Ulcers, Baseball, and the New Ethical Naturalism[1]

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Those involved in the current revival of ethical naturalism claim that this approach offers an escape from the inadequacy of moral relativism, especially the nihilism entailed in its denial of objective standards for our normative discourse. From this perspective, nature becomes the foundation for our moral claims. The following discussion generally ignores the logical and ideological issues involved in using nature in this way and instead shows that far from replacing moral relativism an ethics based on current evolutionist theory will ultimately lead to something like the relativist position. I then draw on the rules of baseball and their ability to govern behavior on the field to argue that we ought not necessarily despair our failure to locate an objective basis for our moral theories. Politics and our political institutions function in much the same capacity as the baseball establishment: they provide the rules by which the game should be played and the power to enforce compliance.

Does the denial of an objective basis for our normative commitments imply that our moral judgments express little more than personal preferences? Does moral relativism lead to a form of nihilism by effectively denying the possibility of our making any moral judgments? Those involved in the current revival of ethical naturalism answer both of these questions in the affirmative. More importantly, they then claim to offer an escape from this difficulty: nature can become the objective standard -- and thus the foundation -- for our normative discourse (Arnhart 1988, 1990, 1992; Jaffa, 1988; Masters 1989, 1990; Wilson 1993).

Interest in reviving some form of ethical naturalism has perhaps been somewhat overdue. In the past quarter century the sharp academic boundaries drawn between the natural and social sciences have been rendered increasingly suspect by the rapid growth of new biological research bearing on normative political issues. Moreover, from a historical

perspective, the separation itself has been something of an aberration in Western thought (Degler 1991). As the new ethical naturalists are quick to point out, while the use of nature in ethical theory has been derided for much of this century (largely due to alleged logical or ideological shortcomings),[2] it has nonetheless been an important part of western philosophy (Masters 1989, xi-xii; 1990, 196; Willhoite 1971; Ruse 1990). Not surprisingly, advocates of this approach have been more than willing to situate their work within this rich tradition. What is surprising is that it is not so much the work of Darwin (1971), Spencer (1896), Sutherland (1898), Kropotkin (1981), and others writing during the great heyday of Darwinian ethical theory, but that of such pre-Darwinian philosophers as Hobbes, Rousseau, Kant, Hume, Adam Smith, and even Aristotle, which has served as models for the contemporary discussion.[3]

In the following I want to explore the implications of trying to adapt the work of these pre-Darwinian figures to suit our post-Darwinian ends. I hope to demonstrate that the teleological framework which sustained these earlier efforts accounts for much of their attraction, but that it is precisely this framework which should disqualify them as viable models. I begin my argument by examining the structure of some recent efforts in the new ethical naturalism -- especially James Q. Wilson's The Moral Sense -- and their discussion of the problems associated with the relativist position. Given the number of current ethical naturalists who claim to build upon Enlightenment thought, the second section addresses eighteenth century uses of nature, the teleological structure of its conceptions of nature and natural history, and the relevance of that structure for the viability of its versions of ethical naturalism. The third section explores the Darwinian denial of a cosmic teleology and the implications of that denial for the development of a new ethical naturalism. I demonstrate that an ethical naturalism based on current evolutionist theory ultimately leads to something like the relativist position. I conclude by arguing that we ought not necessarily despair our failure to locate in nature an objective basis for our moral theories.

Nature and Nihilism

Nature and the life sciences have been used in a variety of interrelated ways in normative political theory. One of the more common has been to assist in describing human nature, so that biology, physiology, and genetics come to define a basic set of attributes and behaviors

determining the amount of socially produced variation possible within the human species (see Dobzhansky 1956; Waddington 1960; and Lumsden and Wilson 1981, 1983; also Alexander 1987). James Q. Wilson's work arguing for the existence of a human moral sense is one of the latest examples of this approach.

In The Moral Sense (1993) Wilson explicitly describes his work as a continuation of eighteenth-century Scottish and English ethical theory, particularly Adam Smith's theory of the moral sentiments (xiii, 31-34). He then draws on more recent research in evolutionist theory, psychology, anthropology, sociobiology, and sociology to make the case that human beings naturally possess a moral sense centered on feelings of sympathy, fairness, self-control, and duty. Although he is careful to note that he is not postulating a direct genetic basis for any of these traits (23), he nonetheless claims to have developed his account within the constraints of inclusive fitness theory. He argues that evolution has "selected for" a "particular psychological orientation" among members of the human species which then becomes the basis for our moral behavior (23). This orientation effectively defines permissible variation in human social arrangements so that, for example, such human institutions as the family (141-163) as well as such human behavior as female maternalism and male aggressiveness (165-190) are all said to be largely immune to cultural modification.

The evidence marshaled in support of this argument focuses on the universality of these behavioral traits within the human species. Wilson acknowledges that most researchers in this area have failed to uncover moral universals (225), but he attributes his success to the emphasis on moral dispositions or "sentiments" as opposed to moral rules. Moral rules may vary cross-culturally; the sentiments do not. Because these sentiments seem to exist in all cultures Wilson suspects they must have a natural basis, and so he provides seemingly plausible evolutionary explanations to account for their existence.

