EVOLUTIONARY ETHICS: A PHOENIX ARISEN

by Michael Ruse

Abstract. Evolutionary ethics has a (deservedly) bad reputation. But we must not remain prisoners of our past. Recent advances in Darwinian evolutionary biology pave the way for a linking of science and morality, at once more modest yet more profound than earlier excursions in this direction. There is no need to repudiate the insights of the great philosophers of the past, particularly David Hume. So humans' simian origins really matter. The question is not whether evolution is to be linked to ethics, but how.

We humans are modified monkeys, not the favored creation of a benevolent God, on the sixth day. The time has therefore come to face squarely our animal nature, particularly as we interact with others. Admittedly, so-called evolutionary ethics has a bad reputation. However, the question is not whether evolution is connected with ethics, but how. Fortunately, thanks to recent developments in biological science, the way is now becoming clear.

I begin this discussion with a brief historical introduction to the topic. Then I move to the core of my scientific and philosophical case. I conclude by taking up some central objections.

Social Darwinism

In 1859 Charles Darwin published his *On the Origin of Species by Means of Natural Selection*. In that work he argues that all organisms (including ourselves) came through a slow, natural process of evolution. Also, Darwin suggested a mechanism: more organisms are born than can survive and reproduce; this leads to competition; the winners are thus "naturally selected," and hence change ensues in the direction of increased "adaptiveness." It is hardly true that Darwin, or even science generally, brought about the death of Christianity; but after the *Origin*

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increasing numbers turned from the Bible towards evolution, in some form, for moral insight and guidance (Ruse 1979a; Russett 1976). The product was generally known as social Darwinism, the traditional form of evolutionary ethics—although, as many have noted, despite its name, it owed its genesis more to that general man of Victorian science, Herbert Spencer, than to Darwin himself (Russett 1976).

A full moral system needs two parts. On the one hand, you must have the "substantival" or "normative" ethical component. Here, you offer actual guidance as in, "Thou shalt not kill." On the other hand, you must have (what is known formally as) the "metaethical" dimension. Here, you are offering foundations or justification as in, "That which you should do is that which God wills." Without these two parts, your system is incomplete (Taylor 1978).

To the social Darwinians, the metaethical foundations they sought lay readily at hand. They exist in the perceived nature of the evolutionary process. Supposedly, we have a progression from simple to complex, from amoeba to man, from (as Spencer happily pointed out) savage to Englishman (Spencer 1852; 1857). This progress is a good thing and conveys immediate worth. We need no further justification of what ought to be. And now, at once, we have the substantival directives of our system. Morally, we should aid and promote—and not hinder—the evolutionary process. Furthermore, if, as was supposedly claimed by Darwin and certainly echoed by Spencer, the evolutionary process begins with a bloody struggle for existence and concludes with the triumph of the fittest, then so be it. Our obligation is to prize the strong and successful and to let the weakest go to the wall (Ruse 1985).

Of course, as many pointed out—most splendidly Darwin's great supporter and ardent co-evolutionist, Thomas Henry Huxley (1901)—none of this will do. Metaethically speaking, evolution simply is not progressive (Williams 1966). Apart from anything else, it branches all over the place, making it quite impossible to offer true assessments of top and bottom, higher and lower, better and worse. Among today's organisms, venereal disease thrives, whereas the great apes stand near extinction. Is gonorrhea really superior to the chimpanzee? And, following up the metaethical inadequacies, at the substantival level, if anything is false, social Darwinism is false. Morality does not consist in walking over the weak and the sick, the very young and the very old. Someone who tells you otherwise is an ethical cretin.

Social Darwinism (and, so many concluded, any kind of evolutionary ethics) is wrong—not just mistaken but fundamentally misguided. Why? The answer was pinpointed by such philosophers as David Hume (in the eighteenth century) and G. E. Moore (in the twentieth century). Hume (1978) noted that you simply cannot go straight from

talk of facts (like evolution) to talk of morals and obligations, from "is" language to "ought" language.

> In every system of morality, which I have hitherto met with, I have always remark'd, that the author proceeds for some time in the ordinary way of reasoning, and establishes the being of a God, or makes observations concerning human affairs, when of a sudden I am surpriz'd to find, that instead of the usual copulations of propositions, is, and is not, I meet with no proposition that is not connected with an ought, or an ought not. This change is imperceptible; but is, however, of the last consequence. For as this ought, or ought not, expresses some new relation or affirmation, 'tis necessary that it shou'd be observ'd and explain'd; and at the same time that a reason should be given, for what seems altogether inconceivable, how this new relation can be a deduction from others, which are entirely different from it (Hume 1978, 469).

