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978-0-521-55923-2 - Biology and the Foundation of Ethics

Edited by Jane Maienschein and Michael Ruse

Excerpt

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Introduction

Jane Maienschein and Michael Ruse

It is at this point, I think, that we can best make the comparison between ethics and science, and the insurmountable barrier between them seems to me to lie in this fact, that in science we have such a source of conviction and in ethics we have not. Science rests ultimately on a basis of absolute certainty; ethics, so far at least, has not in general found any basis at all.

Thus asserted “Prof. H. Dingle” (Herbert Dingle) in an article in *Nature* in 1946, as quoted in “50 Years Ago” in 1996. He continued:

Science can therefore advance with confidence that although it may make mistakes they are not irreparable, and that even though its most trusted structures may come tumbling about its ears, it cannot finally collapse because underneath are the everlasting arms. They are two – reason and experience; on these twin supports science has an indestructible foundation. [Dingle 1996]

Although not everyone would endorse Professor Dingle’s confidence about the absoluteness of the certainty in science, few would disagree with the proposition that science and ethics rest on different bases. And many would agree that attempts to provide a compelling epistemic warrant for ethical theory have failed. Indeed, moral theorists have often been willing to give up the search and engage in descriptive and normative ethical discussions, leaving the metatheoretical search to others. Biologists and philosophers of biology have eagerly taken up the challenge. Thus an unabashed program for naturalizing ethics has gained enthusiastic supporters in recent decades. Sociobiology, evolutionary ethics, and genetic determinism have all played their parts.

This interest in bringing together biology and ethics, traditionally thought to inhabit C. P. Snow’s “two cultures” and to remain in separate domains pursued by separate lines of thought, is not new but has expanded considerably in recent decades. Until recently, philosophers had little interest in the life sciences, and moral philosophers even less.

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There are several reasons for the recent reevaluation. From the philosophical side, a major factor has been the general move to “naturalism,” meaning by this a drive to make philosophical thought more empirical, more in line with the methods and techniques of the physical sciences. This is something that has occurred particularly in the area of the theory of knowledge, epistemology, especially under the influence of major thinkers like the Harvard philosopher Willard van Orman Quine. In parallel with this has been a significant move to naturalism by philosophers of science, a move that was in major respects sparked by the stimulating influence of Thomas Kuhn’s *Structure of Scientific Revolutions*. There has been a shift from prescriptive idealizations about the way in which philosophers think that science should behave to more modest attempts at describing the actual workings of real science, past and present. The fact that so many of today’s philosophers of science devote their energies to the life sciences magnifies the significance of these changes.

Ethics and moral theorists have also been major causal factors in raising the new interest in morality and biology. In recent decades, thinking about morality has been drastically revamped. There was a time when the applications of ethics were not considered central issues within the domain of moral philosophers. There the concerns remained theoretical, primarily about foundations. Then a series of external factors began to contribute to changing all that: The war in Vietnam, the struggle of African Americans for equality, the rise of feminism, major advances in medical technology, and changing job markets that rewarded those who explored new niches all changed the consciousness of the community of moral philosophers. Specialists in moral theory became aware of the significance of the world beyond their own theoretical domain, and with that came the counterpart to epistemological naturalism, as more and more people speculated on the physical bases of moral thought and action. Noteworthy in this respect was Quine’s Harvard colleague John Rawls. In his magisterial *A Theory of Justice* he found opportunity (if only in a footnote) to speculate on the evolutionary origins of his basic claims about moral principles. Others have expanded from that footnote to place biological considerations at the center of moral theorizing.