Although I have little interest in revisiting the (now) standard critiques of ethical naturalism alluded to above, I do want to note one important problem in Wilson's analysis; namely that the argument appears to border on the tautological: the reason we know these sentiments are natural is that they are universal, and the reason they are universal is that they are natural. This suspicion is reinforced once we recognize that for all his citations in the relevant literature, Wilson provides neither a specific biological explanation for the operation of the moral sense nor a

physiological description of its location. Wilson himself is not unaware of the importance of these points:

> Before the reader repeats the well-known criticisms of the idea of a moral sense, let me acknowledge that I know them also: If there is a moral sense, what is the sensory organ? If sincere people disagree about what is right and wrong, how can there be a moral sense? If a moral sense is supposed to emerge naturally, what evidence is there that human nature is sufficiently uniform so that this sense will emerge among most people in more or less the same way (26)?

He concedes that "I do not think one can easily give general answers to these important questions," that the truth "if it exists, is in the details." He then asserts that "this book is about the details" (26). Yet the questions Wilson sets aside *are* the details; for if he is unable to answer them then we have little reason to accept the rest of what follows.

The argument of The Moral Sense is analogous to a discussion of human consciousness which begins by acknowledging the problems associated with the idea of a "Cartesian theater" in the human brain (see Dennet 1991), but proceeds to discuss consciousness as if such a theater existed. In his zeal to see morality as an extension of human nature Wilson fails to consider alternative explanations for the universality of his moral sentiments. It seems equally possible, for instance, that the cultivation of these sentiments through social means might be necessary for the survival of any social arrangements. In other words, a society unable to foster these dispositions in its members would be short lived.[4] Morality may thus be a necessary but not a sufficient condition for the existence of human societies; and our moral systems may be adaptive without necessarily being genetically based (Gould 1977, 251-59).

Wilson's disregard for this possibility may be attributed to the demands of a larger problem that he is addressing. His attempt to demonstrate that human beings are biologically predisposed to certain moral dispositions and at least indirectly to certain moral rules can be viewed as part of a broader effort within normative political and ethical theory to combat various forms of cultural relativism, or what contemporary ethical naturalists have taken to calling "nihilism." The latter term, despite its frequent use, has not been very well defined in this

literature, but it seems to refer to the ambiguous status of our moral judgments in the absence of objective standards (Arnhart 1988, 1992; Masters 1989, 239-41). Wilson, for example, asserts that

> [i]f modern man had taken seriously the main intellectual currents of the last century or so, he would have found himself confronted by the need to make moral choices when the very possibility of making such choices had been denied. God is dead or silent, reason suspect or defective, nature meaningless or hostile. As a result, man is adrift on an uncharted sea, left to find his moral bearings with no compass and no pole star, and so able to do little more than utter personal preferences, bow to historical necessity, or accept social conventions (1993, 5).

That is, if we can no longer agree on some objective standard for judging competing moral claims, such claims lose their special status. Moral judgments come to express personal preferences so that statements like "Torture is wrong" become "I do not like torture." My distaste for this form of interrogation takes on much the same status as my distaste for spinach.

The fear among many of those involved in the new ethical naturalism is that relativism leads to a form of nihilism by effectively denying the possibility of our making any moral judgments, including condemnations of practices which we find abhorrent. On this view, the logic of the relativist position deprives us of the ability to make compelling moral arguments.

Larry Arnhart (1992), for instance, cites the custom of ritual female circumcision practiced in certain Islamic countries as a social custom which most of us, certainly most women, find repulsive. He then points out that despite their contempt for the practice, moral relativists are left in the uncomfortable position of having either to accept the procedure as justifiable within its particular cultural context or to acknowledge some supracultural or cross-cultural moral standard from which to condemn the practice. As Arnhart goes on to note, ethical naturalists face no such difficulty. Because nature can offer cross-cultural standards, ritual clitoridectomy, by interfering with sexual function, can be condemned by appealing to the biological universals of women that transcend the

particularities of local culture and custom (164). Nature may thus be used much as Aristotle thought it might, not as a means for providing specific moral precepts or rules of action, but as a "grasp of what is good in human life and a rough ranking of those goods" (Wilson 1993, 237). Nature reveals the proper telos for the species so that we can order our lives accordingly.

This possibility of discovering a natural teleology for the human species accounts, I think, for much of the recent interest in both reviving some form of ethical naturalism and in turning to the Enlightenment for intellectual support. For a teleological view of nature -- were it correct -- solves an important difficulty: it would supply an objective basis for our moral systems without necessarily violating the is/ought distinction. If we know the proper end for some thing, then we can move from making "is" statements to "ought" statements by measuring the success of a thing in fulfilling its end (Arnhart 1993). Thus, if the purpose of a watch is to keep the correct time, one which failed to do so could be described as a bad watch. Of course the key question we need to ask is whether nature is like a watch. For the eighteenth-century predecessors of contemporary ethical naturalists the answer was clearly in the affirmative; and once we examine the use of nature in eighteenth-century thought we can better appreciate its current appeal.

Nature and Enlightenment Morality

Throughout the Enlightenment philosophers across the political spectrum embraced the idea that nature was much too complex to have arisen from chance and must therefore represent an act of purposive creation.[5] Thus most naturalists saw an intimate connection between nature and its Creator, and it probably bears noting that the basis for this understanding was not so much biblical fiat as a logical consequence of empirical observation. G.W. Leibniz, Isaac Newton, Alexander Pope, Soame Jenyns, Adam Smith, and William Paley to name a few all argued that close observation would reveal nature's fundamental machine-like qualities; it would reveal the universe to be deliberately -- not randomly -- created.