Then, in 1903, Moore backed up this point, in his *Principia Ethica*, arguing that all who would derive morality from the physical world stand convicted of the "naturalistic fallacy." Explicitly Moore noted that the evolutionary ethicizer is a major offender, as he goes from talk of the facts and process of evolution to talk of what one ought (or ought not) do.

At all levels, therefore, traditional evolutionary ethics ground to a complete stop. It promoted a grotesque distortion of true morality and could do so only because its foundations were rotten (Flew 1967). So matters have rested for three-quarters of a century. Now, however, the time has come for the case to be reopened. Let us see why.

The Evolution of Morality

We must begin with the science, most particularly with the evolution of the human moral sense or capacity. In fact, as Darwin pointed out, contrary to the Spencerian interpretations of the evolutionary process, although the process may start with competition for limited resources—a struggle for existence (more strictly, struggle for reproduction)—this certainly does not imply that there will always be fierce and ongoing hand-to-hand combat. Between members of the same species most particularly, much more personal benefit can frequently be achieved through a process of cooperation—a kind of enlightened self-interest, as it were (Darwin 1859; 1871). Thus, for instance, if my conspecific and I battle until one is totally vanquished, no one really gains, for even the winner will probably be so beaten and exhausted that future tasks will overwhelm. Whereas, if we cooperate, although we must share the booty, there will be no losers and both will benefit (Trivers 1971; Wilson 1975; Dawkins 1976; Ruse 1979b).

All such cooperation for personal evolutionary gain is known technically as "altruism." I emphasize that this term is rooted in metaphor, even though now it has the just-given formal biological meaning.

There is no implication that evolutionary "altruism" (working together for biological payoff) is inevitably associated with moral altruism (where this is the original literal sense, implying a conscious being helping others because it is right and proper to do so). The connection is no more than that between the physicist's notion of "work" and what you and I do in the yard on Saturday afternoons when we mow the grass.

However, just as mowing the lawn does involve work in the physicist's sense, so also today's students of the evolution of social behavior ("sociobiologists") argue that moral (literal) altruism might be one way in which biological (metaphorical) "altruism" could be achieved (Wilson 1978; Ruse & Wilson 1986). Furthermore, they argue that in humans, and perhaps also in the great apes, such a possibility is a reality. Literal, moral altruism is a major way in which advantageous biological cooperation is achieved. Humans are the kinds of animals which benefit biologically from cooperation within their groups, and literal, moral altruism is the way in which we achieve that end (Lovejoy 1981).

There was no inevitability in altruistic inclinations having developed as one of the human adaptations. Judging from what we know of ourselves and other animals, there were a number of other ways in which biological "altruism" might have been effected (Lumsden & Wilson 1983). Most obviously, humans could have gone the route of the ants. They are highly social, having taken "altruism" to its highest pitch through what one might call "genetic hardwiring." Ants are machine-like, working in their nests according to innate dispositions, triggered by chemicals (pheromones) and the like (Wilson 1971).

There are great biological advantages to this kind of functioning: it eliminates the need for learning, it cuts down on the mistakes, and much more. Unfortunately, however, this is all bought at the expense of any kind of flexibility. If circumstances change, individual ants cannot respond. This does not matter so much in the case of ants, since (biologically speaking) they are cheap to produce. Regretfully, humans require significant biological investment, and so apparently the production of "altruism" through innate, unalterable forces, poses too much of a risk.

Since the ant option is closed, we humans might theoretically have achieved "altruism" by going right to the other extreme. We might have evolved superbrains, rationally calculating at each point if a certain course of action is in our best interests. "Should I help you prepare for a difficult test? What's in it for me? Will you pay me? Do I need help in return? Or what?" Here, there is simply a disinterested calculation of personal benefits. However, we have clearly not evolved this way. Apart from anything else, such a superbrain would itself have high biological cost and might not be that efficient. By the time I have

decided whether or not to save the child from the speeding bus, the dreadful event has occurred (Lumsden & Wilson 1981; Ruse & Wilson 1986).

