EVOLUTIONARY ETHICS: WHAT CAN WE LEARN FROM THE PAST?

by Michael Ruse

Abstract. In this paper I look at the question of the derivation of ethics from evolutionary biology, and I do so by considering both historical attempts to make such a derivation and contemporary work.

Keywords: Charles Darwin; social Darwinism; sociobiology; Herbert Spencer; Edward O. Wilson.

I am a historian and philosopher of science. For the past fifteen years, wearing my philosophical hat, I have been arguing enthusiastically that evolution has much of value to tell us about ethics, both at the level of foundations ("metaethics") and at the level of practical direction ("substantive" or "normative" ethics). I have argued that modern developments in biology, particularly sociobiology, offer exciting new directions for our thinking about the philosophy of morality (Ruse 1986a, 1986b, 1994; Ruse and Wilson 1985, 1986). I still think this, very strongly, but I want now to change hats and to turn to history. I believe that those who are ignorant of the past and its mistakes are condemned to repeat them. Hence, I want to look to the history of evolutionary theory and to earlier attempts to provide an evolutionary ethics. I hope thereby to learn much of pertinence to us today.

Erasmus Darwin

The idea of organic evolution, that is to say the gradual transformation of organisms from forms very different from those existing today through a natural law-bound process, is one which began to take root in the middle

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[*Zygon*, vol. 34, no. 3 (September 1999).]
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of the eighteenth century (Bowler 1984; Ruse 1996). There were reasons why things happened at this time and not at others. On the one hand, one had increasing numbers of discoveries about the nature of organisms and their reproduction, about geographical distributions, and increasingly, as the century went on, about the fabulous and strange denizens of the past as revealed through the fossil record. But backing these empirical studies, and in a sense making a coherent picture out of them, was the eighteenth-century commitment to cultural and social progress: the belief that through our unaided reason we humans can improve our understanding of reality and through this the social conditions in which we live. Seeking to justify this socioeconomic ideology, we find more and more thinkers turned to the world of life to find a reflection of their beliefs at large, a reflection that could then be used to justify their socioeconomic commitments. One such person was the late eighteenth-century physician and friend of industrialists, Erasmus Darwin, grandfather of Charles Darwin (Darwin 1794–1796; McNeill 1987). He was absolutely and totally committed to the necessity and virtues of social and industrial progress, and he felt convinced that these beliefs would be found confirmed throughout the whole of creation. (Erasmus Darwin was a deist, believing in God as an unmoved mover.) Much to his satisfaction, he found his suppositions to be true; in verse, which his contemporaries valued more highly than did posterity, Erasmus Darwin hymned the perpetual improvement that he found leading from the most primitive forms up to humankind.

Organic Life beneath the shoreless waves
Was born and nurs'd in Ocean's pearly caves;
First forms minute, unseen by spheric glass,
Move on the mud, or pierce the watery mass;
These, as successive generations bloom,
New powers acquire, and larger limbs assume;
Whence countless groups of vegetation spring,
And breathing realms of fin, and feet, and wing.
Thus the tall Oak, the giant of the wood,
Which bears Britannia's thunders on the flood;
The Whale, unmeasured monster of the main,
The lordly Lion, monarch of the plain,
The Eagle soaring in the realms of air,
Whose eye undazzled drinks the solar glare,
Imperious man, who rules the bestial crowd,
Of language, reason, and reflection proud,
With brow erect who scorns this earthy sod,
And styles himself the image of his God;
Arose from rudiments of form and sense,
An embryon point, or microscopic ens!

—Darwin 1803, 1, 295–314

I think it is fair to say, and I mean this claim very seriously indeed, that for Erasmus Darwin organic evolution was part and parcel of a world system that can best be characterized as a "secular religion." Historians of

progress have shown in some detail how the very notion acted as a counter to the Christian beliefs in Providence, that is, of God's power working its way in the world and of salvation coming through God's grace (Bury [1920] 1924). For the progressionists, the picture was one of self-help and of improvement coming only in this human-driven direction. For Erasmus Darwin, and indeed for others, this philosophy/ideology provided a complete and satisfying metaphysical picture, and the progressivist evolutionism that he ascribed to the organic world was clearly intended as a rival to the picture of creation as given in the Old Testament.