This view implied that nature should be understood in teleological terms (Leibniz 1985, I, sec. 7-10), and natural philosophers of this period relied on such explanations to address two separate issues. First, teleology could be used to explain the basic structure of the Creation, particularly

the arrangement and definition of species along a unidimensional cosmic hierarchy -- the "chain of being" (Lovejoy 1964); and second, it could be used to explain anatomical, physiological, and morphological attributes of different species in that hierarchy (Greene 1959; Mayr 1988, 38-66). Although this latter use fell into increasing disfavor by the late eighteenth century (see, e.g., Voltaire 1959),[6] the criticism did not appear to have much impact on its use in defining and arranging species along the chain of being. That is, naturalists continued to accept the idea of a cosmic teleology, and this would prove instrumental in making nature an acceptable normative standard.

Perhaps the most influential work on the development of eighteenth-century versions of ethical naturalism and natural theology was Leibniz's Theodicy (Lovejoy 1964, 144-82; Mayr 1982, 328). Indeed, versions of its argument would be repeated throughout the eighteenth and nineteenth centuries (Bonar 1930; Bonnet 1769; Jenyns 1793; Paley 1828; Pope 1965; Prout 1834; Raphael 1947; Rousseau 1992b, 117; Smith 1976); and some form of it continues to be a frequently raised objection to Darwinian evolution (Dawkins 1986; Dennet 1995). In this work Leibniz argues that the complexity of the universe provides evidence of design and that design implies the existence of a Creator. But this basic fact immediately raises questions both to the nature and competence of the Creator and the nature and quality of that creation. For if the Creator can be understood as a kind of divine watchmaker we need to know whether He fashioned a Timex or a Rolex.

Leibniz addresses both of these issues and begins his discussion by noting that nothing in the universe is absolutely necessary and that given the existence of a Creator we can only assume things exist because He deigned to decree their existence (1985, I, 7). Accordingly, he then speculates on the attributes of the Creator based on the special requirements of the particular decision-making position in which He was situated. Given the Creator's ability to choose which universe to create from a set of infinite possibilities Leibniz is able to derive the three primary attributes of the Christian God: omniscience, omnipotence, and omnibenevolence (I, 7). Once he has established this point, he then addresses the effect of this understanding on our assessment of the quality of Creation. His famous conclusion is that such a Creator would be disposed to create the best of all possible worlds.

For our purposes, the most significant implication of this understanding is that it allows nature to play an important role in our

normative discourse. In particular, since nature expresses divine will, then, as Pope observed, "One truth is clear, 'Whatever is, is right'" (Pope, epistle I, line 294). Although the claim that "all is good" -- predicated on the idea of a divinely created natural order -- became a rather common theme in eighteenth century European ethical theory, we also see in figures as disparate in the normative commitments as Rousseau and Edmund Burke making much more general appeals to nature to support moral claims (Rousseau 1992a; Burke 1955; 1899). Furthermore, those who deployed this type of argument understood that while rational discourse might be useful for elaborating our moral precepts, the precepts themselves were "felt" rather than understood; they were in a sense pre-rational (Burke 1955, 97-98; Hume 1978, III, 1, ii; Rousseau 1992a).

One would expect that eighteenth century ethical naturalists would have offered a biological explanation for the operation and location of this moral sense. But they do not. Hume at times seems aware of the need for this type of explanation,but he generally sets it aside as a question best left to naturalists (1978, book I, chap. 1, sec. ii; I, 1, iv; and I, 2, v). And Hume, Smith, and Rousseau all fail to discuss the biology underlying their conceptions of the moral sense. I can think of at least two plausible explanations for this apparent oversight. First, by the mid-to-late eighteenth century naturalists had in fact begun to offer explanations for this sense (e.g., Buffon 1791, IV, 167-69). Second, and perhaps more importantly, within the confines of eighteenth-century conceptions of human natural history this may not have been considered a particularly difficult problem to resolve. Our Creator is likely to have placed within us the means by which we could perceive the merits and glory of His creation regardless of the development of our intellectual faculties.

Contemporary ethical naturalists who view their project as an extension of Enlightenment thought seem to have forgotten or at least downplayed the significance of this quite different understanding of nature. Appeals to nature carry some weight in the eighteenth century because of the special relation between nature and its Creator. As Smith explains it, since our moral sentiments were given to us by the Creator and were "intended to be the governing principles of human nature" the rules prescribed by those sentiments "are to be regarded as the commands and laws of the Deity..." (1976, III, 5.6). He then goes on to note that:

> The happiness of mankind, as well as of all other rational creatures, seems to have been the original

> purpose intended by the Author of nature, when he brought them into existence. No other end seems worthy of that supreme wisdom and divine benignity which we necessarily ascribe to him; and this opinion, which we are led to by the abstract considerations of his infinite perfections, is still more confirmed by the examination of the works of nature, which seem all intended to promote happiness, and to guard against misery.