It would seem, therefore, that human evolution has been driven towards a middle-of-the-road position. In order to achieve "altruism," we are altruistic! To make us cooperate for our biological ends, evolution has filled us full of thoughts about right and wrong, the need to help our fellows, and so forth. We are obviously not totally selfless. Indeed, thanks to the struggle for reproduction, our normal disposition is to look after ourselves. However, it is in our biological interests to cooperate. Thus we have evolved innate mental dispositions (what the sociobiologists Charles Lumsden and Edward O. Wilson call "epigenetic rules") inclining us to cooperate, in the name of this thing which we call morality (Lumsden & Wilson 1981). We have no choice about the morality of which we are aware. But, unlike the ants, we can certainly choose whether or not to obey the dictates of our conscience. We are not blindly locked into our courses of action like robots. We are inclined to behave morally but not predestined to such a policy.

This, then, is the modern (Darwinian) biologist's case for the evolution of morality. Our moral sense, our altruistic nature, is an adaptation—a feature helping us in the struggle for existence and reproduction—no less than hands and eyes, teeth and feet. It is a cost-effective way of getting us to cooperate, which avoids both the pitfalls of blind action and the expense of a superbrain of pure rationality.

Substantive Ethics

But what has any of this to do with the questions that philosophers find pressing and interesting? Let us grant the scientific case sketched in the last section. What now of substantival ethics, and most particularly what of metaethics? If we think that what has just been said has any relevance to foundations, then surely we violate Hume's law and smash into the naturalistic fallacy, no less than does the Spencerian.

Turning first to the moral norms endorsed by the modern evolutionist, there is little to haunt us from the past. As we have just seen, the whole point of today's approach is that we transcend a rugged struggle for existence—in thought and deed. Of course, humans are selfish and violent at times. This has been admitted. But, no less than the moralist, the evolutionist denies that this darker side to human beings has anything to do with moral urges. What excites the evolutionist is the fact that we have feelings of moral obligation laid over our brute biological nature, inclining us to be decent for altruistic reasons.

What is the actual content (speaking substantivally) of a modern evolutionary ethic? At this point we turn to philosophers for guidance! After all, these are the people whose intent it is to uncover the basic rules which govern our ethical lives. The evolutionist may modify or even reject the philosophers' claims; but, given the central (empirical) hypothesis that normal, regular morality is that which our biology uses to promote "altruism," the presumption must be that the findings of the philosophers will tell much.

In fact, there is little need for apprehension. Claims of some of today's leading thinkers sound almost as if they were prepared expressly to fill the evolutionist's bills—a point which these thinkers themselves have acknowledged. In particular, let me draw your attention to the ideas of John Rawls, whose *A Theory of Justice* deservedly holds its place as the major work in moral philosophy of the last decade. Rawls writes:

> The guiding idea is that the principles of justice for the basic structure of society are... the principles that free and rational persons concerned to further their own interests would accept in an initial position of equality as defining the fundamental terms of their association. These principles are to regulate all further agreements; they specify the kinds of social cooperation that can be entered into and the forms of government that can be established. This way of regarding the principles of justice I shall call justice as fairness (Rawls 1971, 11).

How exactly does one spell out these principles that would be adopted by "free and rational persons concerned to further their own interests"? Here, Rawls invites us to put ourselves behind a "veil of ignorance," as it were. If we knew that we were going to be born into a society and that we would be healthy, handsome, wise, and rich, we would opt for a system which favors the fortunate. But we might be sick, ugly, stupid, and poor. Thus, in our ignorance, we will opt for a just society, governed by rules that would best benefit us no matter what state or post we might have in that society.

Rawls argues that, under these conditions, a just society is seen to be one which, first, maximizes liberty and freedom, and, second, distributes society's rewards so that everyone benefits as much as possible. Rawls is not arguing for some kind of communistic, totally equal distribution of goods. Rather, the distribution must help the unfortunate as well as the fortunate. If you could show that the only way to get statewide, good quality medical care is by paying doctors twice as much as anyone else, then so be it.

I need hardly say how readily all of this meshes with the evolutionary approach. For both the biologist and the Rawlsian, the question is that of how one might obtain right action from groups of people whose

natural inclination is (or rather, of whom one would expect the natural inclination to be) that of looking after themselves. In both cases the answer is found in a form of enlightened self-interest. We behave morally because, ultimately, there is more in it for us than if we do not.

Where the evolutionist picks up and goes beyond the Rawlsian is in linking the principles of justice to our biological past, via the epigenetic rules. This is a great bonus, for Rawls himself admits that his own analysis is restricted to the conceptual level. He leaves unanswered major questions about origins. "In justice as fairness the original position of equality corresponds to the state of nature in the traditional theory of the social contract. This original position is not, of course, thought of as an actual historical state of affairs, much less as a primitive condition of culture. It is understood as a purely hypothetical situation characterized so as to lead to a certain conception of justice" (Rawls 1971, 12).