Does morality have a place in this world picture? Religions, at least the best of them, have much to say on the subject of morality. They prescribe a moral code, often in great detail. It is not too much of an exaggeration to say that much of the success of Judaism and of its offshoot Christianity lies in the ways in which they direct humans into the courses of right action: the Ten Commandments and the prescriptions of the Sermon on the Mount, not to mention the great commandment, "Love your neighbor as yourself." Likewise, the evolutionist Erasmus Darwin sought and found moral direction from his world picture. As a utilitarian, he believed that progress increases and maximizes happiness, initially in the animal world and ultimately in the human world. This, he thought, was the story of history, and from this we get the directives that humans should take: to press onward with progress in our realm as nature has done in its realm, thus increasing the sum total of human happiness. For Erasmus Darwin, this meant increased use of industrial ideas and techniques backed by the findings of the (primarily Scottish) political economists of the day. For him, as for others in his group, it was a moral imperative that one allow trade and business to proceed as unencumbered as possible and to invoke the best economic doctrines of the day, notably the division of labor, something that was being practiced with increasing skill and success in British industrial circles. For Erasmus Darwin, therefore, evolution and ethics were a seamless whole. At once one was given ethical directions, and it is obvious that conversely his ethical imperatives in some sense informed his thinking about evolution.

Charles Darwin

Let us move the clock forward rapidly now. Much of what has been said about Erasmus Darwin can be applied almost without change to other evolutionists of the early period, notably to Jean Baptiste de Lamarck in France and (somewhat toward the middle of the nineteenth century) to the Edinburgh businessman Robert Chambers, the anonymous author of the evolutionary tract *Vestiges of the Natural History of Creation* (1844). But did not all of this using of evolution as a kind of secular religion come to an end with the life and work of Erasmus Darwin's grandson Charles Robert Darwin? Surely it is the case that, with his theory of evolution

through natural selection as presented to the world in his great *On the Origin of Species* in 1859, he completely changed the picture. Unlike his grandfather, Charles Darwin produced a genuine scientific theory, one rooted in the nature of the world rather than in some socioeconomic ideology. For this reason, therefore, it would be quite incorrect to characterize Charles Darwin's thinking as, in any sense, a secular religion. Equally for this reason, it would be a mistake and futile to search in his thinking for ethical directives.

There is much truth in all of this, although the full story is rather more complex than tradition would have it. Certainly, Charles Darwin does represent a watershed in the history of evolutionary thought (Ruse 1979). Before him, evolution at best was a pseudoscience, on a par with such other pseudosciences as phrenology or Mesmerism. After Darwin, evolution was a respectable scientific doctrine. And a major reason for this change in status was that, in order to make his case for the truth of evolution, Darwin did indeed rely (in a way unlike Erasmus) on facts of the organic world, most famously the analogy from artificial selection but also the full gamut of animal instinct, biography, paleontology, systematics, morphology, embryology, and more. In addition, one searches in the *Origin* in vain for any moral directives. Yet, I am not sure that Charles Darwin was quite as pure as all this, if that is the appropriate term to use. Certainly, if one turns to Darwin's later work on our own species, *The Descent of Man*, one finds many claims that have the air of moral dicta about them—for instance, about the virtues of capitalism and of the ways in which this system frees a number of people to pursue intellectual activities, supposedly of ultimate benefit to all of humankind. Moreover, although on occasions Darwin seems to speak negatively of the notion, overall he was clearly as committed to progressionism as was his grandfather. Indeed, although the first edition of *Origin* is relatively silent on the subject, by the third edition of 1861, one finds Darwin writing in all sorts of progressivist sentiments, sentiments which can also be found in later writings (Ospovat 1981; Ruse 1996).

I mention these points not to force some radical revision on our thinking about Darwin. I still agree that evolution for him did not represent a secular religion in the way that it did for his grandfather. Indeed, as he introduced the notion of progress into the *Origin*, Darwin tried to provide a nonideological motive or mechanism, a kind of comparative evolutionary progress as organisms of different lines compete and thus perfect their adaptations. (This is a process which today we label "arms races.") Rather, I point to these facts to suggest that even though evolution may not have had the same ideological role for Charles Darwin as it had for his grandfather Erasmus, perhaps we might expect to find that others would not be so nice in their discrimination. The middle of the nineteenth century was a time when conventional Christianity no longer filled the religious niche in

society that it had previously. This was for many reasons, most of which had little to do with science; at least as significant were Christianity's failure to speak to the needs of a modern industrial society and a diminishing of faith in the Bible stemming from the techniques and findings of German scholarship, so-called higher criticism. But whatever the factors, we might expect to find that others would eagerly seize on the evolutionary message, using it as a Christianity substitute, and through and from evolution deriving moral norms (Moore 1979).