Another major set of contributions promoting consideration of biology and ethics has come from historians of science. Although the history of science has had distinguished practitioners in the past, such as the nineteenth-century English polymath William Whewell, it is only in the past few decades that it has been fully professionalized, with training in historical methods. Now we have scholars who know how to read texts, who are aware of the importance of archival research, who can relate science to the more general and broader cultural contexts in which science is pursued. With this has come

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an interest in and willingness to examine the connections of science to such issues as moral behavior and the things that have been said, formally and informally, publicly or privately, deliberately or spontaneously, by practicing scientists on such subjects. Most particularly has come an interest in the many things that students of the life sciences have had to say about ethics, because much hinges on biological considerations of human nature. Philosophers, and especially moral philosophers, have until recently been reluctant to study science. Fortunately, that has begun to change.

There have also been scientific developments motivating a closer look at the connections between biology and society. It seems fair to say that the period since World War II really has been an era of biology. Studies in genetics and evolution have provided new data and new theories and have raised new questions relevant to discussions of human behavior, including ethics. Sociobiology has suggested that human behavior is controlled by genetic underpinnings and evolutionary adaptations. Some advocates, most prominently and most persistently represented by Harvard entomologist Edward O. Wilson (1978), have argued that biology now speaks directly to human nature, explaining and illuminating our most intimate and essential aspects:

The genes hold culture on a leash. The leash is very long, but inevitably values will be constrained in accordance with their effects on the human gene pool. The brain is a product of evolution. Human behavior – like the deepest capacities for emotional response which drive and guide it – is the circuitous technique by which human genetic material has been and will be kept intact. Morality has no other demonstrable ultimate function. [p. 167]

Genetic determinists also argue for the efficacy of inherited genes. This view has gained tremendous popular support, so that hardly a week goes by that does not bring news of some other “gene for” some other aspect of human behavior. Rarely do we hear of the limitations of genetic determinism or of the long leash to which Wilson referred. Undoubtedly, the enormous advances in biology and the enthusiastic popular interest have fueled attention from philosophers and moral theorists alike – whether or not any of these claims is valid. Scientists and philosophers have even begun to collaborate to explore the issues of common interest and the implications of the biological basis of human nature.

Going beyond the flush of enthusiasm for sociobiology and genetic determinism, scholars need to look carefully at the extent to which and the way in which biology really does inform ethics. And we can gain much by close scholarly attention to historical efforts to link biology and ethics, for, as the essays in this volume show, this effort is not new, even though we see the past efforts in new light.

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We have put together a volume that can be read profitably by someone who knows little or nothing about the subject, but it also can inform those trying to delve more deeply into the relationships between the life sciences and morality. Generally, it has not been our aim to look at the applications of biology in moral situations, such as the implications of the Human Genome Project. Nor do we consider ethical conduct of science. This is certainly not because we think that such issues are unimportant. Fortunately, these areas are being reasonably well served already. It is also not our intention to be comprehensive or to guide the discussion along particular tracks. We invited the contributors to provide essays that they felt would best address what they saw as the important issues in biology and society. We expected a rich range of offerings, and we are not disappointed.

Theodosius Dobzhansky said that nothing in biology makes sense except in the light of evolution. None of us involved in the project would want to deny that claim, but there is more to biology than evolution, and that is reflected in the contributions here. Though it is certainly the case that much of the literature on biology and ethics (and perhaps most of what has been written in the past century) has some sort of evolutionary flavor or perspective, that has not been our organizing theme. Evolution dominates some of the essays, but is notably absent or of less importance in others.

The proof of the pudding is in the eating, but we first provide an overview of what is on the menu. As so often is the case, we can trace the tradition of seeking ethical foundations to Aristotle. James Lennox makes the case that Aristotle sought to explain how individual humans gain their sets of moral virtues. Rather than issues of epistemic warrant, Aristotle focused on issues of acquisition and how the development of the moral virtues is grounded in the interaction of practical intelligence and natural virtues. This is, as Lennox puts it, a “natural history for virtue ethics.”

Michael Bradie shows that the eighteenth-century British debates about the moral status of animals raised fundamental questions about the moral nature of man as well. The question shifted from “Do animals have souls?” to “Do they have the requisite epistemic and cognitive capacities to have moral standing?” to “Do they suffer?” The shifting focus led to ambiguous answers and to a blurring of the distinction between man and animals, such that the fundamental grounding for claims about the moral standing of man came into question as well, though Bradie does not explore those latter questions at length in his essay.