He concludes by noting that in following our moral faculties we "necessarily pursue the most effectual means for promoting the happiness of mankind, and may therefore be said, in some sense, to co-operate with the Deity, and to advance as far as in our power the plan of Providence" (III, 5.7).

Interestingly, eighteenth-century ethical naturalists appealed to nature for reasons quite similar to those motivating their modern heirs; that is, they were concerned that human reason would be an insufficient basis for our moral claims. Smith, for example, criticized those who thought that our moral rules were simply the products of human reason:

> The wheels of the watch are all admirably adjusted to the end for which it was made, the pointing of the hour. All their various motions conspire in the nicest manner to produce this effect. If they were endowed with a desire and intention to produce it, they could not do it better. Yet we never ascribe any such desire or intention to them, but to the watchmaker, and we know that they are put into motion by a spring, which intends the effect it produces as little as they do. But though, in accounting for the operations of bodies, we never fail to distinguish in this manner the efficient from the final cause, in accounting for those of the mind we are very apt to confound these two different things with one another (II, ii. 3.5).

Because our moral rules are so essential to human social life we seem all too willing to suspect that they are products of human reason, when in reality, like the gears of a watch, they were designed by our Creator for this purpose. In other words, "we imagine that to be the wisdom of man,

which in reality is the wisdom of God" (II, ii, 3.5). Both Smith and Burke believed it important to demonstrate that these rules were sanctioned by more than human reason. Both deploy a teleological argument to demonstrate that inasmuch as the very possibility of human society depends upon the widespread observance of moral rules, the Creator has impressed within us a reverence for those rules, a reverence which is only subsequently confirmed by reason (Smith 1982, III, 5.3; Burke 1899, 165).

Given that the use of nature in Enlightenment ethical theory was predicated on the idea of a divinely created natural order, the obvious question we need to ask is whether contemporary invocations to nature make sense without this understanding.

Gastritis and the Good

Although one would have thought that the ascendance of Darwinian evolution would have laid to rest much of the talk of a cosmic teleology or a cosmic hierarchy, we continue to see the influence of both. For instance, we continue to see references to "higher" and "lower" organisms not only in early Darwinian discussion of nature but also in some more contemporary accounts (e.g., Dobzhansky 1956; Waddington 1960; and the quote from Mayr below). So that while much of the theoretical trappings of the chain of being has long since been discarded by most naturalists, its ordering of species has proven to be strangely resistant to the Darwinian onslaught. I say strangely because evolutionist theory has been unable to identify any traits by which we could construct a cosmic hierarchy ranking different species and genomes; and Darwinian and post-Darwinian theory leave little room for the view that nature represents an act of purposive creation or that the evolutionary process possesses some ultimate end or telos (Gould 1989, 27-48).

Advocates of the new ethical naturalism seem to recognize both the importance of a cosmic teleology for their theories and the difficulties of incorporating one within the confines of Darwinian theory. Arnhart, for instance, denies that either he or for that matter Aristotle accept a cosmic teleology but instead claims that he sees each species as possessing a particular telos (1988, 187; also Grene 1972). He defends this narrow teleology in part by noting that we generally agree on the proper state of different organisms. Each of us, for instance, is capable of recognizing the difference between being healthy and unhealthy. Indeed, medical science is predicated on the idea that certain states of the body are undesirable and in

some sense "bad," so that in seeking medical attention for our ailments we effectively derive an "ought" statement from an "is" statement. Arnhart is suggesting that, much as Aristotle thought, we can recognize the proper end for a given organism and distinguish between one which is achieving its full potential and one which is not. This implies that we can determine a rough order for ranking at least the members of a species by measuring the extent to which they have fulfilled the end appropriate for their species.

Yet Arnhart, like Aristotle (1986), nonetheless does posit the existence of a natural hierarchy and he defends this view by claiming that human beings recognize this ranking "in terms of specific criteria such as levels of complexity and *from their perspective as human beings*" (1988, 188; emphasis in original). He goes on to assert that "[e]ven if we see the human species not as the highest step of a ladder but as one branch of a bush, we can still look at the living world from the perspective of human life and judge other forms of life for their closeness to us" (188).

Of course we can still devise a rank ordering of nature, but we ought not fool ourselves into believing that that order is somehow natural. Rather, the particular arrangement of species we describe will represent both human perspective and human criteria. Why should levels of complexity serve as the basis for a natural hierarchy, and for that matter how do we determine complexity? In order to have a nonarbitrary ranking of species we would need to know that the feature with which we arranged our hierarchy was itself nonarbitrary. We would need to know that complexity was in some relevant sense "higher" or more important than other possible features (Sorenson 1988). Current evolutionist theory has not offered any evidence to support this claim. Insofar as nature provides no evidence of any overriding principles or criteria for arranging species in some natural order, it provides little ammunition for the attack on relativism. If anything it seems to lend further support to the relativist position.

