confident that some evolutionary scenario concerning the origin and development of our moral “natures” is correct.

Be that as it may, insofar as moral values are a product of “epigenetic rules,” these rules give rise to values that conflict with traditional Christian morality. Nowhere is this more apparent than in the conflicting interpretations of homosexuality and the “love commandment” which we get from sociobiology and Christianity. In particular, the “strong interpretation” of the “love commandment” requires that we love everyone equally and impartially. Sociobiological considerations, drawn from kin selection and reciprocal altruism arguments, suggest this is “unnatural.” Homosexuality, on the other hand, is a prevalent condition in many biological populations and is a “natural” if not dominant variation. The doctrine of the Roman Catholic Church is the opposite. Which view is right? It is in contexts such as these that the appeal to the metaphorical character of human knowledge and value systems is likely to muddy the waters. Having abandoned the God’s-eye view that there is a unique correct description of the universe, its contents, and their natures, one cannot simply argue that one approach is correct and the other wrong. One has to take a stance. Naturalism is one such stance; Christianity is another. Questions about human nature are not simply empirical questions but involve value and metaphorical framework assumptions as well. (For a further discussion of some of these issues see Bradie, *in press*.)

The third major thrust of Ruse’s position is his attitude towards “Hume’s problem” or the gap between “ought” and “is.” Even if we could give an evolutionary explanation of why human beings hold the moral views that they do, this would not yield a justification for holding them. Ruse agrees. Giving an evolutionary explanation of Mill’s “Greatest Happiness Principle” does not justify that principle. But, he adds, this is not a defect. Having taken the naturalistic turn, he claims that the demand for justifications is just a relic of a bygone philosophical tradition that we are no longer constrained to satisfy.

(For an alternative vision which seeks to provide both an evolutionary explanation and justification, see Richards 1987.)

A similar set of considerations applies for issues in epistemology and presumably religion as well. The capacity to know and to be able to construct complex and elaborate theories and to formulate and be guided by epistemological principles is undoubtedly an evolved capacity. It is a separate and more controversial question as to whether appeals to evolutionary considerations can account for the evolution and deployment of specific methodological principles and substantive scientific theories (see Bradie 1986 for further discussion of these issues with respect to epistemology).

What about religion? Given everything we know about earthly biological organisms, the capacity to be religious seems restricted to human beings alone or, at best perhaps, the higher mammals. There are no religious wasps, clams, or ivy—as far as we know. Any evolutionary story we told would place the development of a capacity for the religious sometime between the origin of life on earth and the present.¹ What exactly the neurobiological basis of that capacity is, we do not know, but presumably it is connected to the development of “higher” mental powers. This scenario turns the capacity to be religious into a character trait like any other. It is a nice and controversial point whether or not all such capacities have evolved, and been maintained once they appear, for their functional utility. We do not know whether it is an adaptation or not—the better to understand the workings of God the Creator, for example. For all we know, it is an aftereffect of the development of mental powers—a characteristic that survives because it does no evolutionary damage. A third possibility is that although it is an aftereffect of other evolutionary processes, it serves some useful function. The development of the capacity for “higher” thinking has created for us who possess it the vision of a universe so mysterious and awe inspiring that our very ability to survive may well hinge on our ability to seek and find solace in the kind of comfort that religion affords in a universe in which we seem more often to be pawn rather than master.

This speaks only to the development of the capacity for religion and says nothing about the “evolution” of religious doctrines. Those who have studied such matters often derive some special significance from the development of religious beliefs from animism to polytheism to monotheism. This sequence has the appearance of convergence on some truth independent of the human condition. One cannot deny that possibility, although the evidence is inconclusive and the naturalistic point of view tells against such a conclusion.

In any case, there are a number of theological differences between various religious persuasions akin in some sense to the differences between various deontological or consequentialist sects in the realm of morals. One would be hard pressed to account for these differences on biological grounds alone. Here the naturalist is inclined to explain these differences by appealing to cultural and social factors; i.e., differences in local environments, rather than differences in fundamental biology.