Herbert Spencer

We are not disappointed in our expectations. Darwin may have been uncomfortable in turning evolution to ideological ends, but his fellow Englishman, the sociologist, philosopher, and biologist Herbert Spencer, far more famous in his day, had no such qualms. For Spencer—and his many, many followers—evolution was always more than mere science: it was a world picture, something that held uniformly throughout creation, and a substitute for the supposed moribund religions of the past. We find Spencer arguing that evolution is a universal process taking us progressively from the simple to the complex, as the hitherto straightforward or homogenous is transformed into the later-differentiated or heterogenous. Spencer argued that the world is forever trying to achieve some kind of balance or equilibrium: this is a moving or dynamic equilibrium as external forces impinge, thus leading to increased complexity and a progressive rise upward (Spencer [1857] 1868; 1862; 1864). Spencer believed that this is true in the cosmological world, it is true in the organic world, and it is also true in the social world. Even in such areas as language, Spencer saw the ongoing process from the homogenous to the heterogenous; chauvinistically, he claimed that this showed the superiority of English over all other languages, given its undoubted complexity!

What then of ethical directions? It is a well-known fact—one of those well-known facts that proves on examination to be more well known than factual—that Spencer (1892) endorsed some kind of laissez-faire socioeconomic philosophy. He believed that there is an ongoing struggle for existence in the organic world and that this leads to evolution. Hence, we should promote an ongoing struggle for existence in the social world, and this likewise will lead to evolution. If the state does not interfere in human interactions, then although undoubtedly some will suffer—the widows and children will go to the wall—as a whole humankind will benefit. Yet, while it is undoubtedly true some of these ideas can be found in Spencer's writings, they are not truly rooted in his evolution, nor do they represent the fullest thrust of his moral drive (Richards 1987). If anything, their origin lay most fully in the nonconformist influences of Spencer's childhood: laissez-faire views were a commonplace among the folk of his childhood, who saw the state very much as representing the interests of the

status quo—the established church, the aristocracy, and the gentry—and not of the members of the other Protestant churches, the business people, shopkeepers, and the like. Moreover, although it is true that Spencer believed in a struggle for existence and indeed came (independently of Darwin) to the idea of natural selection, in his world picture these were never the chief mechanisms of evolutionary change. Spencer rather was ever a committed Lamarckian, believing in the inheritance of acquired characters and thinking that with progress, if anything, the struggle for existence will drop away!

The point that I am preparing to make is that far more important for Spencer from a moral perspective than any simple crude laissez-faire doctrines was a general approach to human conduct that would lead to a progressive rise upward. And the same was true of Spencer's many followers in England, in America particularly, and elsewhere in the world, even unto the Far East and China, where it was considered de rigueur for the progressive young thinker to subscribe to Spencerian beliefs (Pusey 1983). Interestingly, although perhaps not surprisingly, the social implications and ethical implications of evolutionism—somewhat mistakenly characterized as "social Darwinism"—tended to take on different and even contradictory directions in different hands and according to different cultures. Just as Christians differ, often bitterly, over the proper interpretation of the ethical norms of the New Testament—in wartime, Quakers deplore violence while military padres urge on the troops to victory in the name of the same Savior—so we find that Spencerians promoted quite opposing moral doctrines in the name of the same evolutionism (Russett 1976; Bannister 1979).

Spencer himself was always an ardent opponent of militarism, seeing it both as wasteful and as something that would erect barriers to free trade and thus deny the possibilities of full and open competition (Crook 1994). On the other hand, particularly in Germany, where the state was united under Bismarck and scored early and significant military successes against France, we find that evolutionists argued strenuously that the real struggle occurs at the level of the group and that consequently one ought to promote military prowess within the group in order to face successfully the struggles to come from outside (Haeckel 1866, 1868). Then again, even if he was not the cutthroat capitalist of lore, we do find Spencer promoting competition in the name of evolution, and it is certainly true that this was a belief strongly endorsed by many of his American followers, particularly industrialists such as John D. Rockefeller Sr. and Andrew Carnegie, the Scottish immigrant who founded U.S. Steel. For them, competition was the lifeblood of the capitalist and evolutionary process. On the other side, however, we find that the American Marxists owed at least as much, if not more, to Herbert Spencer as they did to Karl Marx, and they argued that progress is possible only through some form of socialism (Pittenger 1993)!