Peptic ulcers affect nearly ten percent of the global adult population. Recent work has discovered that the vast majority of these afflictions is caused by the presence of a single species of bacteria in the stomach lining: *Heliobacter pylori* (Monmaney 1993). This bacterium tends to settle in the pylorus amid the thick mucous coating which protects the stomach lining from its own acids. Once ensconced in the lining, the bacteria manage to thrive in an incredibly hostile environment by relying on the host's own immune system to provide necessary nutrients. The body's normal defense -- increased production of white blood cells, killer

cells, and other like microbes -- is unable to penetrate the stomach lining and is thus unable to attack the bacteria. As a result, these "killer cells" begin to amass at the stomach lining and start the process leading to an ulcer. On alert but unable to attack the bacteria directly, they begin to attack the stomach lining itself which in turn triggers the production of more killer cells. Sufficient amounts of micronutrients that are then sent to feed these cells seep out of the stomach lining into the mucous, where the awaiting bacteria feast.

What this means is that from the perspective of *H. pylori*, gastritis is the preferred state of affairs. While it may be important *to me* to take antibiotics which destroy the bacteria and ease my pain, nothing independent of my subjective experience of the pain, nothing in "nature" if you will, justifies such an action. I am simply expressing my preference for my own well-being rather than that of *H. pylori*. Likewise, the physician treating my ulcer is acting on her subjective biases in favor of human DNA over that of *H. pylori*. But since the bacterium has evolved in response to its environment in exactly the same way in which *H. sapiens* has evolved in response to its admittedly quite different one, nature can be said to show no preference for the DNA of either.

I should note that I am not suggesting that the inadmissibility of a cosmic teleology automatically denies a place for any teleological explanations in contemporary evolutionism. In fact one might object that the narrow conception of species-specific teleology remains viable; for in seeking medical treatment for my ulcer I am simply recognizing that as a human being I have different interests and desires than I would if I were *H. pylori*. It just happens to be the case that my ability to fulfill my species-specific teleology comes at the expense of this bacterium.

One potentially helpful contribution to this discussion is Ernst Mayr's use of the term "teleonomic" to describe any process or behavior that owes its goal-directedness to the operation of a program (1992, 129).[7] In this form, teleology may be invoked to explain the development and behavior of different organisms as long as that development or behavior can be attributed to some program (129). For our purposes, the significance of this lies in the fact that the discovery of DNA and our subsequent understanding of the role and operation of genes in the life of an organism have revealed a kind of programming inherent in nature. From this perspective, modern genetics can sustain a kind of teleological understanding of morphology, anatomy, physiology, and at least some behavior. In such circumstances, a kind of teleology might be

invoked without introducing the debilitating metaphysical baggage associated with its more Aristotelian forms. But notice that we cannot speak so much of a species-specific teleology as a genotype-specific teleology, and that the ends of the genotype can be determined not by human criteria but by the unfolding of the particular genetic program.

Mayr identifies two types of teleonomic programs -- closed and open -- distinguished by the relative ease with which the program is capable of incorporating extra information (129). Thus, where closed programs are sets of complete instructions laid out in the DNA of the genotype, open programs allow for the addition of new information, whether through learning, conditioning, or other experiences during the life of the genotype (129). For Mayr, "most programs which control the instinctive behavior of insects and lower invertebrates seem to be closed programs," while "most behavior in higher animals" is controlled by open programs (132). Yet it is unclear whether such narrower claims provide a sufficient basis for a renewed ethical naturalism.

Keeping to our example of human health we see the same difficulties posed by stomach ulcers also surface when we look at genetically based diseases. Note that the genes responsible for such diseases are producing a particular teleonomic program, albeit one that in some cases may be pathological to the larger organism. But what does it mean to say some programs are "pathological"? We are not immortal and *all* genetic programs eventually terminate in the death of the organism. Setting aside any contingent events which might have an impact on the life of an organism, the only lifespan that might be prescribed by nature would be that encoded in the genes of particular individuals. A perspective which viewed these programs as diseased and undesirable is not a perspective rooted in the nature of the organism but one which has been shaped to a considerable degree by a particular cultural context. In terms of the human species, it reflects the interference of culturally specific developments in such areas as nutrition, medical science, personal and public hygiene, technology, and education.

According to post-Darwinian theory nature "concerns" itself with the genes of the individual rather than the life of the species, so that the value of different genotypes might at best only be known after the fact in terms of relative reproductive success. In other words, with the denial of a cosmic teleology we have no objective way of assigning value to different genotypes, making a narrow teleology an insufficient basis for an attack on relativism. *Society* may decide that some behavior is inappropriate, but not

nature. Indeed, it is possible that genetic programs which produce what we take to be less than desirable outcomes may have had adaptive value at an earlier point in human evolution, may have some adaptive value in the future or under different environmental constraints, or perhaps may have no adaptive value whatsoever. This does not mean that when ill I should not seek medical attention and otherwise do all that I can to cure the disease, or that society should not punish individuals who violate its norms and laws. What it does mean is that such decisions are subjective calls based on *my* or *our* idea of the telos of the species, not nature's.

It would appear to be the case that the only version of ethical naturalism that modern genetics could support would be a kind of reaffirmation of the Leibnizian dictum of "whatever is, is right;" which does not necessarily help resolve the perceived problems of moral relativism. I am not here worried about any conservative biases of the theory, for as Rousseau reminds us, one could argue that according to this rule any action we take will also be good (Rousseau 1992b, 129). If behavior is attributable to some type of teleonomic program, and if we are unable to provide an objective ranking of the different programs, then all behavior is by definition natural and, by extension, just. Insofar as the actions of sociopath and philanthropist alike are products of particular genetic programs, contemporary ethical naturalists would have to concede that according to nature each is equally praiseworthy or blameworthy. Given the differences in reproductive success between, say, John Wayne Gacy and Mother Teresa, one could argue that the genes responsible for Gacy's homicidal behavior are more successful -- and therefore from an evolutionary point of view "better" -- than those of the Nobel laureate.

