SOCIOBIOLOGY AND HUMAN NATURE: A PERSPECTIVE FROM CATHOLIC THEOLOGY

by Stephen J. Pope

Abstract. This paper addresses a nonspecialist audience on how sociobiological accounts of human nature might be relevant to Christian theology. I begin with some confessional remarks to clarify what I mean by Christian theology and how I understand it to be related to science. I indicate briefly why sociobiology might be of interest to theology and then move on to sketch some ways in which sociobiology might relate to theological ethics. My basic point is that sociobiology is directly relevant to theological ethics in its understanding of evolved human emotional predispositions but not in its normative reflection proper.

Keywords: faith; human flourishing; human nature; normative discourse; Roman Catholic; sociobiology; theological ethics; theology; virtue.

CATHOLIC THEOLOGY AND REASON

Christian theology, at least from the time of Saint Anselm in the twelfth century, has been understood to be "faith seeking understanding" (*fides quaerens intellectum*) (Anselm [1078] 1956). Unlike the field of religious studies, in which one finds, for example, detached anthropological and sociological examinations of religious phenomena, theology assumes the existence of some kind of faith (see Congar 1968). This overlaps with a definition given by Thomas Gilbert and James Moore in their unpublished paper "The Quest for Meaning" (1997), describing theology as "the construction of a rational account of a religious faith that can provide guidance for the thought and actions of a community of believers." Moore describes theology as "the effort to give credible explanations for religious ideas and experiences." Theology in the sense that I am using it

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here overlaps with these general descriptions, but it does not necessarily involve one in the more ambitious project of "constructing a worldview" (Gilbert and Moore 1997).

The great German theologian Karl Rahner defined theology as "the conscious and methodological explanation and explication of the divine revelation received and grasped in faith" (Rahner 1975, 1687). *Faith* involves at least two components. The affective component involves trust in and loyalty to God, the ultimate "holy mystery" that has been definitively revealed in Jesus Christ. The cognitive component is an intellectual assent to the central beliefs held by the community in its tradition.

In this view, faith provides the believer with a knowledge of truth, but in a manner radically different from that of science. I assume as a matter of faith that meaning has already been provided in the Christian message, which is not itself in need of fundamental reconstruction. The message is grasped in faith, and believers seek to understand more deeply the truth that they have already apprehended on various levels through the acts and virtue of faith. This is not to endorse an un-self-critical faith (or what Bernard Lonergan would call the "flight from understanding" that underlies bias) but only to say that self-criticism is a moment within and an expression of the desire to develop a deeper faith (Lonergan 1957, xi; see also pp. 191–206, 218–44).

The core of the message itself is not in need of fundamental reworking, but our interpretation of the message and its implications is by its very nature always capable of improvement, enrichment, and deepening. The very nature of God as "holy mystery" means that theology will always be profoundly inadequate to its principal object. Theological development is stimulated by various sources, one of which is the questions posed to it from science. As we will see, this is true of sociobiology, which is the context for questions that cannot be answered on sociobiological grounds themselves.

My faith is Roman Catholic. It is *Roman* in part because I acknowledge the authority of the bishops, in union with the bishop of Rome, to faithfully articulate what is essential to salvation according to the Christian tradition. The underlying conviction is not authoritarian, believing in a kind of ecclesial fideism that something is right because the church teaches that it is so. Rather it is grounded in a view of the social and communal nature of faith, that it is always experienced, received in, and developed within a community, and that it is passed on by that community over time through the Bible and the tradition of the Church based on it. It also is grounded in a view of the Holy Spirit as active in the Christian community, moving its members closer to God.

It is *Catholic* in several senses, including its universal inclusivity—its openness to all people (not just those of one nationality or class, for

instance)—and (in principle) its openness to all truth wherever it is found, whether in religious or nonreligious sources. Openness to truth —always held as an ideal but often not practiced—includes openness to scientific truth, including whatever scientific truth is forthcoming from sociobiology, as we will see. To anticipate, the insights of science can contribute to the revision and development of theology (and doctrine) by offering more adequate descriptions and explanations of aspects of human behavior that come under the purview of theology.