In this they were joined by the codiscoverer of natural selection, Alfred Russel Wallace (who at one point was so taken with Spencer's ideas that he even named a son after him), who argued earnestly for the desirability of a socialist society here on earth. It was true that, in respects, the ultimate origins of Wallace's beliefs lay in his boyhood exposure to the socialist Robert Owen, as well as in his experiences of the hardships caused by land enclosure. But as a mature thinker, Wallace's justifications were always cast in evolutionary terms (Wallace 1900, 1905).

Finally, as an example of conflicting moral directives, one might mention the ongoing feminism problem. There were those who argued in the name of evolution that the enfranchisement of woman would not be simply a bad thing but hugely disastrous from an evolutionary perspective. American paleontologists Alpheus Hyatt and Edward Drinker Cope both argued that giving woman the vote would be a denial of proper evolution principles. On the other side we find Wallace again, now arguing that unless and until women take control of evolution we shall remain in a state of stagnation if not degeneration: only when women seize power can we expect happy upward progress (Ruse 1996).

Thomas Henry Huxley

Was there no one in the late nineteenth century who felt uncomfortable about this use of evolution as an ideology, as a secular religion? Charles Darwin himself had been one standout, but as the idea of evolution was turned from its strict scientific purposes in the 1860s, my suspicion is that in many respects he acquiesced and agreed with the new directions. After all, no one was doing better out of capitalism than the grandson of one Josiah Wedgwood and the son-in-law of another. Mention has already been made of the fact that *The Descent of Man* (1871) is a better place to look for moral directives than the *Origin of Species* (1859). However, one who did come to stand more firmly against this whole practice was Darwin's "Bulldog" and great supporter, Thomas Henry Huxley. If anything, Huxley went the opposite direction from Darwin. As young men, Huxley and Spencer were very close friends; it is probable that Spencer even more than Darwin was the cause of Huxley's becoming an evolutionist. Expectedly, in the 1860s we find Huxley subscribing with more or less enthusiasm to a Spencerian vision of the world. (It is significant that Huxley was ever dubious about Darwin's mechanism of selection.) But by the 1870s, as one who was making his way successfully as both a professional educator and a civil servant serving on many royal commissions, Huxley was turning away from naive laissez-faire and subscribing much more to a view that extolled the virtues of an integrated state and a proper functioning bureaucracy (Huxley 1871).

Then, by the 1880s and 1890s, perhaps reflecting a general decline in optimism about ongoing progressive change—there had been terrible

agricultural depressions in Britain as well as much increased competition from the growing might of continental countries—we find Huxley turning more and more against the whole notion that morality comes from evolution and that justification of moral creeds lies in the need to continue to promote the ongoing progressive rise upward. At the time of Huxley's greatest essay, "Evolution and Ethics" (1893), he was decidedly critical of the notion that evolution is in some sense properly considered a progressivist doctrine. And he was even more critical of the idea that from evolution comes morality. Indeed, quite explicitly, Huxley argued that true moral directives often lie in combating and fighting evolution rather than going smoothly with it. The adaptations that lead to success in the struggle for existence, argued Huxley, are often if not usually adaptations that lead one in a direction away from moral virtues.

This did not mean, however, that Huxley had weakened in any sense in his evolutionism or, more particularly, in his belief that we humans are absolutely and completely a product of evolution. For this reason, Huxley argued that evolution is important in our understanding of morality: although he does not treat the matter in any great detail, he argues that the way in which morality functions is in some sense a product of or related to the way in which evolution functions. It is simply that one should not automatically assume that the ways of evolution are the ways of morality. To make this leap is to jump a gap for one which has no justification.

Julian Huxley

We leave the nineteenth century with evolution essentially playing the role of a secular religion and, as in the tradition of the best religions, giving all sorts of moral directives. But even among ardent evolutionists, not everyone was a true believer. Some were uncomfortable with making this the primary role of evolutionary studies, and as we enter the twentieth century we find that the discomfort level rises significantly. Partly this was a function of a general decline in enthusiasm for Spencer, particularly in Britain. Many of his supposed scientific speculations were shown to be hollow and without foundation: notably, Lamarckism, the inheritance of acquired characteristics, came under very heavy fire at the end of the nineteenth century. At the same time there was considerable doubt as to whether the kind of social speculation in which Spencer and his followers indulged was truly a legitimate form of argumentation. Famous is the devastating critique of Spencer by the English philosopher G. E. Moore, in his celebrated *Principia Ethica* (1903): picking up on points that David Hume (1978) had made, Moore argued that Spencer improperly drew conclusions about moral prescriptions from descriptions of matters of fact. Spencer committed what Moore was to label the "naturalistic fallacy": one cannot go to morality, argued Moore, from descriptions or claims about the purely natural.

