In his new book *The Social Conquest of Earth* (2012), naturalist E. O. Wilson argues that our best chance at understanding and advancing morality will come when we “explain the origin of religion and morality as special events in the evolutionary history of humanity driven by natural selection.” This is a bold claim, yet a familiar one for Wilson, who has been advocating something like this approach to human morality ever since his landmark 1975 work *Sociobiology*.

In that book, Wilson provocatively argued that “scientists and humanists should consider together the possibility that the time has come for ethics to be removed temporarily from the hands of the philosophers” and that ethics should instead be “biologicized”: questions once debated seemingly without end by philosophers will be settled by biologists using the same methods by which they have explained digestion, reproduction, and all of the other evolved drives and functions of the body.

The unification of science and morality, on Wilson’s count, would be a much-needed revolution for ethics. But it has also long been one of the desiderata of the Enlightenment project—which has been so successful in fulfilling its promise of advancing our scientific knowledge and our material wellbeing, yet seems to have made so little progress in settling debates over ethics. The consilience of the human and natural sciences that Wilson’s sociobiological project promises would carry on the scientific method’s “unrelenting application of reason” to the field of ethics, and finally begin to establish a stable, wise, and enduring ethical code for the future.

Wilson’s vision has earned him the title of prophet from social psychologist Jonathan Haidt, and his work has been seminal in the field of evolutionary ethics—the study of the evolutionary origins of our moral beliefs and practices. Yet, though Wilson can be considered one of the most articulate proponents of the project to biologicize ethics, his work also, in spite of itself, reveals the greatest barriers to carrying it out.

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Disquieting Precedents

When Wilson embarked on the quest for the unity of evolutionary biology and ethics in the 1970s, it was in fact already an old idea with a deeply troubled history. The movement now known as Social Darwinism, which arose not long after the 1859 publication of *The Origin of Species*, attempted to apply the principles of natural selection to social and political institutions. It inspired claims—touted as scientific—about heredity, genetics, and evolution that were adopted by the eugenics movement in the United States and elsewhere. Under various state eugenics laws, tens of thousands of people were sterilized in the United States during the twentieth century—decisions often made on the basis of ostensibly scientific evidence about an individual’s supposed genetic inferiority. The American eugenics program even influenced Hitler’s racist policies, which likewise claimed scientific authority.

Books by Edward O. Wilson

*The Social Conquest of Earth*
Liveright ~ 2012 ~ 352 pp. ~ $27.95 (cloth)

*The Creation: An Appeal to Save Life on Earth*
Norton ~ orig. 2006 ~ 192 pp. ~ $14.95 (paper)

*The Future of Life*
Vintage ~ orig. 2002 ~ 256 pp. ~ $15.95 (paper)

*Consilience: The Unity of Knowledge*
Vintage ~ orig. 1998 ~ 367 pp. ~ $14 (paper)

*Biophilia*
Harvard ~ 1984 ~ 157 pp. ~ $24 (paper)

*On Human Nature (Revised Edition)*
Harvard ~ 2004 (orig. 1978) ~ 288 pp. ~ $27 (paper)

*Sociobiology: The New Synthesis (Twenty-Fifth Anniversary Edition)*
Belknap ~ 2000 (orig. 1975) ~ 720 pp. ~ $52.50 (paper)
It is in this context that one must see the controversy that arose
when Wilson began to revive the effort to advance moral claims based
on biological science. Most memorably, protesters rushed the stage at a
February 1978 meeting of the American Association for the Advancement
of Science just as Wilson was about to begin a talk. They chanted “racist
Wilson you can’t hide, we charge you with genocide” and threw a cup
of water at him (later embellished in legend into a full pitcher of ice water).
Unfazed, Wilson went on with his remarks, and in later years referred to
the incident with pride, depicting himself as a scientist willing to pursue
the truth despite public vilification and physical attacks, a twentieth-
century Galileo.