This is all very well. But, "purely hypothetical situations" are hardly satisfying. Interestingly, as hinted above, Rawls himself suggests that biology might be important. "In arguing for the greater stability of the principles of justice I have assumed that certain psychological laws are true, or approximately so. I shall not pursue the question of stability beyond this point. We may note however that one might ask how it is that human beings have acquired a nature described by these psychological principles. The theory of evolution would suggest that it is the outcome of natural selection; the capacity for a sense of justice and the moral feelings is an adaptation of mankind to its place in nature" (Rawls 1971, 502-3). This is precisely the evolutionist's approach. There is no need to suppose hypothetical contracts. Natural selection made us as we are.

Foundations—Metaethics

I expect that many traditional philosophers will feel able to go this far with the evolutionist. But now the barriers will come up. The argument will run like this: The evolution of ethics has nothing to do with the status of ethics. I may be kind to others because my biology tells me to be kind to others and because those protohumans who were not kind to others failed to survive and reproduce. But is it right that I be kind to others? Do I really, objectively, truly have moral obligations? To suppose that the story of origins tells of truth or falsity is to confuse causes with reasons. In a Spencerian fashion, it is to jumble the way things came about with the way things really are.[1] Since Rawls has been quoted as an authority, let us recall what he says at the end of his speculations on the evolution of morality: "These remarks are not intended as justifying reasons for the contract view" (Rawls 1971, 504).

This is a powerful response, but today's evolutionary ethicist argues that it misses entirely the full force of what biology tells us. It is indeed true that you cannot *deduce* moral claims from factual claims (about origins). However, using factual claims about origins, you can give moral claims the only foundational *explanation* that they might possibly have. In particular, the evolutionist argues that, thanks to our science, we see that claims like "You ought to maximize personal liberty" are no more than subjective expressions, impressed upon our thinking because of their adaptive value. In other words, we see that morality has no philosophically objective foundation. It is just an illusion, fobbed off on us to promote biological "altruism."

This is a strong claim, so let us understand it fully. The evolutionist is no longer attempting to derive morality from factual foundations. His/her claim now is that there are no foundations of any sort from which to derive morality—be these foundations evolution, God's will, or whatever. Since, clearly, ethics is not nonexistent, the evolutionist locates our moral feelings simply in the subjective nature of human psychology. At this level, morality has no more (and no less) status than that of the terror we feel at the unknown—another emotion which undoubtedly has good biological adaptive value.

Consider an analogy. During the First World War, many bereaved parents turned to spiritualism for solace. Down the Ouija board would come the messages: "It's alright Mum. I've gone to a far better place. I'm just waiting for you and Dad." I take it that these were not in fact the words of the late Private Higgins, speaking from beyond. Rather they were illusory—a function of people's psychology as they projected their wishes. (We can, I think, discount universal fraud.)

The moral to be drawn from this little story is that we do not need any further justificatory foundation for "It's alright Mum" than that just given. At this point, we do not need a reasoned underpinning to the words of reassurance. ("Why is it alright?" "Because I'm sitting on a cloud, dressed in a bedsheet, playing a harp.") What we need is a causal explanation of why the bereaved "heard" what they did. The evolutionist's case is that something similar is very true of ethics. Ultimately, there is no reasoned justification for ethics in the sense of foundations to which one can appeal in reasoned argument. All one can offer is a causal argument to show why we hold ethical beliefs. But once such an argument is offered, we can see that this is all that is needed.

In a sense, therefore, the evolutionist's case is that ethics is a collective illusion of the human race, fashioned and maintained by natural selection in order to promote individual reproduction. Yet, more must be said than this. Obviously, "Stamping on small children is wrong," is not really illusory like "It's alright Mum, I'm okay!" However, we can easily

show why the analogy breaks down at this point. Morality is a shared belief (or set of beliefs) of the human race, unlike the messages down the Ouija board. Thus, we can distinguish between "Love little children," which is certainly not what we would normally call illusory, and "Be kind to cabbages on Fridays," which certainly is what we would normally call illusory. We all (or nearly all) believe the former but not the latter.