Those changing assumptions about what is natural, in the context of increasing attention to the natural, provided for lively exchanges of ideas in the late eighteenth and nineteenth centuries. Phillip Sloan carries us through the French Enlightenment, from Buffon’s natural historical thinking to Lamarck’s

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transformism. He focuses on the natural-law tradition grounded in “the assumption of an intimate connection between a dynamic biological conception of human nature and an objective normative ground for ethical reasoning.” The precise nature of that intimate connection could vary, and indeed it did. Increasingly, biologists saw human nature as collapsing into the natural, rather than rising above nature, such that humans became increasingly the subjects of scientific investigation as natural animals. The discussion centered, then, on the extent to which human ethics derives from their biological nature and the extent to which some larger external agency also plays a role. For Lamarck, at least, ethical principles gained objectivity from their grounding in nature. That raised new questions and new possibilities.

Paul Farber takes up the specific possibility of an evolutionary grounding for ethics in his discussion of the French thinker Lanessan, who wrote extensively on ethics. Lanessan believed that he had derived a set of ethical principles from nature and that proper raising of children would carry those values on in the society. He apparently did not acknowledge that he had provided no compelling account of why humans *ought* to embrace those behaviors, but assumed nonetheless that his set of values was clearly preferable to others. Farber suggests that Lanessan provides an important instructive example that bears on all discussions of evolutionary ethics. The objections to Lanessan’s views hold for other evolutionary ethical arguments as well, he insists, and thus “contemporary authors who look to evolution for knowledge applicable to ethics need to be mindful of past attempts to use evolution as a foundation for ethical systems and to avoid duplicating the mistakes of the past.” This bears particularly on the discussions by Robert Richards of Darwin’s evolutionary ethics.

For the nineteenth century, we have a set of concerns of varying importance to different writers: To what extent and in what ways can ethics be informed by nature, derived from nature, or actually also justified by nature? And what is the conception of nature within which any of these discussions can be framed?

Myles Jackson introduces us to the German romantic vision of nature, emphasizing the unity of nature and its implications for the unity of ethics and politics with nature. Implicitly, he raises some of the same caveats as Farber, because the two thinkers he discusses in detail, Oken and Goethe, used their considerations of nature and ethics to reach quite different views. Both emphasized the unity of nature, including man, such that knowledge of nature was also both moral and political knowledge. Yet, for Oken, the freedom inherent in nature suggested a freedom of individual action and a political system that would lead to revolutionary action. For Goethe, in contrast, enlightened despotism was necessary to retain law and order in nature. Their

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divergent attempts at grounding ethics in the unity of nature show the complexities and uncertainties of such projects.

Robert Richards provides a meticulous picture of Darwin as inspired and influenced by the German romantics. Richards objects to the usual picture of Darwin as inhabiting a mechanistic, cruel world of blind struggle and death. Instead, Darwin saw a natural world rich with moral values and intelligence. Darwin's evolutionary ethics, then, involves not a jerking of values out of nature, as Richards puts it; rather, nature is naturally imbued with values already, and Darwin simply discovers them. Nature, for Darwin, is a source of moral value. Thus Darwin does not commit the naturalistic fallacy of moving from a descriptive fact to moral value. Rather, the value is there all along. Richards obviously admires Darwin's "accomplishment" and defends it against various criticisms, even while he admits that it is a view that "must fail under stronger metaethical analysis typical of our time." He does not, however, provide that analysis, leaving open the question whether or not Richards's reconstructed Darwin can muster a defense.

Jean Gayon gives us a major analysis of the thinking of the German philosopher Friedrich Nietzsche on the subjects of evolution and ethical thought and action. Nietzsche's stock as a philosopher has risen dramatically in recent years, and Gayon confirms that this is no fluke advance. He does argue that Nietzsche himself had confused ideas about the nature of evolutionary theory, Darwinian theory in particular, and that when these confusions are revealed and rectified (though there are still major differences) the philosophy and the science mesh more closely than one might initially have expected.