A very important mark of Catholicism is its understanding of reality as *sacramental*. God becomes real for us in the concrete details of ordinary life; the secular is always also potentially the scene of the sacred. Emphasis on the Incarnation of God in Jesus Christ is essential to this sacramental sense of ordinary human existence. The union of God and humanity in the person of Christ indicates what, to a Catholic, is God's intention for the ultimate destiny of every person: sanctification and union with God. What is crucial here is that sanctification is not an abandonment or rejection of the naturally human but rather its redemption and perfection.

The human mind naturally, spontaneously, and insistently raises and answers questions. Because, as Saint Thomas Aquinas put it, "grace perfects nature," human reason is ultimately in harmony with revelation, and therefore theology draws upon philosophy and other sources of human insight. Most of the major breakthroughs in the history of theology occurred when Christian thinkers employed significant but previously untapped sources of philosophical reasoning: Augustine was deeply influenced by neo-Platonism, Thomas Aquinas by Aristotle, and Rahner by Martin Heidegger. The same tendency can be traced in Protestant theology: Jonathan Edwards was profoundly shaped by John Locke, Søren Kierkegaard by Immanuel Kant, Paul Tillich by Friedrich Schelling, and so forth.

Theology and Science

Not only philosophy but all the insight that emanates from human reason is relevant for theology in one way or another. For theological reasons, Christians ought to reject the doctrine of *double truth*—the belief that religion delivers one set of truths that are opposed to the truths generated by reason unaided by revelation. This doctrine ultimately undercuts monotheism, the belief in one God that is the ultimate source of all truth. God speaks to us through both reason and revelation, and therefore these sources cannot finally be in any serious and fundamental conflict. Obviously, sometimes interpretations of what revelation means conflict with what is thought to be what is disclosed by reason, but for Catholic theology, this means that somewhere there is a problem of interpretation. Either the doctrine has been poorly interpreted (which is apparently one

component of the Galileo fiasco), or somehow the science has been poorly interpreted (e.g., when Christians believed that Darwinism held that at some point in prehistory humans were generated from apes).

Thus, for all its other problems, Catholic thought has not had anything like the turmoil over evolutionary theory that has plagued some Protestant denominations. Catholic theology (again, in principle) has little trouble accepting reasonable scientific accounts of the age of the universe as around 15 billion years, or the age of life on earth as about 4 billion years, or the emergence of the earliest humanlike animals around 4 million years ago (Gilbert and Moore 1997). Most Catholic theologians accept the status of evolution as a very well founded hypothesis compatible with the doctrine of Creation. Put too simply, the former deals with the means of Creation, the latter with its ultimate cause. This view can allow for a rejection of the literal interpretation of Genesis without suggesting for a minute that Genesis is in any religiously significant sense untrue or fictional.

We do not need to espouse literalism to affirm the religious truths of Genesis—that God and God alone (not the competing idols) is Creator, that we are creatures, that human beings bear God's image and therefore have a unique dignity, that men and women are made for each other, that we are to be stewards of nature, that the origin of sin lies in pride, jealousy, and disobedience, that sin unleashes a cycle of violence, that God's love is forbearing and steady in spite of human inconstancy and sin, and so forth. These truths are affirmed daily in ordinary human experience, at least as viewed through the eyes of faith. We affirm them as revealed, to be accepted on the authority of God's word, without making the narrow assumption that God reveals only in the mode of literal truth.

Faith moves the believer toward deeper reflection about how Christian belief is related to beliefs about the world in which we live. Science is a major source of understanding of that world, and therefore by the dynamism of its very nature, faith inspires theological openness to science. By *science* I mean the methodical striving to understand answers to the question raised by Gilbert, How does the world work? It includes subquestions like What are the causal relationships between observed events? and What are the causal relationships between our actions and their consequences? (Gilbert and Moore 1997).

All of science is potentially relevant to theology, but some scientific disciplines are more central to theology than others; for example, neuroscience may be more pertinent than entomology. Science is relevant to speculative theology in that it can assist our understanding of the natural world, human nature, and the relation between the two. Thus, better knowledge of the age of the universe might lead to a deeper theological sense of the mystery of the Creator. Science also is relevant to practical

theology, particularly moral theology, to the extent that it can help us to understand better what influences and conditions human behavior. To mention one example, some kinds of human failure that in the past have been attributed to the vice of sloth or accedia might now be better understood in terms of serotonin deficiency or other biochemically based causes and therefore as appropriately responded to not by confession and moral exhortation but rather by means of Prozac or other antidepressant medication. Science in this case helps us to understand better certain behavioral patterns, and technology assists in their management, if not elimination.