But, powerful as these counterarguments may have been, one should not think that this led to an end to evolutionary speculations or even to a reluctance to cast evolution as an ideology or secular religion. There were still those keen to see it in this role—paradoxically, none more so than Thomas Henry Huxley's biologist grandson, Julian Sorell Huxley. Throughout his long life, Julian Huxley argued vigorously not only that Christianity is dead but that one must find some secular alternative or substitute and that evolution stands ready to fill this role. One can thus have, as he claimed in the title of one of his most well-known books, a *Religion Without Revelation* (1927). I do not imply that time stood still or that there was no change whatsoever down through the years. Scientifically, Julian Huxley was very much a man of the twentieth century. He accepted fully the key evolutionary advance of this century, the finding and development and incorporation into selection studies of the new theory of "Mendelian genetics." Indeed, Julian Huxley was a leader in promoting the Darwin/Mendel synthesis or so-called Neo-Darwinism. Huxley's most famous book, *Evolution: The Modern Synthesis* (1942), was explicitly intended to articulate and promote the new evolutionism.

Yet, for all the new science, the underlying message was the same: Julian Huxley was as ardent a progressionist as Herbert Spencer before him, and Erasmus Darwin before him. He argued that the evidence of evolution is of an upward rise and that this ended eventually in humankind. Very influential on Huxley in this respect was the French philosopher Henri Bergson, whose *Creative Evolution* (1911) Huxley had read as a young man, and from whose progressionist doctrines he never wavered. (Huxley had probably also read Spencer, and it is likely that there was influence here.) From evolution as progress, Huxley then moved readily and easily to moral directives. It was his claim that we must promote an evolutionary perspective, else we shall be failing in our ethical duty. In particular, believing strongly that natural selection acts best at the level of the group benefit rather than that of individual benefit, we find Huxley promoting directives or norms that he believed would be of ultimate benefit to all humankind. In the 1930s he was a keen eugenicist as well as a strong believer in central planning. Early in the Second World War he wrote an enthusiastic monograph on the Tennessee Valley Authority (Huxley 1943). Then, most famously and notoriously, after the war Huxley argued that the newly founded United Nations ought to be used as a body for world peace and the ultimate evolutionary triumph of humankind. Huxley put his beliefs into action, becoming the first secretary of the cultural arm of the United Nations, UNESCO. Indeed, it was Huxley who insisted on the *S* in UNESCO, for he argued that science is an important part of the potential for human progressive success (Huxley 1948). In fact, so ardently did Huxley promote these views that his critics took the opportunity to deny him a full term as head of the new organization!

A man with such strong convictions had many other critics, particularly in the philosophical world. The Cambridge philosopher and student of Moore, C. D. Broad (1949), wrote a devastating critique of Huxley's attempts to derive an evolutionary ethic from the nature and cause of evolution. Yet, Huxley had his supporters also, particularly in the biological community. There were many who shared his gut instinct, that evolution had to be pertinent somehow to a moral thinking. Moreover, many of these were happy to share Huxley's vision of evolution as a secular religion, even though they may not have particularly wanted to use that term. There were even those who went the full distance, wanting to make evolution a nonsecular religion, notably the French paleontologist Pierre Teilhard de Chardin (1955) and his American follower, the great evolutionary geneticist Theodosius Dobzhansky (1967).

One who stood and still stands very much in the Huxley tradition is the Harvard entomologist and sociobiologist Edward O. Wilson, who quite consciously structured his major work on social behavior on Huxley's thinking, even to the extent of echoing Huxley's own title in *Sociobiology: The New Synthesis* (1975). Going back ultimately to the ideas of Spencer, a thinker whom he much admires, Wilson argues that evolution is a progressivist rise upward from the primitive to the most complex and most sophisticated—an end point, which he finds represented by our own species. Likewise, he argues that evolution—which he speaks of explicitly as a myth or as a basis for a traditional religion substitute—must serve as a foundation for moral action, now that traditional religions have failed us (Wilson 1978; 1994). In particular, Wilson argues that we humans have evolved in symbiotic relationship with the rest of the living world and that without this world we would die literally. Humans could not exist in a purely plastic environment. Hence, Wilson argues that in order to preserve the human species—a directive which he takes as justified by the fact of evolution—we must promote not just life but biodiversity to its full extent. We humans do not stand alone, and unless we are careful the bell will toll for us. Indeed, in an almost dispensational fashion, undoubtedly representing the premillennial evangelicalism of his youth, Wilson argues that we have but a short time to repent, else ecological disaster will overtake us all.