Perhaps we can more accurately express the evolutionist's thesis by drawing back from a flat assertion that ethics is illusory. What is really important to the evolutionist's case is the claim that ethics is illusory inasmuch as it persuades us that it has an objective reference. This is the crux of the biological position. Once it is grasped everything falls into place.

This concession about the illusory status of ethics in no way weakens the evolutionist's case. Far from it! If you think about it, you will see that the very essence of an ethical claim, like "Love little children," is that, whatever its true status may be, we think it binding upon us *because we think it has an objective status*. "Love little children" is not like "My favorite vegetable is spinach." The latter is just a matter of subjective preference. If you do not like spinach, then nothing ensues. But we do not take the former (moral) claim to be just a matter of preference. It is regarded as objectively binding upon us—whether we take the ultimate source of this objectivity to be God's will, or (if we are Platonists) intuited relations between the forms, or (like G. E. Moore) apprehension of nonnatural properties, or whatever.

The evolutionist's claim, consequently, is that morality is subjective—it is all a question of human feelings or sentiments—but he/she admits that we "objectify" morality, to use an ugly but descriptive term. We think morality has objective reference even though it does not. Because of this, a causal analysis of the type offered by the evolutionist is appropriate and adequate, whereas a justification of moral claims in terms of reasoned foundations is neither needed nor appropriate.

Furthermore, completing the case, the evolutionist points out that there are good (biological) reasons why it is part of our nature to objectify morality. If we did not regard it as binding, we would ignore it. It is precisely because we think that morality is more than mere subjective desires, that we are led to obey it.[2]

Reciprocation

This completes the modern-day case for evolutionary ethics. A host of questions will be raised. I will concentrate on two of the more important. First, let us turn to a substantival question.

Many of the queries at this level will be based on misunderstandings of the evolutionist's position. For instance, although the evolutionist is subjectivist about ethics, this does not in any sense imply that he/she is a relativist—especially not a cultural relativist. The whole point about the evolutionary approach to ethics is that morality does not work unless we are all in the game (with perhaps one or two cheaters—so-called criminals or sociopaths). Moreover, we have to believe in morality; otherwise it will not work. Hence, the evolutionist looks for shared moral insights, and cultural variations are dismissed as mere fluctuations due to contingent impinging factors.

Analogously, there is no question of simply breaking from morality if we so wish. Even though we have insight into our biological nature, it is still *our* biological nature. We can certainly do immoral things. We do them all the time. But, a policy of persistently and consistently breaking the rules can only lead to internal tensions. Plato had a good point in the *Republic* when he argued that only the truly good person is the truly happy person, and the truly happy person is the one whose parts of the personality ("soul") function harmoniously together.

A much more significant question, on which I will focus, concerns the question of reciprocation. No one should be misled into thinking that the evolutionist proclaims the virtues (moral or otherwise) of selfishness or that the evolutionist's position imples that, as a matter of contingent fact, we are totally selfish. It has been admitted that human beings have a tendency towards selfishness; but, you did not need an evolutionist to tell you that. What is surprising is that we are not totally selfish. Humans have genuinely altruistic feelings towards their fellows. The fact that, according to the evolutionist, we are brought to literal, moral altruism by our genes acting in our biological self-interests says nothing against the genuineness of our feelings. Would you doubt the goodness of Mother Theresa's heart, were you told that she was strictly disciplined as a child?

Nevertheless, while this is indeed all true, a nagging doubt remains. Let us look for a moment at the actual causal models proposed by sociobiologists in order to explain the evolution of altruism. First, it is suggested that *kin selection* is important. Relatives share copies of the same genes. Hence, inasmuch as a relative reproduces, you yourself reproduce vicariously, as it were. Therefore, help given to relatives leading to survival and reproduction rebounds to your own benefit. Second, there is *reciprocal altruism*. Simply, if I help you (even though you be no relative), then you are more likely to help me—and conversely. We both gain together, whereas apart we both lose.[3]

Now, surely, with both of these mechanisms, the possibility of genuine altruism seems precluded. With kin selection, the rewards

come through your relatives' reproduction, so there is no need for crude overt returns. But, would not mere nonmoral love do all that is needed? I love my children, and I help them not because it is right but because I love them. As Immanuel Kant (1959) rightly points out, unless you are actually heeding the call of duty, there is no moral credit. A mother happily suckling her baby is not performing a moral act.