The range and depth of ethical problems posed by technology is familiar to us all. And it is well to keep in mind that science and technology provide the stimulus and context for moral problems which they themselves are not equipped to resolve. For example, technology can give us the ability to retrieve sperm from deceased males and to implant them in females desiring to procreate, but it cannot give us the wisdom to know whether doing so is morally desirable.

Most moral theologians and philosophers are no more competent readers of scientific material than scientists are of theology and philosophy. This raises the question of *authority*, by which I mean not coercive power over another person or people but a kind of reliance on a source that one considers truthworthy. Theologians who consider scientific sources necessarily develop arguments based on authority, which, as Thomas Aquinas noted, are the weakest of all kinds of argumentation. Theologians rely upon various kinds of authority, the most important of which is sacred Scripture, but which also include tradition, doctrine, the history of theology, the authority of the Church, and so forth. (Science also relies upon its distinctive kinds of authority, but that is another matter.) Theologians can understand fairly well the rational justification for the philosophical positions that they adopt, but most are not equally well versed in the scientific argumentation for the particular conclusions that they want to reflect upon. This means, among other things, that theologians will be wary of using scientific materials out of fear that misunderstanding this source might lead to misusing it.[1]

SOCIOBIOLOGY

Though I only now introduce sociobiology, from the point of view of Catholic theology everything I have said so far about generic science applies to it as well—at least under certain conditions.

The relevance of sociobiology to theology is difficult to discern, in part because of the difficulty of determing the exact meaning of *sociobiology* and of who counts as a *sociobiologist*. E. O. Wilson defined sociobiology as the "*scientific study of the biological basis of social behavior*" (Wilson 1975,

795, emphasis added). One characteristic mark of sociobiology is the theory of "inclusive fitness" (Williams 1966, 97, 194–96, 207). But sometimes scientists who have written extensively on this issue refuse to be called *sociobiologists*, for example, Richard Alexander. Some use a different self-description to distance themselves from pop sociobiology, for example, *evolutionary psychologists* such as Donald Symons and David Buss, or *behavioral ecologists* such as Alexander and his students. The point is that it is difficult to clearly determine the relevance of a discipline to theology if it is hard to identify exactly what count as the boundaries of the discipline.

As a scientific analysis of nonhuman sociality, sociobiology has not been particularly controversial. Its status as scientific has not been challenged by its critics (e.g., Kitchner) when it comes to ants, marmots, and baboons. Its examination of human behavior, on the other hand, has received plenty of negative responses, which have ranged from blanket dismissals of sociobiology as the resurrection of social Darwinism to much more precise criticisms of particular arguments, for example, over whether *kin selection* is the best explanation for the typical behavioral patterns found in a particular species.

Though apparently inoffensive enough when applied to bats or fish, sociobiology is most obviously relevant to theology when it considers human behavior. Catholic theology has traditionally sponsored natural theology, a sacramental view of human life, and natural law ethics. Catholic social teachings have been based on the affirmation of human beings as social animals, a claim which has been particularly emphasized in the modern period in response to the dominance of individualism in liberal political theory. With the history of Catholic theology, one would think that it would be the scene of some serious discussion of sociobiology, but this is not the case.

This year has been typical for the two scholarly societies in which I participate, the Catholic Theological Society of America and the Society of Christian Ethics (which counts a large number of Catholics in its membership), where there were no papers at all dealing with the relevance of evolutionary analyses of human behavior to theology or ethics. Attitudes of theologians range from indifference ("If they stick to science, OK, but it won't have much to do with theology"), to suspicion ("I've only read about it in the *New York Times Book Review*, but I know that I wouldn't believe it if I did read it"), to outright hostility ("I read *On Human Nature* and *The Selfish Gene*, and both were highly speculative, biased, and philosophically naive").

Many Roman Catholic theologians would accept the claim that sociobiology is relevant to theology inasmuch as it supplies reliable information and explanation of aspects of human behavior. They would argue,

though, either that sociobiology is not valid science or that if it contains elements of valid science its exponents discredit themselves by entering into nonscientific speculation and going well beyond what can reasonably be said to have been established on scientific grounds alone. The former claim typically relies on authorities—for example, the relentless and "take-no prisoners" criticism of sociobiology by people like Stephen Jay Gould.