THE RECONCILIATION OF SCIENCE AND RELIGION

What are the prospects for the reconciliation of science and religion? The metaphorical characters of each blur some of the differences between them (see, e.g., Peacocke 1984 and Soskice 1985). Yet there are essential tensions between them, and I share Ruse's skepticism about the possibility of any ultimate rapprochement between the two. First, there is an essential methodological or teleological tension. Although a strong argument can and has been made for the religious roots of modern science, and despite the fact that many, if not most, of the pioneers of the seventeenth-century scientific revolution were deeply religious men, there is a fundamental methodological schism between modern science and religion.

Modern science, in its embrace of fallibilism and its rejection of ultimate unquestionable foundations, is basically skeptical in its outlook. No matter how certain scientists may appear or claim to be at any given stage in their investigation of a problem, the dialectic of the scientific method is to accept solutions only as provisional. The religious attitude, on the other hand, is to search for final resolution. Since the methodology of modern science cannot provide ultimate resolutions, the religious seeker needs to abandon or transcend the scientific method. Whether the religious seeker finds an ultimately satisfactory final resolution is not the point—religious persons are as prone to doubts and misgivings as anyone. The point is that the goals are fundamentally different. So, even though many practicing scientists are true believers in some faith or other, they must, in effect, compartmentalize their spirits. Their religious convictions drive them to search for final and ultimate solutions; their scientific convictions drive them to temporary and fallible solutions.

Second, there is an essential moral tension between the two. Religious moral views tend to be absolutist and to promote the objectivity of values. From a strictly scientific point of view, which sees human beings as products of evolutionary history, the only reasonable position seems to be the contingency of good and evil

and of right and wrong. Were we different kinds of creatures with different evolutionary histories, our values would be different. This is the gist of Ruse's Andromeda argument. The agreement, such as it is, amongst religions which share broad general principles—e.g., variations on the Golden Rule is a reflection of a shared biological history and sociocultural influences.

CONCLUSION

When all is said and done, Ruse holds out some, albeit slim, hope for the eventual rapprochement between religion and science (Ruse 1994b, 23). For the reasons I have adduced earlier, I am even less sanguine about this prospect than Ruse. The reconciliation of religious faith as we know it and science as we know it would require a reconciliation of doctrine and principle. There is, no doubt, the prospect that doctrines may be reconciled both with respect to questions of fact and questions of value. But the spirit of the religious attitude is diametrically opposed, as I see it, to the spirit of the scientific attitude. The one seeks comfort, solace, and infallible certainty. The other seeks tentative solutions and revels in the fallibilistic products of human reason. We see reason divided against itself—the safety of faith struggling with the speculative uncertainty of science. We can find good evolutionary reasons to account for the development of both these tendencies in intelligent organisms, but an ultimate reconciliation between them, as they now stand, is not to be hoped for. Of course, it would be foolhardy to pronounce now what must or must not be the case a thousand or more years hence. Cultural institutions being what they are, it is quite possible that some “unification” of the two attitudes will be effected some time in the distant future. But, any such institution, however named, would be, I predict, as different from contemporary science and religion as modern science is from Aristotelian natural philosophy.

There is no doubt that religious sentiments are an integral part of the human condition. The world and human experience are too filled with despair, surprise, and anxiety for it to be otherwise. To search for solace in evolutionary theory is a counsel of despair if the point is to find the meaning of life in any traditional sense. The naturalistic moral of the biological turn in philosophy is that the call for justification is meaningless and should be abandoned. Perhaps the naturalistic moral for religion should be that the call for *meaning* is meaningless and should be abandoned as well. To the extent that Christianity or other religions argue for a special place for human beings, the lessons of evolution argue against it. *Homo sapiens* is

just one more species among others endowed with the ability to form conceits. Human beings have the fortune (or misfortune) to be able to speculate on matters which seem to be beyond their capacities to resolve. My scientific instincts (and, admittedly, nonreligious background) incline me toward the Darwinian picture of the human condition rather than the Christian. But the Darwinian message is not a comforting one for the vast majority of human beings, and I would not be surprised if it did not survive.

NOTE

1. If indeed it is indigenous. Hypotheses which have life on earth originating through seeding by spores from galactic or extragalactic sources (and possibly already prefigured with a capacity for the religious) only push the problem of origins back a few steps. Any Oparin-Darwinian-like hypothesis will postulate that origin to be from inanimate matter shaped by hereditary and environmental influences. And so the religious capacity will have evolved in any such extraterrestrial lineages as well.

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