George Gaylord Simpson

It is proven easy, too easy, to point to problems in the thinking of Julian Huxley and Edward O. Wilson and their fellow thinkers. I shall not repeat these here, for I have often done so elsewhere. Briefly, I agree with the critics: there is something wrong with attempts to bridge the gap between claims of fact and sentiments of morality. It just does not follow that because something is so, it is right and proper that it be so. Moreover, I

have often argued at length that I have problems with claims about progress—in the biological realm, that is. I just do not see that natural selection promotes excellence in any human sense. But this critical stance is not my purpose here. Rather, I want now to admit to a feeling of admiration and respect. The answers may be wrong, but the questions are correct. It must matter that we are grubby little primates, the product of years of blind evolution (Maienschein and Ruse 1999). Most philosophers in this century have been ignorant or contemptuous of this all-important fact, going about their business almost as though the world were created six thousand years ago by the miraculous intervention of a good God.

So here I ask: Can one pose the question but give a better answer? Has there been no one who shared the conviction of Julian Huxley and Edward O. Wilson that not only has evolution occurred but this phenomenon must be absolutely crucial in a full understanding of humankind, including an understanding of human morality? But at the same time, has there been no one with more philosophical sophistication than Julian Huxley and Edward O. Wilson able to step around the pitfalls into which they fall? Able to deal with Hume's is/ought barrier and Moore's naturalistic fallacy? Has there been no one in this century to compare to Thomas Henry Huxley?

One possible candidate is George Gaylord Simpson, the paleontologist, as it happens a very good friend of Julian Huxley. He shared Huxley's conviction that evolution was important (Simpson 1944). He was even, like Huxley and Wilson, a progressionist, although he was always careful to point out that evolutionary progressionism is something we read into the record, using it to interpret the record according to our own standards, rather than something that can be read simply from the record. Yet, he was ever uncomfortable about simplistic readings of moral norms straight from evolution.

It is true that some of the main differences between Huxley and Simpson lay at the substantive or normative level. Whereas Huxley the Englishman tended to favor state planning and mega projects, Simpson the American, particularly working and writing at the height of the Cold War, was highly suspicious of state-run systems, preferring rather to put the emphasis on the individual, particularly on the individual's right to free choice. Through this, and only through this, Simpson thought one could get a development of an intellectually vigorous society, the prerequisite for progress of all kinds, social and otherwise. But it would be a mistake to think that the only or even the most important differences between Huxley and Simpson lay at the normative level. Far more significant were the metaethical divisions between them—primarily the fact that, as one who felt that progress is read into the record rather than out, Simpson had immediately cut himself off from the main metaethical support that Huxley (and all those in the same tradition as he) relied on most crucially and

vitally for their normative directions. For Simpson, evolution can give us no foundation of this kind.

So, what is the alternative? To be candid, Simpson (as Thomas Henry Huxley before him) was not altogether helpful or clear on where we go from here. At times, he suggested that there can be no foundations at all. "The evolutionary process in itself is nonethical—there simply is no point in considering whether it is good, bad, a mixture of the two, or neither" (Simpson 1964, 143). At other times, Simpson suggested that the foundations are what we ourselves make of them. Indeed, Simpson sounded almost like an existentialist in his thinking. Could it not be that the very fact of responsibility, of the need to make a choice in one's own right, is in some way self-validating? Ethics are certainly relative to the material and social situation in which one finds oneself. Could it not be that they are relative also to the individual (the evolved individual, that is)?

> It should, finally, again be emphasized that these ethical standards are relative, not absolute. They are relative to man as he now exists on the earth. They are based on man's place in nature, his evolution, and the evolution of life, but they do not arise automatically from these facts or stand as an inevitable and eternal guide for human—or any other—existence. Part of their basis is man's power of choice and they, too, are subject to choice, to selection or rejection in accordance with their own principles. They are also subject to future change as man evolves; after all, if mankind does pursue the ethic of knowledge it should be able progressively to improve and refine any ethical system based on knowledge.
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> There is no ethical absolute that does not arise from error and illusion. These relativistic ethics have, at least, the merit of being honestly derived from what seems to be demonstrably true and clear. (Simpson 1964, 324)

It is clear that in real life Simpson had little empathy for the relativism toward which this kind of approach seems to lead. During the Second World War, although well over the age of necessity, he had volunteered and participated in particularly unpleasant military service. Later in life, Simpson was outspoken in his moral disgust at America's involvement in Vietnam. There was not much of the relativistic here.