At times the sociobiologists tried to smuggle moral evaluations into their allegedly scientific analyses of human behavior. They also sometimes suggested that human behavior was determined by genes, for example, maintaining that males are more aggressive and women more nurturing and that we should therefore not be surprised if women are less competent financiers or fighter pilots. The central criticism was that the sociobiologists tended to commit the naturalistic fallacy, illicitly moving from a factual description of behavior (the *is*) to an implicit (and sometimes explicit) normative approval of this behavior (the *ought*).

Some sociobiologists learned from this criticism and thereafter eschewed normative discourse, for example, John Beckwith and Donald Symons, from two very different perspectives. Others decided to swim in safer waters. For example, Alexander returned to his work on beetles, and Wilson has become an ecologist and environmental activist. In addition to unfortunate political intimidation, the question of academic competence also was raised in a prominent way. Attempts to move from describing and explaining human behavior often were accompanied by overt normative attempts to restrain it (Dawkins 1976), to submit it to the norms of human rights (Wilson 1978), and to encourage greater tolerance (Masters 1993, 144–57). Some sociobiologists came to realize that they simply lacked competence in ethics, political theory, and other disciplines and retreated from normative discourse altogether.

The methodological restrictions imposed by their own discipline tended to lead the early sociobiologists to construe human behavior exclusively in organic, chemical, and genetic terms. The second wave of sociobiologists considered culture along with genes but tended to interpret culture as expressing genetic influences rather than as an independent variable (Lumsden and Wilson 1983). Reductionism was not eliminated, and for this reason sociobiologists continued to find it very difficult to acknowledge many of the more noble features of human behavior, such as moral integrity, appreciation of beauty, the loyalty of friendship, and the like.

Sociobiologists have been at their worst when they have ventured to discuss matters of utmost concern to theologians, namely, morality and religion. Some sociobiologists made the mistake of trying to establish a kind of validity (or legitimacy) for religion by showing that under the

surface trappings of superstition, ritualism, and moralism it was actually also the carrier of values that could be shown to be justified (or rational) on sociobiological grounds; religion now was not the "poor man's philosophy" but the "poor man's sociobiology" (see Williams 1996). (Notice also here again the commission of the naturalistic fallacy, moving from "makes sense sociobiologically" to "ought to be retained from traditional religion.") At their worst, authors used their scientific theories to lend scientific respectability to their own undisguised animus to religion (see Williams 1994, 37–43; Williams 1989, 228–36). Others, finally, tried to supplant "traditional religion" with their own "scientific myth of evolution" (Wilson 1978, 201).

Sociobiologists who inferred from evolution that the real purpose of human existence was given by natural selection—to survive and reproduce, to live in order to replicate genes—did nothing for their credibility with theologians. Sociobiological approaches to religion tend to fail to consider respectfully or to take seriously the experience, convictions, and commitments of genuinely religious people, their communities, and their traditions.

Catholic Theological Ethics

Given these problems, one can see why theologians have been suspicious of sociobiology. Yet it is an interesting fact that theologians often have engaged in dialogue with positions that were radically un-Christian, or even consciously anti-Christian. This is seen, for example, in long-standing interest in Freud's psychoanalytic theory, or the incorporation of Marxism within liberation theology, or the current fascination with deconstructionism. There is no reason in principle why theology cannot be in dialogue with sociobiology. I would like now to examine areas in which such a dialogue might be fruitful for my own field of theological ethics (or moral theology, the terms are interchangeable). What follows will be sketchy and overly simple but will provide the basis for a few summary generalizations about sociobiology and theology.

Keeping the center of gravity here theological, I begin by discussing a few core concepts of Catholic theological ethics and then move to sociobiology. Catholic ethics draws from the major theological themes mentioned above, including the sacramental view of life, the perfection of nature by grace, and the ultimate compatibility of reason with revelation. The general field of ethics tends to distinguish questions of character from the morality of acts, that is, the virtues (What kind of person ought I to be?) from conduct (What kinds of behavior are right and wrong?). The virtues are "habits of the good," according to Saint Thomas Aquinas's appropriation of Aristotle, that allow us to live in a manner that is morally excellent and that thereby tends to promote our flourishing as human

beings (see Aquinas [c.1270–71] 1984, I–II, 55, 3, pp. 53–54). Moral norms governing conduct are structured according to the goods which human beings ought to embrace and promote for the sake of human flourishing, their own and that of other people. *Natural law*, the term used for these norms, is really not a single theory but a tradition that has characteristically understood the moral life to be one in which natural human capacities for the good are developed and expressed.