In the case of reciprocal altruism, the problems for the evolutionary ethicist are even more obvious. You do something in hope of return. This is not genuine altruism but a straight bargain. There is nothing immoral in such a transaction. If I pay cash for a kilo of potatoes, there is no wrongdoing. But there is nothing moral in such a transaction, either. Morality means going out on a limb, because it is right to do so. Morality vanishes if you hope for payment.

The evolutionist has answers to these lines of criticism—answers which strengthen the overall position. First, it is indeed true that much we do for our family stems from love, without thought of duty. But, only the childless would think moral obligations never enter into intrafamilial relations. Time and again we have to drive ourselves on, and we do it because it is right. Without the concepts of right and wrong, we would be much less successful parents (uncles, aunts, etc.) than we are. Humans require so much child care that they make the case for a biological backing to morality particularly compelling. If parental duties were left to feelings of kindliness, the system would break down. (I am sure there has been a feedback causal process at work here. Because we have a moral capacity, child care could be extended; and extensive child care needs set up selective pressure towards increased moral awareness.)

Second, it is agreed that reciprocal altruism would fail if there were no returns—or ways of enforcing returns. However, it is not necessary to suppose that such reciprocation requires a crude demand of returns for favors granted. Apart from anything else, morality is clearly more like a group insurance policy than a person-to-person transaction. I help you, but do not necessarily expect you personally to help me. Rather, my help is thrown into the general pool, as it were, and then I am free to draw on help as needed.

Furthermore, enforcement of the system comes about through morality itself! I help you, and I can demand help in return, not because I have helped you or even because I want help, but because it is *right* that you help me. Reciprocation is kept in place by moral obligations. If you cease to play fair, then before long I and others will chastise you or take you out of the moral sphere. We do not do this because we do not like you but because you are a bad person or too "sick" to recognize the right way of doing things. Morality demands

that we give freely, but it does not expect us to make suckers of ourselves. (What about Jesus' demand that we forgive seven times seventy times? The moral person responds that forgiveness is one thing, but that complacently letting a bad act occur four-hundred and ninety times borders on the criminally irresponsible. We *ought* to put a stop to such an appalling state of affairs.[4])

Thus far there should be little in the evolutionist's approach to normative ethics, properly understood, which would spur controversy. But, let me conclude this section by pointing to one implication which will certainly cause debate. Many moralists argue that we have an equal obligation to all human beings, indifferently as to relationship acquaintance, nationality, or whatever (Singer 1972). In principle, my obligations to some unknown child in (say) Ethiopia are no less than to my own son. Nevertheless, although many (most?) would pay lip service to some such view as this, my suspicion is that, sincerely meant, this doctrine makes the evolutionist decidedly queasy. Biologically, our major concern has to be towards our own kin, then to those in at least some sort of relationship to us (not necessarily a blood relationship), and only finally to complete strangers. And, feelings of moral obligation have to mirror biology.

I speak tentatively now. You could argue that biology gives us an equal sense of obligation towards all and that this sense is then filtered across strong (nonmoral) feelings of warmth towards our own children, followed by diminishing sentiments towards nonrelatives, ending with a natural air of suspicion and indifference towards strangers. But my hunch is that the care we must bestow on our children is too vital to be left to chance, and therefore we expect to find, what we do in fact find, namely that our very senses of obligation vary. Therefore, whatever we may sometimes say, truly we have a stronger feeling of moral obligation towards some people than towards others.

It is perhaps a little odd to speak thus hesitantly about our own feelings, including moral feelings. You might think that one should be able to introspect and speak definitively. However, matters are not always quite this simple, particularly when (as now) we are faced with a case where our technology has outstripped our biology and our consequent morality. A hundred years ago it would have made little sense to talk of moral obligations to Ethiopians. Now we know about Ethiopians and, at least at some level, we can do something for them. But what should we do for them? Within the limits of our abilities, as much for each one as for each one of our own children? I suspect that most people would say not. I hasten to add that no evolutionist says we have no obligations to the world's starving poor. The question is whether we have a moral obligation to beggar our families and to send all to Oxfam.

In closing this section, let me at least note that, over this matter of varying obligations, the evolutionist takes no more stringent a line than does Rawls. Explicitly, Rawls treats close kin as a case meriting special attention, and as he himself admits it is far from obvious that his theory readily embraces relations with the Third World (Rawls 1980). It is not intuitively true that, even hypothetically, we were in an original position with the people of Africa—or India, or China. Hence, although the evolutionist certainly does not want to hide behind the cloth of the more conventional moral philosopher, he can take comfort from the fact that he is in good company.