Simpson's heart was in the right place, but for once his head was not terribly helpful. Most of the time, when thinking about foundations, he retreated into the truth (but in the circumstances, not terribly helpful truth) that because the moral capacities evolved they simply have to be important and evolution has to be significant. In other words, although Simpson was one of those who took evolutionary theory as science into the twentieth century—his great work *Tempo and Mode in Evolution* (1944) showed how implications from modern genetics can be insightful even in problems of paleontology—he took us little beyond Thomas Henry Huxley when it came to ethics: evolution had to be important toward our understanding of morality; it had certainly been that which had shaped our morality and given us our moral facilities; and one ought not to look to evolution for justification, that is, for metaethical support. But then, what is the place

to look for justification, for metaethical support? While we can turn to Simpson to support the conviction that neo-Spencerianism is not the way forward, we are still ourselves groping for the exact route.

Evolutionary Ethics Today

In fact, readers of my work know full well that I think that such a (metaethical) route has been found. I believe that one should go the way of so-called ethical scepticism (Ruse 1986a; 1986b). There are no foundations to morality. It is just a sentiment or a feeling, as was argued by David Hume and more recently by the noncognitivists (most famously, the emotivists). Morality is something that has been put in place by evolution to make us work efficiently as social animals; without morality, there would be chaos. I argue in addition, however, that although morality is in this sense subjective, our biology makes us think that it is objective; if it did not, we would start to cheat, and once again everything would break down, and chaos and anarchy would rule. In this sense, as I have said many times, morality is a collective illusion of human beings, put in place by our genes, to make us efficient social animals.

I am simply stating this position here and now and not attempting to prove it. I would point out, however, that whatever else, it has the virtue of being genuinely evolutionary and yet does not commit the fallacies of traditional—Spencer-, Julian Huxley-, E. O. Wilson-type—evolutionary ethics, because no attempt is made to justify and hence to jump or put a bridge across the is/ought distinction. To continue the metaphor, the attempt is to do an end run around the distinction. Moreover, I strongly resist suggestions that this approach to ethics is relativistic or any such thing—if humans did not share the same morality, then it simply would not work. It is like other social adaptations, language for instance. No matter how well I may speak and how perfect my accent, if no one can follow me, then it has failed in its essential function. Lexicographers and other guardians of language know that you can prescribe language only so far; after that, you must go with what there is and rest content with description.

Although I am not proving anything now, or even explaining my position in full, I am sure you can see why it is that I take comfort from my historical investigations as I have been presenting them to you in this paper. And because this was the purpose of this discussion, let me conclude by recapping the main findings. First, obviously, evolutionary ethics is not some newfound phenomenon or movement but rather something with a long history. In fact, it has been around as long as the existence of evolutionary theorizing itself (Bradie 1994; Farber 1994). Second, in the eyes of many, evolution—and this includes the ethical norms they would derive from it—has functioned as very much more than a scientific theory. It

has been what I have deliberately characterized a "secular religion." Third, connected with the second point, as in regular religions there has been much variation in the particular normative claims made in the name of the central creed. The common criticism of evolutionary ethicizing (often called "social Darwinism") is simply not well taken. It is generally assumed that all thinking of this kind commits one to fairly conservative, if not outrightly fascist, socioeconomic doctrines, starting with laissez-faire economics and all too frequently ending in racism of one kind or another. But this is just not true. Through the history of evolution, one can certainly find that there have been those who have supported right-wing or libertarian views in the name of evolution. But equally there have been those who have promoted left-wing and socialistic views in the name of evolution. Just as one should be wary of condemning Christianity for the various doctrines that its devotees have derived from it, so likewise one should be wary of criticizing evolution for the various doctrines that its devotees have derived from it. Like all secular religions, there is a wide range of options available, and one should hesitate before saying that one and only one is the true way to proper moral action.

This third point, about the diversity of opinions that have been promoted in the name of evolution, certainly makes the whole enterprise of evolutionary ethics seem more attractive than tradition would have it. One is not at once committed to social views that are repugnant to any decent human being. But do remember that the very diversity reinforces the second point, about the secular religious nature of much evolutionary thought. I do not say that this is necessarily a bad thing, but it is certainly something to be recognized. Moreover, those of us who have found traditional religions unsatisfactory for one reason or another might want to ask ourselves, Do we want to substitute another religion, even a secular one, for the religion we may have relinquished? And if not, is there nevertheless some way in which we can still take full advantage of and pay full attention to the fact that we humans are the product of an evolutionary process?