Both natural law norms and the virtues are understood teleologically, as moving human beings, both individually and communally, toward the human good, or *flourishing*. For our purposes it is crucial to note that both norms and virtues build upon what is considered to be natural to the human emotional constitution. The virtues are habitual ways of acting from the *passions* (or we might also say *emotions*), the natural powers of the person rooted in his or her human nature. Emotions are given particular shape in the life of each individual by the process that Aristotle called "habituation." Virtue is taught; it is not natural in the sense of flowing from human nature spontaneously (cf. Ridley's recent book, *The Origin of Virtue*).

Sexual desire, for example, in the person who has been raised properly takes a virtuous form in chastity; in others it takes a vicious form with lust (both pertain to the married as well as celibate states) (see Ridley 1996). The natural emotion of anger is properly expressed in the ordered mind of the just person but is explosive and destructive in the excessive passions of the "hothead." Courage is a proper response to the emotion of fear, and temperance to desire for food, drink, and other appetites.

Sociobiology and Human Nature

Thomas Aquinas drew upon Aristotle's description of the "passions" because it was the best available science in his day. Theological ethicists today need to function in a similar way by drawing upon the best available accounts of the functional equivalent to the passions.

Sociobiologists are anything but united in their descriptions of human emotions, and this diversity presents difficulties for anyone trying to use them in a way functionally equivalent to the way Aquinas used Aristotle's unified and comprehensive theory of appetite. I will nonetheless venture some generalizations, registered with appropriate modesty, that can be supported by a significant amount of research that has been reported in monographs and scholarly articles in sociobiology. Space does not allow me to provide the argumentation for each of these themes, so I will simply list them and then move on to my discussion of their relevance to theological ethics.

The basic theory of sociobiology, as I understand it, is derived from the Darwinian axiom that animals have been designed by nature to

survive and reproduce. "Maximizing inclusive fitness," the phrase central to neo-Darwinism, includes both "direct reproduction," that is, leaving the greatest number of reproductively viable descendents possible, and also "indirect reproduction," leaving as many reproductively viable non-descendent relatives (Alexander 1987, 81–85). Maximizing inclusive fitness over a lifetime, then, means leaving as many copies as possible of one's genes, or alleles, to replicate in the next generation.

Over many generations, the evolutionary pressure to maximize inclusive fitness shapes patterns of social behavior, and these patterns are consistently passed on to offspring. That is, natural selection favors the social patterns that contribute to the maximization of inclusive fitness. For example, some species produce many offspring and give little or no parental care; others reverse the equation. A number of complicating factors enter into sociobiology at this point, one of which is that strategies to maximize fitness are always relative to certain local environments (or ecological niches). A strategy to maximize fitness in one context might be counterproductive in another.

Sociobiologists argue that selection pressures have deeply affected the human emotional constitution. As extremely complex animals, we are not moved to act through simple causal sequences like the chemical signals that cause insect behavior. Human nature includes psychological mechanisms (the language is awkward) that dispose us naturally to act in ways that tend to promote, or at least not to undermine, our survival and inclusive fitness. Evolution has shaped us, for example, to like food that is sweet (healthy and nutritious), to fear heights, to respond to perceived danger with a fight-or-flight response, to be sexually aroused when given the proper stimuli, and so forth.

It is easier to see how the principle of maximizing inclusive fitness works in insect colonies or nonhuman mammalian behavior, but human behavior is vastly more complex. The sociobiologists do not typically develop an account of the proximate mechanisms that account for the actual influence of genetic proclivities, mediated through human physiology and mentality, on behavior. Sociobiologists tend to argue by proposing a certain outcome that, under specific conditions, would be the optimal means of promoting inclusive fitness. They then make detailed observations to verify that the behavior examined fulfills their predictions. They do not explain exactly how, for example, parents usually come to care so deeply for their children. Future research seems to be headed in the direction of addressing this significant lacuna.