Objectivity

We turn now to metaethical worries. The central claim of the evolutionist is that ethics is subjective, a matter of feelings or sentiment, without genuine objective referent. What distinguishes ethics from other feelings is our belief that ethics is objectively based, and it is because we think this that ethics works.

The most obvious and important objection to all of this is that the evolutionist has hardly yet really eliminated the putative objective foundation of morality. Of course, ethics is in some way subjective. How could it not be? It is a system of beliefs held by humans. But this does not in itself deny that there is something more. Consider, analogously, the case of perception. I see the apple. My sensations are subjective, and my organs of vision (eyes) came through the evolutionary process, for excellent biological reasons. Yet, no one would deny that the apple is independently, objectively real. Could not the same be true of ethics? Ultimately, ethics resides objectively in God's will, or some such thing. (Nozick [1981] pursues a line of argument akin to this.)

Let us grant the perception case although, parenthetically, I suspect the evolutionist might well have some questions about the existence of a real world beyond the knowing subject. The analogy with ethics still breaks down. Imagine two worlds, identical except that one has an objective ethics (whatever that might mean) and one does not. Perhaps, in one world God wants us to look after the sick, and in the other He could not care less what we do. The evolutionist argues that, in both situations, we would have evolved in such a way as to think that, morally, we ought to care for the sick. To suppose otherwise, to suppose that only the world of objective ethics has us caring about the sick, is to suppose that there are extrascientific forces at work, directing and guiding the course of evolution. And this is a supposition which is an anathema to the modern biologist (Ruse 1982).

In other words, in the light of what we know of evolutionary processes, the objective foundation has to be judged redundant. But, if anything is a contradiction in terms, it is a redundant objective morality: "The only reason for loving your neighbor is that God wants this, but you will think you ought to love your neighbor whether or not God wants it." In fact, if you take seriously the notion that humans are the product of natural selection, the situation is even worse than this. We are what we are because of contingent circumstances, not because we necessarily had to be as we are. Suppose, instead of evolving from savannah-living primates (which we did), we had come from cave dwellers. Our nature and our morality might have been very different. Or, take the termites (to go to an extreme example from a human perspective). They have to eat each other's feces, because they lose certain parasites, vital for digestion, when they molt. Had humans come along a similar trail, our highest ethical imperatives would have been very strange indeed.

What this all means is that, whatever objective morality may truly dictate, we might have evolved in such a way as to miss completely its real essence. We might have developed so that we think we should hate our neighbors, when really we should love them. Worse than this even, perhaps we really should be hating our neighbors, even though we think we should love them! Clearly, this possibility reduces objectivity in ethics to a mass of paradox.

But does it? Let us grant that the evolutionist has a good case against the person who would argue that the foundations of morality lie in sources external to us humans, be these sources God's will, the relations of Platonic forms, nonnatural properties, or whatever. However, there is at least one well-known attempt to achieve objectivity (of a kind) without the assumption of externality. I refer, of course, to the metaethical theorizing of Immanuel Kant (1949; 1959). He argued that the supreme principle of morality, the so-called categorical imperative, has a necessity quite transcending the contingency of human desires. It is synthetic *a priori*, where by this Kant meant that morality is a condition which comes into play, necessarily, when rational beings interact. He argued that a disregard of morality leads to "contradictions," that is to a breakdown in social functioning. Thus, we see that morality is not just subjective whim but has its being in the very essence of rational interaction. To counter an example offered above, we could not have evolved as pure haters, because such beings simply could not interact socially.

Since, more than once in this paper, the evolutionist has invoked the ideas of Rawls in his own support, a critic might reasonably point out that (having left matters dangling in *A Theory of Justice*), more recently

Rawls has tried explicitly to put morality on a Kantian foundation. At a general level he writes as follows: "What justifies a conception of justice is not its being true to an order antecedent to and given to us, but its congruence with our deeper understanding of ourselves and our aspirations, and our realization that, given our history and the traditions embedded in our public life, it is the most reasonable doctrine for us" (Rawls 1980, 519). Then, spelling matters out a little more, Rawls claims that: "[A] Kantian doctrine interprets the notion of objectivity in terms of a suitably constructed social point of view that is authoritative with respect to all individual and associational points of view. This rendering of objectivity implies that, rather than think of the principles of justice as true, it is better to say that they are the principles most reasonable for us, given our conception of persons as free and equal, and fully cooperating members of a democratic society" (Rawls 1980, 554). Thus, in some way we try to show both that morality is reasonable and that it is more than a matter of mere desire or taste, like a preference for vegetables.