Baseball, Nihilism, and Politics

The failure of evolutionist theory in particular and nature in general to provide the kind of foundation for our moral theories which contemporary ethical naturalists have been searching for need not be as catastrophic as most of these thinkers would have it. Michael Ruse has argued that our difficulties at the metaethical level (especially our inability to discover an objective basis for morality) need not necessarily lead to nihilism. He claims that "Substantive morality is a collective illusion of our genes" but one which is "no less real than many other things without an objective referent, like the rules of baseball" (1990, 65). This is a helpful analogy that bears closer scrutiny.

Biology and evolutionist theory might explain the existence of a being capable of playing baseball, but social or cultural forces provide the rules by which the game is played; and those rules are entirely arbitrary (i.e., they do not derive from nature or any other objective source). Yet those involved in the game accept the rules and adjust their behavior accordingly. On the diamond, everyone acts as if the rules were beyond question,[18] and on the face of it this is a rather remarkable development. For it is certainly not inconceivable that various participants in the game might reason that they could behave any way they please on the field since the rules meant to govern their behavior issue not from nature nor from some other objective source but rather from a particular group of human beings at a particular point in time. For instance, a right-handed batter could decide at the crack of the bat to break towards third rather than first base since no objective reason exists for running towards the latter and by following the rules he is at a competitive disadvantage *vis-a-vis* left-hand hitting batters. If the failure to have objective standards for our rules leads to nihilism, why do we not see more of these scenes on the field?

One answer is that such a player would quickly find himself removed from the game. This might seem a bit obvious but it is just this fact which contemporary ethical naturalists have apparently overlooked. Society at large likely has its share of individuals who might be tempted to take the arbitrariness of our moral values as an invitation to disregard those values, but society -- like baseball -- also has institutions, personnel, and methods for dealing with deviants. Politics and our political institutions function in much the same capacity as the baseball establishment: they provide the rules by which the game should be played and the power to enforce compliance. Thus, while the facts of human evolution and human biology may do little to provide the kind of foundation for our ethical principles that contemporary ethical naturalists claim, this should not necessarily be cause for despair.

Conclusion

In the Politics, Aristotle defines the human species as a "political animal." Contemporary proponents of ethical naturalism have with good reason attempted to recover the "animal" in this definition. They are correct to argue that the deep divisions between the social and natural sciences are no longer viable, and studies of human evolution and human biology will no doubt shed some important light on a host of issues related

to human behavior. Indeed the whole question of morality would be moot were it not for the underlying biology of the species allowing for such crucial aspects of our being as human emotion, consciousness, and rationality.

That said, we should also note that in refocusing our attention on the biological dimensions of human behavior, contemporary ethical naturalists seem to have lost sight of Aristotle's adjective. We are *political* animals. We may not have a transcendent basis for our moral beliefs but we do have a forum for defining those beliefs and the institutions for enforcing deviation and detection from those beliefs. The power of our moral claims may have less to do with their pristine logic than with their ability to influence behavior. Cultural and social practices which we find objectionable may still be condemned from a variety of moral perspectives, but such practices will not likely be changed unless and until these condemnations inspire political action. Ultimately, it may be the case that Thrasymachus was in some important respects correct. Our conceptions of justice and morality do not issue from any natural or divine source but are the fruits of political life.

Notes

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2. Throughout much of this century the logical problems associated with moving from "is" statements to "ought" statements have been attributed to G.E. Moore's discussion of the naturalistic fallacy (Moore 1903). For a discussion of the importance of this critique in stemming the development of ethical naturalism see Waddington (1960, 50) and Murphy (1982). More recently, the identification of the is/ought problem has been attributed to David Hume (to the point where it is now commonly referred to as "Hume's law"); see Hume (1978, book III, part I, sec., I, pp. 469-470), Waddington (1960), Flew (1967) and Murphy (1982). For a recent study disagreeing with this reading of Hume, see Martin (1991).

Many of the more ideologically motivated critiques of sociobiology can be found in Birke and Silvertown (1984), Caplan (1978), and Montagu (1980). For a persuasive rebuttal of such criticisms, see Masters (1982).

3. For contemporary uses of Hobbes, see Miller (1993); for Rousseau see Masters (1978), Frayling and Wokler (1982), and Wokler (1978, 1980); for Kant see Ruse (1990); for Hume see Ruse (1990) and Wilson (1993); for Smith see Wilson (1993); and for Aristotle see Arnhart (1988, 1990, 1992, 1993), Jaffa (1988) and Wilson (1993).

4. I will grant, however, that the research Wilson presents concerning the biological mechanisms of maternal care is rather persuasive, so that social arrangements intent on disrupting a mother's desire to care for her offspring are quite likely to fail. Yet this research says little about the biology of *paternal* care and the structure of the family. Beyond the mother-child relationship all sorts of family arrangements are possible and each of the arrangements will no doubt foster different psychological profiles, with concomitant effects on the behavior -- including the moral behavior -- of the individuals reared in those arrangements. We have sufficient examples of nonhuman primate populations thriving without the kind of family structures associated with human beings to suggest that the species could survive with alternative parenting arrangements.