This brings me to the fourth point from history. We have learned that the major justificatory foundation for the whole ideology of evolution as religion has lain in the progressive course evolution is supposed to have taken, which takes us from the simple to the complex, from the homogenous to the heterogeneous, from (as was frequently said in the nineteenth century) the monad to the man. I am not now going to speak directly to the truth of this matter. It is enough for me here to have shown how significant and important is the belief in progressionism. I have noted that I myself am not an enthusiast for biological progress, a sentiment shared with many other of today's evolutionists, notably the popular science writer Stephen Jay Gould (1989; 1996), who has argued in many publications that there is little or no reason to think that evolution is progressive or that it leads in any kind of direction up to our own species. In the opinion of

people like us, the mechanisms of evolution (notably natural selection) are relativistic, implying no direction at all, and this is confirmed when one looks at the history of life. For us, therefore, the whole metaethical foundation of traditional evolutionary ethics collapses under its rotten core. I do not pretend that ours is a unanimous opinion. Obviously, someone like Wilson not only believes in progress but believes that it can be justified and has written extensively on this matter. Likewise, ultra-Darwinians like Richard Dawkins, who has written eloquently that progress is something that is brought about through a notion that he calls "the evolution of evolvability," argue that the processes of evolution get ever more powerful and fixed in a kind of ratchet process and that this has led ultimately to humans (Dawkins 1986; 1997; Dawkins and Krebs 1979). And conversely and somewhat paradoxically, those who are trying to break from Darwinism in some sense and to provide other evolutionary processes, including Stuart Kauffman (1993) of the Santa Fe Institute, argue that there are natural processes leading to increased complexification in nature and that ultimately this spells evolutionary progress.

But my point here is not so much to argue for one position or the other. It is rather to note how strongly our historical survey shows the importance of progressionism in the traditional evolutionary approach to ethics. And this leads me to my fifth and final point to be drawn from history. Suppose one is indeed uncomfortable with biological progressionism and that perhaps in addition one would prefer not to have to regard evolution as a religion, secular or otherwise. Is there then no alternative? Our history hardly shows us a well-articulated alternative. However, there is a tradition—Thomas Henry Huxley and George Gaylord Simpson being prominent representatives—that argues that evolution is important, that the ethical faculty has evolved as part of the evolutionary process, and that this must necessarily inform our thinking on ethics, but that one should not look to evolution for justification. It is this tradition that ethical skeptics like myself—and remember the link back to David Hume, whom we count as our founding father—want to pick up and claim as our own. Consider the following passage by the legal philosopher Jeffrie Murphy:

> The [evolutionist] may well agree . . . that value judgments are properly defended in terms of other value judgments until we reach some that are fundamental. All of this, in a sense, is the giving of *reasons*. However, suppose we seriously raise the question of why these fundamental judgments are regarded as fundamental. There may be only a *causal* explanation for this! We reject simplistic utilitarianism because it entails consequences that are morally *counterintuitive*, or we embrace a Rawlsian theory of justice because it systematizes (places in "reflective equilibrium") our *pretheoretical convictions*. But what is the status of those intuitions or convictions? Perhaps there is nothing more to be said for them than that they involve deep *preferences* (or patterns of preference) built into our biological nature. If this is so, then at a very fundamental point the reasons/causes (and the belief we ought/really ought) distinction breaks down, or the one transforms into the other. (Murphy 1982, 112 n. 21)

This could have been written by Simpson—and perhaps might have been had the philosophical community not been so unwelcoming that he never turned to it for advice and inspiration. But this now starts to take me into historical fantasy land, so I will draw to a close. Others must judge whether the evolutionary ethics I am endorsing can properly claim the authority of the past or whether they are something altogether new. I will say that, if ethical skeptics like myself are not doing the job properly, this is no good reason to embrace at once the traditional position—the Erasmus Darwin to Edward O. Wilson position. I would argue that neo-Spencerianism has problems enough of its own even if its rivals fail. But again, this is for others to judge. My claim now is simply that our trip through history has surely yielded rich dividends and shows that one simply cannot think about evolutionary ethics today without glancing back to the evolutionary ethics of yesterday.

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