Responding to the Kantian/Rawlsian, so-called constructivist position, the evolutionist will want to make two points. First, there is much in the position with which he/she heartily sympathizes! Both constructivist and evolutionist agree that morality must not be sought outside human beings, and yet both agree that there is more to morality than mere feelings. Additionally, both try to make their case by pointing out that morality is the most sensible strategy for an individual to pursue. Being nice pays dividends—although, as both constructivist and evolutionist point out, one behaves morally for good reasons, not because one is consciously aware of the benefits.

Second, for all of the sympathy, the evolutionist will feel compelled to pull back from the full conclusions of the constructivist position. The evolutionist argues that morality (as we know it) is the most sensible policy, as we humans are today. However, he/she draws back from the constructivist claim that (human-type) morality must be the optimal strategy for *any* rational being. What about our termite-humans, for instance? They might be perfectly rational. Possibly, the response will be that the termite-humans' sense of obligation to eat rather strange foodstuffs is covered by a prohibition against suicide, which Kant certainly thinks follows from the categorical imperative. Hence, the constructivist admits that one's distinctive (in our case, human) nature gives one's actual morality a correspondingly distinctive appearance; but he/she argues that underlying the differences is a shared morality. The principle is the same as when everyone (including the evolutionist) explains differences in cultural norms as due to special circumstances, not to diverse ultimate moral commitments (Taylor 1958).

Yet, the evolutionist continues the challenge. If the constructivist argues that the only thing which counts is rational beings working together and that their contingent nature is irrelevant, then it is difficult to see why morality necessarily emerges at all. Suppose that we had evolved into totally rational beings, like the above-mentioned superbrains, and that we calculated chances, risks, and benefits at all times. We would be neither moral not immoral, feeling no urges of obligation at all.

Obviously, we are not like this. Apparently, therefore, we must take account of a being's contingent nature—no matter how rational it may be—in order to get some kind of morality. But this is the thin end of the wedge for moralities other than human morality. Think, for instance, how we might patch up the society of pure haters so that a kind of morality could emerge—and this is a kind quite different from ours. Suppose that it is part of our nature to hate others, and that we think we have an obligation to hate others. A Kantian "contradiction," that is, breakdown in sociality, might still be avoided and cooperation achieved, because we know that others hate us and so we feel we had better work warily together to avoid their wrath. If this sounds farfetched, consider how today's supposed superpowers function. Everything would be perfectly rational and could work (after a fashion). Yet, there would be little that we humans would recognize as "moral" in any of this.

Of course, you might still point out that such a society of pure haters would end up with rules much akin to those that the constructivist endorses, about liberty and so forth. But these rules would not be *moral* in any sense. They would be, explicitly, rules of expediency, of self-interest. I give you liberty not because I care for you, or respect you, or think I ought to treat you as a worthwhile individual. I hate your guts! And, I think I *ought* to hate you. I give you liberty simply because it is in my consciously thought-out interests to do so. This may be a sensible prudent policy. It is not a moral policy.

The evolutionist concludes, against the constructivist, that our morality is a function of our actual human nature and that it cannot be divorced from the contingencies of our evolution. Morality, as we know it, cannot have the necessity or objectivity sought by the Kantian and Rawlsian.

Conclusion

Our biology is working hard to make the evolutionist's position seem implausible. We are convinced that morality really is objective, in some way. However, if we take modern biology seriously, we come to see how we are children of our past. We learn what the true situation really is.

Evolution and ethics are at last united in a profitable symbiosis, and this is done without committing all of the fallacies of the last century.

NOTES

1. Versions of this argument occur in Raphael (1958), Quinton (1966), Singer (1972), and—I blush to say it—Ruse (1979b).

2. See Murphy (1982) for more on the argument that a causal explanation might be all that can be offered for ethics, and Mackie (1977) for discussion of "objectification" in ethics.

3. These two mechanisms are discussed in detail in Ruse (1979b). They are related to human behavior, in some detail, in Wilson (1978).

4. This criticism assumes that the Christian is obligated to forgive endlessly, without response. Modern scholarship suggests that this is far from Jesus' true message. See Betz (1985) for more on this point, and Mackie (1978) for more on the sociobiologically inspired criticism that Christianity makes unreasonable demands on us. This latter line of argument obviously parallels that of Sigmund Freud in *Civilization and its Discontents* (1961).

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