The charge that Wilson is a racist or misogynist is of course utterly
unfounded; to the contrary, he is the quintessential liberal humanist. Just
the same, in his 1978 Pulitzer Prize-winning book On Human Nature,
Wilson voiced support for a renewed program of eugenics. While he
conceded that given our limited understanding of human genetics we
should at present aim to preserve the entire gene pool, he maintained that
in the future, when we have “almost unimaginably greater knowledge of
human heredity,” we may be able to institute a “democratically contrived
eugenics.”

Wilson’s discussion of eugenics in On Human Nature evinces not the
prejudice and racism of which he had been accused, but rather a naïveté
about the prospect that science will be guided by the essential goodness
and rationality of mankind. Not only does Wilson display too much confi-
dence in science’s ability to control human genetics safely, he also believes
that adherence to the democratic process will eliminate the potential for
abuse. Though On Human Nature appeared little more than three decades
after the Nazi movement was vanquished, Wilson’s confidence in histori-
cal progress guided by biological science seems largely unaffected by that
dark chapter in recent history. And his invocation of a “democratically
corrived eugenics” suggests that the abuses of eugenics would not hap-
pen in a democracy, yet the eugenics movement was not simply undem-
ocratic; as mentioned above, it flourished in the United States before it was
copied by the Nazis.

In a chapter on the subject of aggression, Wilson makes a passing
reference to the human “biological predisposition” to wage war, but he
assures the reader that the evolution of “organized aggression” will be
“determined by cultural processes brought increasingly under the control
of rational thought.” Wilson’s confidence in the future may yet prove justi-
fied, but it is indeed remarkable that he so quickly dismisses the atrocities
committed in the twentieth century by modern, culturally advanced societies that saw themselves as governing in the light of science, and their implications for his own project.

**Nature and Morality**

The discipline of evolutionary ethics can be divided into two broad camps. The one to which Wilson belongs—and for which he may be the most prominent spokesman—views evolutionary explanations of morality as a way to improve our understanding of what is moral and to put ethical claims on a stronger foundation. By looking to the evolutionary origins of ethics, we can sweep away outmoded, false beliefs about God-given commandments or categorical imperatives commanded by “reason” and replace them with a scientific, empirically grounded understanding of morality. Moreover, understanding how morality evolved will help us to recognize our Stone-Age moral principles and proclivities, and create a new ethical framework fitted to the problems of the modern world. This conclusion fits well with Wilson’s own normative goals in support of conservation and environmentalism. Unlike our ancestors, who evolved to deal with local and immediate threats to their survival on the African savannah, humanity today is a geophysical force, causing mass extinctions and changes to the earth’s climate. To deal with the global challenges science and technology pose, we must develop a new ethic of environmental responsibility.

But there is a second, more radical school of thought in evolutionary ethics. This view holds that evolutionary biology, rather than providing a basis for improving or modernizing ethics, shows that the idea of objective ethical rules is inherently mistaken. Wilson has a foot in this camp as well. In his 1986 essay “Moral Philosophy as Applied Science,” written with philosopher Michael Ruse, he argues that we now understand that we have been “deceived by our genes” into believing that morality objectively binds us, that there is a real right versus wrong.

This view is best characterized as a form of moral nihilism, the idea that moral obligations do not exist. Wilson tries to avoid the nihilistic position by insisting that the illusion of right and wrong is so deeply built into us that even recognizing it as an illusion will not likely make a difference in our behavior. But committed moral nihilists reject this response: realizing that moral claims are illusions surely means that moral claims are false. There is, under this view, no real ethical difference between the actions of the vilest criminal and the most virtuous saint.
There are stronger grounds than Wilson offers, however, for rejecting the moral nihilism that some say is a consequence of evolutionary biology. Consider an analogy with mathematics and science. Like our ability to think about the morality of our actions, the cognitive abilities underlying mathematics and science are in some sense products of evolution. But this fact has no significant implications regarding our ability to objectively study mathematics or physics, and it certainly does not imply that numbers, molecules, or, for that matter, the genes, brains, and bodies studied by evolutionary biologists are fictions. Likewise, the discovery that ethical values have been shaped by evolution should not necessarily have any dire implications for the objective status of ethical claims. To be sure, evolution might help us to understand some basic human tendencies—especially in terms of our regular failure to adhere to what we identify as right and shun what we identify as wrong—and to recognize the need to attempt to counter the influence of those tendencies. But the discovery that, for example, racism may have evolutionary origins has no ethical relevance. It does not demonstrate that racism is morally good even if it once helped promote survival. Nor does it make a case against racism simply because it arose from our tribal past.