5. There were, however, some notable exceptions, particularly among those *philosophes* who embraced some version of transformism or epigenesis; see, for example Diderot (1964). For a discussion of eighteenth-century transformist theories see Gould (1977, 201-206), Mazzolini and Roe (1986), and Roger (1963).

6. Although most of the leading naturalists of the eighteenth century rejected the use of final causes in anatomy and morphology, this approach continued to have its supporters. When Buffon criticizes this use of teleological explanations, for example, his English translator, naturalist William Smellie, appends a lengthy footnote taking issue with the argument. See Smellie's note in Buffon (1781, II, 70-71).

7. Mayr categorizes the myriad uses of teleology in the literature into four rough groupings: programmed goal-directedness, cosmic teleology, adaptedness, and deterministic natural laws, and argues that the term should only be used in the case of the first two.

8. Of course players and coaches frequently disagree about the *interpretation* of the rules but few question the legitimacy of the rules themselves during the course of a game.

Bibliography

Alexander, Richard D. 1987. *The Biology of Moral Systems*. New York: Aldine de Gruyter.

Aristotle. 1986. *De Anima*. New York: Penguin.

Arnhart, Larry. 1988. "Aristotle's Biopolitics: A Defense of Biological Teleology Against Biological Nihilism." *Politics and the Life Sciences* 6: 173-191.

Arnhart, Larry. 1990. "Aristotle, Chimpanzees, and Other Political Animals." *Social Science Information* 29: 479-559.

Arnhart, Larry. 1992. "Feminism, Primatology, and Ethical Naturalism." *Politics and the Life Sciences* 11: 157-170.

Arnhart, Larry. 1993. "How Animals Move From 'Is' to 'Ought': Darwin, Aristotle, and the Ethics of Desire." Paper presented at the Annual Meetings of the American Political Science Association, Washington, D.C., September 2-5.

Birke, Lydia and Jonathan Silvertown, eds. 1984. *More than the Parts: Biology and Politics*. London: Pluto Press.

Bonar, James. 1930. *Moral Sense*. New York: MacMillan.

Bonnet, Charles. 1769. *Contemplation de la Nature*. Amsterdam: M.M. Rey.

Buffon, George Louis leClerc, comte de. 1781. *Natural History: General and Particular*. Ed. and trans. William Smellie. 8 vols. London: W. Strahan and T. Cadell.

Burke, Edmund. 1899. "Appeal from the New to the Old Whigs." In *The Works of the Right Honourable Edmund Burke*. London.

Burke, Edmund. 1955. *Reflections on the Revolution in France*. Ed. Thomas H.D. Mahoney. Indianapolis, Ind.: Bobbs-Merrill.

Caplan, Arthur, ed. 1978. *The Sociobiology Debate*. New York: Harper & Row.

Darwin, Charles. 1871. *The Descent of Man and Selection in Relation to Sex*. 2 vols. New York: D. Appleton.

Dawkins, Richard. 1986. *The Blind Watchmaker*. New York: W.W. Norton.

Degler, Carl. 1991. *In Search of Human Nature*. New York: Oxford.

Dennet, Daniel. 1991. *Consciousness Explained*. New York: Little, Brown.

Dennet, Daniel. 1995. *Darwin's Dangerous Idea*. New York: Simon & Schuster.

Diderot, Denis. 1964. *Penseés philosophiques*. Ed. Paul Verniere. Paris: Garnier Frères.

Dobzhansky, Theodosius. 1956. *The Biological Basis of Human Freedom*. New York: Columbia.

Flew, Antony. 1967. *Evolutionary Naturalism*. New York: St. Martin's.

Frayling, Christopher and Robert Wokler. 1982. "From the Orang-utan to the Vampire: Towards an Anthropology of Rousseau." In *Rousseau After 200 Years*. Ed. R.A. Leigh. New York: Cambridge.

Gould, Stephen Jay. 1977. *Ever Since Darwin*. New York: W.W. Norton.

Gould, Stephen Jay. 1989. *Wonderful Life*. New York: W.W. Norton.

Greene, John. 1959. *The Death of Adam*. Ames, Ia.: University of Iowa.

Grene, Marjorie. 1972. "Aristotle and Modern Biology." *Journal of the History of Ideas* 33:395-424.

Hume, David. 1978. *A Treatise on Human Nature*. Eds. L.A. Selby-Bigge and P.H. Nidditch. New York: Oxford.

Jaffa, Harry. 1988. "Humanizing Certitudes and Impoverishing Doubts." *Interpretation* 16:111-138.

Jenyns, Soame. 1793. *Works of Soame Jenyns*. Ed. Charles Nalson Cole. 4 vols. London.

Kropotkin, Petr. 1981. *Mutual Aid*. Princeton, N.J.: Princeton.

Leibniz, G.W. 1985. *Theodicy*. Trans. E.M. Huggard. LaSalle, Ill.: Open Court.

Lovejoy, A.O. 1964. *The Great Chain of Being*. New York: Harvard.