Sociobiologists argue that human nature has been shaped by evolution to include a range of psychological mechanisms relevant to life in social groups. These psychological mechanisms are really general predispositions rather than exceptionless natural laws. We have evolved, other things

being equal, to have a general predisposition to care for relatives more than for nonrelatives and for close kin more than for more remote kin. The theory of *kin altruism*,[2] or *nepotism*, proposes that, more often than not, extensive investment of time and energy in rearing one's own child is the most effective way to maximize one's inclusive fitness (Alexander 1987). It also holds that *parenting strategies* are complicated by the competition for limited resources by multiple offspring and that *investment* is factored to maximize the overall inclusive fitness of all the offspring considered. (Parental investment tends to decline statistically in cases of paternal uncertainty and stepparenting.)

Relations between the sexes are influenced by psychological mechanisms promoting the acquisition of and formation of alliances with optimal mates. Sexual dimorphism represents the biological effect of different mating strategies. It is argued that male mating strategies, focusing on resource acquisition and provisioning, differ strikingly from female mating strategies, which concentrate on physical attractiveness, youthfulness, and so forth (Buss 1994).

We also have evolved as a species to seek social approval and companionship, to form in-group bonds, to cooperate with others, to make agreements with others and to have negative emotions when these agreements are violated, and so forth. We have evolved to naturally care more for those who reciprocate than for those who do not, the "cheats" and "grudgers" as Dawkins calls them (Dawkins 1976, 198ff.). We are generally more willing, other things being equal, to show forbearance toward in-group members than toward out-group members who perform the same act. According to sociobiology, these behavioral patterns are not the product of individual conscious decisions but rather the result of a willingness to act on widely shared internal dispositions to act thus that are rooted in human nature and shaped by natural selection.

Sociobiology and Theological Ethics

In my extremely brief summary I have avoided suggesting that sociobiology offers normative suggestions, tries to debunk conventional norms, or provides a mythic view of human life—all of which particular sociobiologists have done. Nor have I discussed the use to which particular philosophers like Michael Ruse (1994) or J. L. Mackie (1978) have put sociobiology. I have focused on sociobiology as a descriptive and explanatory enterprise in order to examine how it might contribute to theological ethical reflection.

In this regard, I think sociobiology, if the claims made above are shown to be plausible, can shed light on the passions or underlying emotional predispositions that influence human behavior, sometimes quite profoundly. Unlike some sociobiologists themselves, who have taken an

imperialistic view of their discipline, my expectations are quite limited. Sociobiology can be helpful in certain modest respects to the extent that it provides principles for understanding aspects of human behavior and the motivation underlying it.

By *principles* I mean elements of our evolved nature that according to sociobiology have a tendency to influence human behavior, for example, preference given to close kin. The principle of *kin preference* can be and often is overridden by other considerations, for example, individual ambition, personal dislike, preference for friends, and so forth. Principles such as kin preference function as innate *proclivities* and not as deterministic causes, so they have only a *tendency* to influence some behavior. Sociobiologists have gotten into serious trouble when they have tried to show that, despite appearances, these proclivities are universally dominant; for example, Wilson has proposed that Mother Teresa's service to the poor of Calcutta was really just a deceptive appearance that hid the selfish pursuit of her own self-interest (Wilson 1975).

Recourse to general proclivities might seem excessively modest, but the fact is that we can see all around us the broad and powerful influence of kin preference. Why do people often favor close family members over strangers? Kin preference evolved because it conferred an evolutionary advantage on those who displayed it as a behavioral trait. It has become part of human nature through the evolution of the species, and it is not simply the product of culture and socialization.

It is especially important to note that the descriptions of human nature mentioned above should not be taken to infer that we are fated to act according to them. Culture is enormously influential in the playing out of evolved predispositions. It is not just "held on a leash by genes," as Lumsden and Wilson once put it (1981, 13), but rather is powerfully influential on how and even whether these natural predispositions affect human behavior. Culture has made possible communities of celibate friars, pacifist Amish, and ascetic Buddhist monks, all displaying lifelong behavior that typically runs against the grain of inclusive fitness.