This point is essentially a restatement of the Is-Ought problem first articulated by Scottish philosopher David Hume concerning the logical impossibility of inferring what ought to be from what is the case. The same restriction applies to evolutionary biology: it can tell us about what happened in the past, and about the natural behavioral tendencies we have now, but is not sufficient to tell us what we ought to do now or in the future.

In their essay, Wilson and Ruse argue that evolutionary biology provides a solution to the Is-Ought problem. Against the argument that ethical truths are independent of human bodies and human nature, they claim that there exist “internal moral premises” that depend on “the unique programs of the brain that originated during evolution.” These internal premises and programs give rise to “feelings of right and wrong” that are “powerful enough to serve as a foundation for ethical codes.” Deeper understanding of the brain will eventually allow us to establish even more “enduring codes” than we are now able to spell out.

Wilson and Ruse here, like many evolutionary ethicists, are engaging in what philosophers call “emotivism”: reducing moral judgments to emotions or sentiments, and denying those judgments any claim to objectivity. Among the many troubles with this position is that it provides no criteria for distinguishing what are generally thought of as morally good
emotions, like love, kindness, and trust, from bad or selfish ones, like greed and hatred. This is one reason most moral philosophers have rejected emotivism: treating mere feelings as moral principles means that any such principle has a binding force no greater than that of any person’s or group’s preference for one thing over another. Wilson insists that we can hold on to our moral values and even improve them—but why should we, if they are no more than emotions that evolved to further the reproductive success of our ancestors? Even if we could establish scientifically that all human beings share certain preferences, it is far from clear which we should consider good, or why in any case we should not break our own molds and remake ourselves in pursuit of other preferences.

Wilson’s attempt to ground moral judgments in internal biological structures that give rise to feelings therefore amounts in practice to the moral nihilism he tried to avoid. Feelings of right and wrong themselves provide no basis for whether or not they should be obeyed or overcome, which is to say that no moral judgments binding on anyone could be made with the help of those feelings.

Instinctive Conservationists?

Wilson’s most ambitious attempt to found a system of morality on the basis of evolved sentiments is his “biophilia” hypothesis, which he defends in his 1984 book of that name. He defines biophilia as “the innate tendency to focus on life and lifelike processes,” and quickly becomes more poetic than scientific: “our existence depends on this propensity, our spirit is woven from it, hope rises on its currents.” The idea seems to be that an essential element of human nature, “irrational” though it may appear, is our universal love for all living things.

For an evolutionary ethicist such as Wilson, the biophilia hypothesis has great advantages. It allows him to avoid the Is-Ought problem and the difficulty of transforming statements about our biological makeup into ethical principles. Instead, the principle (or rather the emotion) is already there, ready-made: all biologists need to do is appeal to this natural love of life, which they also happen to be best suited to amplify by teaching people more about the world and man’s place in it. Biologists therefore need not get into the business of dictating values to other people. Best of all, the hypothesis happens to support one of the moral values most important to Wilson: the conservation ethic. Even if it tells us nothing about how to resolve moral controversies such as abortion, targeted killings by drones, or torture of terrorists, one value it does support is protecting the natural
world, preventing habitat destruction and species extinction, and addressing the problems of overpopulation and climate change.