Lumsden, Charles J. and Edward O. Wilson. 1981. *Genes, Mind, and Culture*. Cambridge, Mass.: Harvard.

Lumsden, Charles J. and Edward O. Wilson. 1983. *Promethean Fire*. Cambridge, Mass.: Harvard.

Maistre, Joseph Marie, comte de. 1965. *Works of Joseph de Maistre*. Ed. Jack Lively. New York: MacMillan.

Martin, Marie A. 1991. "Hutcheson and Hume on Explaining the Nature of Morality: Why it is Mistaken to Suppose Hume Ever Raised the 'Is-Ought' Question." *History of Philosophy Quarterly* 8: 277-289.

Masters, Roger. 1978. "Jean-Jacques is Alive and Well: Rousseau and Contemporary Sociobiology." *Daedalus* 107: 93-105.

Masters, Roger. 1982. "Is Sociobiology Reactionary? The Political Implications of Inclusive Fitness Theory." *Quarterly Review of Biology* 57: 275-292.

Masters, Roger. 1989. *The Nature of Politics*. New Haven: Yale.

Masters, Roger.1990. "Evolutionary Biology and Political Theory." *American Political Science Review* 84: 195-210.

Mayr, Ernst. 1974. "Teleological and Teleonomic: A New Analysis." *Boston Studies in the Philosophy of Science* XIV: 91-117.

Mayr, Ernst. 1982. *The Growth of Biological Thought*. Cambridge: Harvard .

Mayr, Enrst. 1988. *Toward a New Philosophy of Biology*. Cambridge, Mass.: Harvard.

Mayr, Ernst. 1992. "The Idea of Teleology. " *Journal of the History of Ideas* 53: 117-135.

Mazzolini, Renato G. and Shirley A. Roe. 1986. "Science Against the Unbelievers: The Correspondance of Bonnet and Needham, 1760-1780." *Studies on Voltaire and the Eighteenth Century*. Vol. 243.

Miller, Trudi. 1993. "The Duality of Human Nature." *Politics and the Life Sciences* 12: 221-241.

Monmaney, Terrence. 1993. "Marshall's Hunch." *The New Yorker* September 20, 1993: 64-72.

Montagu, Ashley, ed. 1980. *Sociobiology Examined*. New York: Oxford.

Moore, G.E. 1903. *Principia Ethica*. London: Cambridge.

Murphy, Jeffrie G. 1982. *Evolution, Morality, and the Meaning of Life*. Totowa, N.J.: Rowman & Littlefield.

Paley, William. 1828. *Natural Theology*. Oxford, England.

Pope, Alexander. 1965. *An Essay on Man*. New York: MacMillan.

Prout, William. 1834. *Chemistry, Meteorology, and the Function of Digestion Considered with Reference to Natural Theology*. Philadelphia: Carey, Lea, and Blanchard.

Raphael, D. Daiches. 1947. *The Moral Sense*. New York: Oxford.

Roger, Jacques. 1963. *Les sciences de la vie dans le penseé Française du XVIII^e siècle*. Paris: Armand Colin.

Rousseau, Jean-Jacques. 1992a. "Discourse on the Origin and Foundations of Inequality Among Men." In *The Collected Writings of Jean-Jacques Rousseau*, eds. Roger D. Masters and Christopher Kelly. Trans. Roger D. Masters and Judith R. Masters. 4 vols. to date. Hanover, N.H.: University Press of New England. Vol. III: 1-95.

Rousseau, Jean-Jacques. 1992b. "Letter from J.J. Rousseau to Mr. Philopolis." In *The Collected Writings of Jean-Jacques Rousseau*. Vol. III: 127-132.

Ruse, Michael. 1990. "Evolutionary Ethics and the Search for Predecessors: Kant, Hume and All the Way Back to Aristotle?" *Social Philosophy* 8: 59-85.

Smith, Adam. 1976. *The Theory of Moral Sentiments*. Ed. D.D.Raphael and A.L. Macfie. New York: Oxford.

Sorenson, Leonard. 1988. "On the Problematic Dimensions of Bioethics and the Preconditions of Natural Right." *Politics and the Life Sciences* 6: 215-220.

Spencer, Herbert. 1896. *The Principles of Ethics*. 2 vols. New York: D. Appleton.

Sutherland, Alexander. 1898. *The Origin and Growth of the Moral Instinct*. 2 vols. New York: Longmans, Green, and Co.

Voltaire, François Marie Arouet de. 1959. *Candide*. Trans. Lowell Bair. New York: Bantam.

Waddington, C.H. 1960. *The Ethical Animal*. London: George Allen & Unwin.

Willey, Basil. 1940. *The Eighteenth Century Background: Studies on the Idea of Nature in the Thought of the Period*. New York: Columbia.

Willhoite, Fred Jr. 1971. "Ethology and the Tradition of Political Thought." *Journal of Politics* 33: 615-641.

Wilson, James Q. 1993. *The Moral Sense*. New York: The Free Press.

Wokler, Robert. 1978. "Perfectible Apes in Decadent Cultures: Rousseau's Anthropology Revisited." *Daedalus* 103: 107-134.

Wokler, Robert. 1980. "The Ape Debates in Enlightenment Anthropology." *Studies on Voltaire and the Eighteenth Century* 192: 1164-1175.