Michael Ruse takes us further into the search for an evolutionary grounding for ethics with his study of Julian Huxley and G. G. Simpson. Again we have two divergent efforts starting on similar searches. Both sought evolutionary foundations for ethics, but Huxley asked for (though not in so many words) epistemological justification, and Simpson settled for "grounding" in a more descriptive sense. Huxley demanded objective ethical truths, whereas Ruse believes that Simpson would have been satisfied with a solid account of what happens in nature and why it works to keep society functioning morally. Simpson did not need moral objectivity, then, but could explain the existence and persistence of moral norms as resulting from evolution: Society evolves, and we who are part of the evolutionary system evolve to develop a shared set of norms, which we perpetuate through training – or something like that, but with the result that we need not commit the naturalistic fallacy nor invoke the existence of absolute, objective norms outside ourselves. Ruse favors Simpson's approach, but remains sympathetic to the attempt to ground ethics (including normative ethics) in evolution and in nature.

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Marga Vicedo offers a different approach to evolutionary ethics, starting from the perspective of American geneticists of the early twentieth century. Davenport, East, Jennings, and Conklin made some interestingly different attempts to provide natural bases for ethics, attempts that led them to ethics, but also to genetics and issues of biological determinism. The ethical claims by those biologists were in some ways naive philosophically, yet they speak to a sincere impulse to provide a grounding for ethical behavior and to find that grounding in biology. East, for example, saw hope for the “new religion of science” that could give “us both an emotional inspiration and a practical procedure for enriching human life.” The causes of ethical and social behaviors lay within one’s biological nature, not outside. Yet there they diverged. Some held that this biological nature meant that actions were determined, in some cases genetically determined – thus the loss of a role for free will and responsibility. Others urged that the fact that ethical norms arise internally allows for free will and places responsibility in the individual behaviors of intelligent human beings. These men were not seeking to justify ethics through appeal to nature. Rather, they sought to root our nature in biological laws and then to provide, in their different interpretations, ways for humans to operate within those laws. Humans might either be relatively constrained or, alternatively, have opportunity to exercise free will and direct future evolution.

Diane Paul and Raphael Falk look at a slightly later period in which there were other efforts to ground ethical views in nature and then to act on what was found there. The Nazis embraced biological science and actively encouraged research. In their studies of behavior, of genetics, and of Darwinism, biologists found much that could contribute to the basis for action by the Nazi political movement. Discussions of racial hygiene and evolutionary considerations led easily to research in modern human genetics. Implicitly, that study then reinforced the assumptions of racial hygiene with which those calling for the research had begun. Thereby, Paul and Falk also introduce issues of ethical action by biologists. Is it ethical to engage in research that is used for undesirable purposes? “Sure, as long as it is good science,” their biologists would have responded. Their essay plays two themes together: What science is being done, and is it ethical? Once the science is done, what does it tell us about human behavior and about what is ethical based on that interpretation?

Peter Woolcock rejects all such efforts. Though he focuses specifically on evolutionary ethics, it is clear that he believes that no naturalized ethics can avoid the naturalistic fallacy completely, and none can escape the problem of the “altruism guarantee.” In fact, Woolcock believes that any version of evolutionary ethics that grounds ethical norms in nature will necessarily fail to explain why individual humans might act in any way other than that dictated

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by their own egoistical self-interest. Once they realize that there are no objective normative truths, why would they ever act ethically? Notwithstanding Ruse's attempts to show that they might do so because of their membership in an evolved group that shares their values and reinforces them through training, Woolcock rejects such claims. Thus, evolutionary ethics fails to provide any guidance for normative ethics. He concludes that "evolutionary theory, then, can't serve the moral reassurance role previously filled by religion. It looks as if we shall have to resolve our moral differences through the hard grind of normative justification." Yet that will not, Woolcock suggests, prove as difficult as skeptics such as our Professor Dingle would suggest.