The biophilia hypothesis has understandably proven quite popular among many environmentalists, as it invokes a highly attractive, idyllic state of harmonious coexistence between man and nature and a flattering image of mankind as loving and beneficent rather than cruel and rapacious. There has even arisen a magazine inspired by Wilson, called *Biophile*, which bears the motto, “For the love of our Earth, and all who live on her.” It touts how scientists are now coming to understand the “restorative” value of the natural world for recovery from illness and “burned-out psyches.”

Contrary to Wilson’s protestations, however, there is very little evidence from either biology or the human sciences that a biophilia drive exists except in the vaguest sense, or that it would have had any survival value in our evolutionary history. The only evidence Wilson draws on is his highly selective observation of contemporary human behavior. Some people, especially naturalists like Wilson, are lovers of nature. But many other people are not. In Plato’s dialogue *Phaedrus*, Socrates’ interlocutor asks him why he never goes beyond the city walls. Socrates replies, “I am a lover of learning, and trees and open country won’t teach me anything.” The humorist Dave Barry once defined “nature” as whatever you would kill if it got inside your house. Not everyone is a nature lover.

Defenders of biophilia note the popularity of zoos, camping trips, and visits to national parks—yet people spend far more time indoors, and increasingly more so as civilization advances. As two biologists noted in a 2007 article in the *Journal of Developmental Processes*, biophilia may be in decline anyway: there is “a trend away from interactions with nature and a concurrent rise in the use of electronic entertainment media.” They posit “a fundamental shift…from ‘biophilia’ to ‘videophilia,’” although they are cautious enough to describe the latter only as a “tendency,” not an *innate* tendency or a drive. Indeed, Wilson’s idea that there is an “innate tendency to focus on life and lifelike processes” is, in any case, too vague in each of its terms to be considered a serious scientific hypothesis.

Even if the biophilia hypothesis were true, it would not accomplish what Wilson intends it to. On the one hand, he wants to turn moral philosophy into an “applied science,” usurping the role of philosophers who prescribe norms from on high. But on the other, he wants to create a demanding new ethic of conservation—an ethic that is necessary to drastically alter the human behavior that has damaged the environment in the first place.
In his 2006 book *The Creation: An Appeal to Save Life on Earth*, Wilson attempts to come to terms with these shortcomings of the biophilia hypothesis, arguing that civilization itself “was purchased by the betrayal of Nature” and that the “modern technoscientific revolution” has “betrayed Nature a second time.” These observations are meant to show where and how humanity’s innate love of nature was waylaid by historical forces. Yet they could also show that whatever innate love of nature our ancestors may have possessed, it is extremely weak and easily overpowered by other drives, such as those for prosperity and control. In fact, in *The Future of Life* (2002) he posits a countervailing “biophobia” drive—a distaste for and apprehension of nature.

Ever the optimist, Wilson believes that our successive betrayals of nature are but temporary aberrations, and that once biologists teach us more about the natural world and our place in it, the biophilic drive will prevail, creating a revolution in our moral values that places reverence for all life at the top of our most cherished principles. In *The Creation*, Wilson asserts that “as the scientific study of human nature and living Nature grows...[h]e central ethic will shift, and we will come full circle to cherish all of life—not just our own.”

The problem is that Wilson seeks to bring about a revolution in ethics without doing ethics—that is, without making any prescriptions, only predictions. He has painted himself into a corner: biophilia in his theory can only be a personal preference, not an objective value. Wilson thus falls back on the dubious hope that biophilia will be unleashed the more biologists can share their knowledge of the natural world with the general public. To try to do ethics without genuine values and prescriptive moral principles is like trying to do science without recourse to facts and observations.

**Fundamental Tensions**

Wilson’s strained effort to create a system of ethics based on evolutionary biology reflects a tension in the modern conception of humanity that has been with us since the eighteenth century. In the early days of the Enlightenment, the French *philosophes* celebrated human autonomy, our capacity for reasoning, and our ability to control the environment and make progress towards an ever-better world. But the tremendous success of the natural sciences at explaining the natural world also created an intellectual project almost entirely contrary to the celebration of autonomy—an attempt to assimilate human beings to the sorts of objects...
physicists and chemists deal with: externally determined, mechanical things strictly governed by physical law.