Morality and religion are central cultural forces shaping human behavior. To return to the earlier language of Thomas Aquinas, the emotions can be habituated in radically different ways, depending on what patterns and processes of training and habituation are employed. At the same time, people are not blank slates, and there are limits to what people can be trained to be and do. One of the significant contributions of sociobiology is its insistence that nature, in addition to channeling human emotions in certain directions, sets down limits to our emotional capabilities. We cannot, for example, expect to love all people equally or to be committed equally to the well-being of all that we encounter. Better understanding of what is possible for human beings

can reduce moral expectations and alleviate misplaced feelings of guilt for failure to be sufficiently altruistic.

This having been said, we have to be wary of specific sociobiological claims about human capabilities, because sociobiologists tend to slide too easily between descriptive and normative discourse. Perhaps more precisely, we have to be cautious when encountering efforts to extrapolate from descriptive sociobiology to particular normative conclusions.

Philosopher Michael Ruse's treatment of the Christian love command is a case in point (Ruse 1994, 5–24). What he calls the "strong interpretation" of the Christian love command requires love of neighbor as oneself and requires Christians to count themselves as one and only one person among others (Ruse 1994, 16–17). The "weak interpretation," on the other hand, requires love of self, family members, and friends. Ruse argues that the weak interpretation is supported by our evolved emotional predispositions and that the strong is not, and that the former is ethically legitimate and the latter is not. Indeed, he regards the latter as "unacceptable" (p. 17), "irresponsible" (p. 19) and "morally perverse" (p. 19) because it runs so strongly contrary to what he perceives as our natural moral predispositions.

From the standpoint of theological ethics, Ruse has made several fundamental mistakes in his chain of reasoning. First, only a very selective and partial reading of the New Testament sources supports his weak and strong scheme of categorization. Throughout the Bible various appeals are made to self-love, to love of family and friends, to care for members of one's own community, and to care for the marginalized, for example, the poor, widows, orphans, and alien workers. New Testament passages that endorse love of friends, such as chapter 15 from the Farewell Discourse in the Gospel of John, also require radical self-sacrifice. And those passages which support the strong interpretation, such as the command to love enemies in Matthew's gospel, also strongly endorse love for friends, at least fellow members of the Christian community. Throughout the New Testament, love for self is hardly mentioned. Love for family, friends, and all other neighbors is secondary to the object of the first half of the double love command. We are to love God above all else. All other objects of love are to be loved in a secondary way; as Augustine put it, they are to be loved "for God's sake" (Augustine [427] 1958, 18).

Ruse also mistakenly attempts to infer ethical legitimacy from given emotional predispositions. Emotional predispositions are not moral but rather are premoral, having their origin not in ethical principles but in natural selection. Human flourishing can occur only when the emotional predispositions are expressed in keeping with our moral ideals. These moral ideals are what the philosopher Harry Frankfurt (1971, 6–13) calls our "second order desires," which are determined from

ethical and theological reflection, not scientific research or speculation. Natural emotional predispositions, in other words, are simply the raw material for ethical reflection, not primary directives for the moral life. Moral inquiry discerns good and evil in human life as distinct from what serves or does not serve inclusive fitness, and it is imperative to distinguish clearly the former from the latter.

Human evil is of particular interest to sociobiology, apparently in part because it often seems to constitute counterevidence to the operation of inclusive fitness. For this reason there is no need to be depressed at the realities of the dark side of human nature on which sociobiologists sometimes focus, for example, cheating, lying, and stealing; the aggressive capabilities for violence, rape, and war; and the impersonality of sexual opportunism or the disloyalty of adultery. Moral theology does well not only to acknowledge the existence of evil but to understand better its causes and conditions. In this sociobiology might be helpful—for instance, if it can offer a better understanding of the conditions that lead to unjustifiable harm or of those that might lead to its avoidance.

Good and evil are determined in light of the full range of goods that support human flourishing. In Catholic theology these include the three classic goods of the mind, the body, and external social life: education, health, and honor, respectively. But they also include the good of eternal life with God, especially the eschatological end that in the Christian religion has traditionally been much more important than temporal flourishing. The comprehensive vision of the human good includes the range of goods that constitute human nature in its totality, spirit as well as body.