Robert McShea and Daniel McShea offer an alternative interpretation. Rejecting evolutionary or genetic accounts, they look instead to emotivist interpretations of the development of ethics. Neither a god nor any other purported factor outside human nature can account for the development of ethical behavior and ethical choices – only the "human nature value theory" or emotivism will do. Feeling, as exhibited in brain states, is separate from behavior and guides behavior in humans. Human nature, then, is the validation of value judgments responding to the "human feeling profile" and produces ethical behavior. The result is that humans must do what they will to do – what they really will to do. The authors acknowledge that they do not have proof for their point of view, but feel that the strength lies in the problems that beset all other alternatives and the relative strengths of their interpretation.

We see herein a rich diversity of viewpoints, all within the context of concern to ground ethics in nature. Some engage in metaethics, seeking to justify and provide epistemic warrant for ethical norms in biological nature; these authors generally hold to some version of ethical objectivity or truth. Others provide descriptive accounts and explanations, even causal explanations of ethical behaviors in nature, but stop short of demanding justification or even objectivity. Still others rest content to outline what happens in nature. All the arguments from nature to ethics are problematic in various ways, yet the appeal of the general effort is compelling. For the naturalist, who has rejected the efficacy of religion and higher-order values, where else is there to look? As Woolcock points out, if all we have are descriptions, it is difficult to see why humans would behave ethically (implying socially rather than selfishly) toward others. So the discussion continues.

With the diversity of views presented in these essays, and with the recognition that there are many different ways to approach the relationships between biology and ethics, we have made real progress toward posing our questions more cogently. And as Farber clearly shows, we also see ways in which we can learn from history and from the failures of past arguments.

The studies presented here focus on biologists and their contributions to

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discussions of biology and ethics; other biologists, ranging from E. O. Wilson to Franz de Waal, have advanced further arguments and viewpoints. Yet these studies have been done by historians and philosophers of science reflecting on the past biological arguments. With this foundation and these interpretations, we hope that moral theorists will begin to take the biological contributions more seriously and that biologists can begin to make their arguments more persuasive philosophically.

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1

Aristotle on the Biological Roots of Virtue**The Natural History of Natural Virtue***James G. Lennox*

INTRODUCTION

Traditionally, attempts to relate Aristotle's well-known passion for biology to his ethical thought have focused on two points of intersection. In *Nicomachean Ethics* I 7, Aristotle relies heavily on the idea that human excellence (or virtue) must be the excellence of a specifically human functional capacity, and his approach to defining that capacity is reminiscent of *De Anima* II 2–3: Functions shared with plants and animals are ruled out in favor of those that are distinctively human, those associated with reason. This so-called function argument has generated a good deal of scholarly discussion, but a careful reading of it, especially in light of Aristotle's remarks at 1102a13–32 about the limited need for a scientific understanding of the soul for the purposes of ethics, must lead one to conclude that no detailed understanding of biology was needed to craft it.¹

A second point of possible intersection on which scholars have focused is Aristotle's concept of a political animal, used often in the biological works and extending to many species other than man. Furthermore, Aristotle's *Politics*, much more than his *Nicomachean Ethics*, is a "biological" work, opening with an extended narrative about the natural growth of the *polis* out of essentially biological origins:

This essay has benefited at various stages from the helpful comments of a number of people. I want especially to single out the detailed written suggestions of David Depew, Mark Gifford, Aryeh Kosman, and Ursula Wolf, and discussions with John McDowell at the 4-Way Workshop on Human Nature in Berlin. I would also like to thank Mark Gifford, the organizer of a conference on *NE VI* at Virginia Polytechnic Institute and State University, for sharing my essay with the participants and for sharing the circulated papers with me. Because of prior commitments, I was unable to attend, but I have learned much from the papers presented, especially those of Professors Dahl and Gifford noted herein.