These two projects were never reconciled, and the division is still evident in the disciplinary split we now see in the universities: the humanities inherit the conception of man as free, rational, and self-determining, while biologists and many psychologists—as the natural scientists whose subject is human beings—describe us as passive objects of instincts and drives shaped by the forces of natural selection, and insist that free will is basically incompatible with such determinisms.

No one better illustrates this paradox than Wilson. In his 1999 book *Consilience: The Unity of Knowledge*, he celebrates the infinite capacities of man to increase knowledge, breathlessly predicting that “humanity will be positioned godlike to take control of its own ultimate fate.” In *On Human Nature*, he holds that our biological tendency for aggression and war will be “brought increasingly under the control of rational thought.” And Wilson’s recent confession of “blind faith” in *The Social Conquest of Earth* ends with the declaration that through “simple decency” along with “the unrelenting application of reason,” the earth can be turned into a “permanent paradise.” His confidence is rooted in his conviction of absolute human uniqueness: we are the “first truly free species”—about to escape the influence of natural selection—and there “is no genetic destiny outside our free will,” should we use our reason wisely.

But then there is the other side of Wilson’s philosophy. In spite of himself, Wilson’s reductionist commitments lead him to insist that free will is only an illusion. Though “some philosophers still argue [it] sets us apart”—and one would have to include Wilson among these philosophers!—nonetheless free will is no more than a “product of the subconscious decision-making center of the brain that gives the cerebral cortex the illusion of independent action.” So Wilson is at once a moralist (“The time has come,” he says in *The Social Conquest of Earth*, for an ethic that “places value on the whole of diversity…instead of using it to justify prejudice and conflict”) and a moral determinist, holding that moral decisions are causal and impulse-driven rather than rational and free. He cannot resist trying to have it both ways: we are free and determined; rational and instinctual; autonomous and mechanistic.

These conflicting views of free will coexist in a continual dialectic in Wilson’s work, but most notably in his account of morality. Moral sentiments, Wilson says, are the product of the “hypothalamic-limbic complex” in the brain, and yet through our use of reason and will, we can make them “increasingly wise and stable through the understanding of the needs and
pitfalls of human nature.” Morality is based on emotions, yet we need to cultivate a “rationalist” basis for it. Morality is a delusion, and it is also the most important thing in human life.

Not surprisingly, Wilson is unable to reconcile these contradictory conceptions of free will and human nature, the humanistic and the scientific. But it is, in a way, a tribute to his breadth of mind that he recognizes and embraces both of them, in contrast to the prevailing trend in evolutionary ethics towards simple moral determinism and nihilism. For Wilson, ethics evolved to maximize reproductive fitness, but now we are able to use our wisdom to shape ethics for the pursuit of higher goals, such as democracy, human rights, and even respect for other species.

Where Wilson goes wrong is in his belief that science and especially evolutionary biology will revolutionize the humanities in general and ethics in particular. As he puts it in *The Social Conquest of Earth*, what he seeks to advance is “an ethic of simple decency to one another.” But what “simple decency” means has of course never been simple. It is the role of the humanities and moral philosophy to explore problems like this. In order to fully comprehend human nature, there must always be a place for philosophy, history, literary studies, and even theology—disciplines that complement the natural sciences and fill in the picture of the human being as a free and rational agent. Whatever Wilson hopes, no purely biological investigation of our evolutionary origins is going to answer those kinds of questions; or rather, it will answer them in the wrong way, ending up in emotivism or moral nihilism.

Perhaps Wilson’s greatest legacy will be the lesson of his inner conflict on this question: his desire for a unified scientific conception of humanity warring with his equally powerful belief in Enlightenment humanism. For the better of all of us, Wilson is far too broad-minded to take his reductionist predilections to heart—even if sometimes they do get the better of him.