Sociobiology might help us to understand aspects of our bodily goods as well as why and how we pursue some goods of the mind and external goods. Perhaps, for example, it points to mixed motives underlying what some have called the "moralistic aggression" that is sometimes found in religious communities, or explains how altruism builds reputation that can in turn be used for self-interested purposes. Sociobiological analysis of evolved emotional predispositions alerts us to forces within us, perhaps very deeply within us, that work against our better intentions.

Sociobiology helps to make us aware of our innate susceptibility to temptations to evil, but it also makes available a better understanding of forces within us that can be directed to the good. The human capacity for altruism is a case in point. Kin altruism has often been taken in a negative way as indicating a tendency to engage in nepotism, callousness toward and manipulation of nonkin, myopic moral concern, and extended selfishness. The positive side of kin altruism has not been given as much attention, but it does suggest that there is a deeply natural basis for love within the family that can be developed and strengthened by proper commitment, training, and habituation.

Familial love is the scene for a host of virtues that are central to moral excellence: honesty in communication, loyalty to one another, self-transcending service, compassion for those in needy moments or in crisis, respect for one another's property, and so forth. Sociobiologists do a disservice to these and other noble elements of family life when they reduce it to an intense form of "nepotism" and when they stress the family exclusively as the scene of competition, egoism, and deception. Both noble and egoistic elements exist within the family and express possibilities latent within the repertoire of the human emotional constitution.

Conclusion

Thomas Gilbert identifies three general seminal questions: How should I live? Why? and How does the world work? Gilbert connects the first question to morality, the second to religion, and the third to science. All three together and in their interconnection constitute a worldview (there is also a fourth question that concerns validation). The third question is clearly the one for which sociobiology is most likely to provide some assistance. Sociobiology is clearly concerned with its subquestions, such as, "What are the causal relationships between observed events?" "What are the causal relationships between our actions and their consequences?" (Gilbert and Moore 1997). As I have suggested sociobiologists have made a gross error in attempting to provide direct answers to the other two questions, which are the domain of ethics and theology, respectively.

Yet these three questions, though distinct, are by no means either isolated or isolable from one another. Sociobiology certainly poses questions for reflection in the first domain, for example, regarding how one ought to live in light of what sociobiology discloses about the innate predispositions underlying some important human behavior. How, for example, might one develop appropriate moral norms guiding homosexual activity, given recent evolutionary discussions of the possible genetic and biological basis of homosexuality as an innate sexual orientation? This question and questions like it emerge from ethical reflection on sociobiology rather than from sociobiological inquiry proper, which as the scientific study of the biological basis of social behavior is not concerned with normative issues.

Sociobiology also raises questions for reflection in the second domain, the religious; for example, what ought one believe about the benevolence of God given the indifference of nature as discussed by sociobiology? How can one understand the notion of *soul* in light of the evolutionary interpretations of the person? These challenges to theology, it should be noted, emerge from theology itself and not from sociobiology, which is methodologically excluded from considering properly theological notions like God and soul.

If it has trouble asking these kinds of questions, sociobiology is even less equipped to provide satisfying answers to them—satisfying, that is, in terms of the standards or "validation criteria" for theological and moral argumentation (Gilbert and Moore 1997). The standards for theological argumentation—including those developed in biblical studies, historical theology, systematic theology, and moral theology—comprise a range of disciplines that are radically beyond the purview of sociobiologists and their morally inclined allies.

The conclusion of this paper, then, is first, that the object of sociobiology, particularly human social behavior, provides the context for theological and ethical reflection. Sociobiology itself can provide helpful insights into evolved human emotional predispositions, and these insights offer grist for the mill of theological ethics. As suggested above, sociobiologists provide suggestive lines of thought regarding the limits imposed upon human agency and moral concern, the ambiguities typically underlying human motivation, and the positive potential of certain evolved emotional proclivities, such as kin altruism and reciprocity, that might be expanded and habituated in virtuous directions by deliberate moral training.

Unfortunately, sociobiologists have all too often discredited their own descriptive work when they have attempted to venture into unfamiliar normative realms. In conclusion, I believe that a serious commitment on the part of theologians and ethicists to more careful and sustained investigation of sociobiology might encourage more mutual interest and perhaps even collaboration, a mode of inquiry that is absolutely necessary if progress is to be made in understanding the relevance of sociobiology to theological ethics.

NOTES

1. For further reflection on these issues, see Hefling 1996, 105–26.
2. For implications in theological ethics, see Pope 1994.

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