

Paper Title: Sociobiology and Christian Virtue

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This paper was prepared for "Science and Religion: Global Perspectives", June 4-8, 2005, in Philadelphia, PA, USA, a program of the Metanexus Institute (www.metanexus.net).

Abstract:

Christian theology divides the virtues into two categories: a) Theological – (Faith, Hope, Charity); and b) Human – (e.g., Prudence, Justice, Fortitude, Temperance). These cardinal human virtues are spiritually nurtured and nourished by the theological virtues (2 *Peter* 1:4), the greatest of which is love, or charity, as we are told by Saint Paul (1 *Corinthians* 13:13). Sociobiology is the interdisciplinary life-based collection of sciences that purports to provide a scientific basis for the explanation of behavior in both humans and animals. Although it has a certain affinity with the Social Darwinism of the 19th century, and enjoyed a kind of limited existence in scholarly scientific journals with the onset of the revolution in genetics over a half century ago, it first comes into public prominence with the publication of *Sociobiology: The New Synthesis* by Harvard entomologist Edward Wilson in 1975.

In this paper I examine the major Christian virtues through the interpretive prism of sociobiology. Although the sociobiological literature focuses heavily upon the response of altruism to the pressures of Natural Selection, something can be said about each of the virtues. Charity or altruism reaches its apex in the moral superiority of self-sacrifice. Sociobiological reasoning credits such extreme gifts of self as biologically disadvantageous to the selfish goal of the genes to replicate and perpetuate themselves. Wilson accentuates this genetic theme with the colorfully worded reminder that fallen heroes do not bear children. Or as baseball great Leo Durocher once put it: Nice guys finish last!

I also consider the charge that sociobiology is unscientific. As embodied beings our human nature possesses a necessary biological correlate, yet we must resist the temptation to conflate necessary with sufficient conditions. Just because there is a biological component to our thought, word, and deed, it doesn't follow that we are slaves to the hypothalamus or the limbic system of the brain. If we are indeed a mysterious union of body, soul, and spirit, then what God has joined together let no entomologist put asunder.

Biography:

Glenn Statile is an Assistant Professor of philosophy at St. John's University in New York City. He concentrates mostly in the areas of the History and Philosophy of Science and in Science and Religion. He graduated from Fordham University with a B.A. (1990), and received a doctorate from CUNY in 1998 with a dissertation on Cartesian science. He has published in *The Philosophical Forum* and has an article coming out this June in

International Philosophical Quarterly. He is the coeditor of two books: *The Tests of Time* (Princeton University Press) and *The Journey of Metaphysics* (Pearson – imprint of Prentice Hall). He has lectured and presented papers in various locales, both nationally and internationally (Rome, 2000). Over the past four years he has lectured on the topic of faith and fiction at the Pastoral Institute in Queens, New York and has appeared on two television shows dealing with Christian art. In the summer of 2004 he was a tournament director for the U.S Women’s Chess Championship, which was held at St. John’s University.

Paper:

1) INTRODUCTION

Sociobiology purports to be able to give an explanation of human action that is in accord with evolutionary theory. My aim in this essay is to illuminate the sociobiological status of the three theological and four cardinal human virtues which underscore moral action. This task is not completely novel to the extent that much ink has already been spilled over the sociobiological interpretation of altruistic behavior. Not as much sociobiological attention, however, has been paid to the so-called lesser of the theological virtues (faith, hope) or the cardinal human virtues (prudence, justice, fortitude, temperance). And since moral theology accords charity (altruism) a privileged position among the theological virtues (1 *Corinthians* 13:13), which as a group nourish and nurture the human virtues (2 *Peter* 1:4), it should also prove interesting to see whether there might exist any sociobiological connections between any of the virtues.

Sociobiology represents a synthesis of various life science disciplines, tied together by the unifying principle of a genetically updated and nuanced Natural Selection. Its express purpose is to provide a biological basis for social behavior in both humans and animals. One might surmise sociobiology to be a renewal of Social Darwinism, but this time around its Spencer comes equipped with more than a century of new scientific ammunition. The name “sociobiology” itself was first coined by John Scott in 1946, and was employed intermittently in technical articles over the next several decades. It comes into public prominence in 1975 with the publication of Edward Wilson’s *Sociobiology: The New Synthesis*. This book followed up on the suggestion of an expanded science first broached by Wilson in *The Insect Societies* (1971), but it is not until the last chapter of *Sociobiology* that the implications of sociobiology for human culture are first sketched. With the publication of *On Human Nature* in 1978, Wilson sharpens the interpretive scalpel of sociobiology so as to penetrate more deeply into the details of the biological origins of human culture. Since then Wilson has published numerous books and articles which collectively represent an attempt to achieve three primary sociobiological goals: 1) To deliver on the early promise of sociobiology; 2) To articulate an attitude of optimism for a future that is pledged to carrying out the sociobiological agenda; and 3) To defend both sociobiology and his own reputation against defamation. While Wilson is by no means the only exponent of sociobiology, he is undoubtedly a highly visible point man for a renewed Darwinian assault on the integrity of religious belief.

2) SOCIOBIOLOGY AND ITS DISCONTENTS

The first order of business should be to revisit the issue of the scientific status of sociobiology. After all, if sociobiology does not qualify as scientific then it poses at least no scientific threat to a religious view of the virtues. Since its debut in the popular scientific press thirty years ago a number of sociobiological issues have drifted into the domain of evolutionary psychology. Critics of sociobiology charge it not only with being wrong but also as lacking the credentials to merit being classified as a science. Even Herbert Spencer, a leading advocate for the application of evolutionary thinking to the social sphere, once acknowledged the quasi tautological character of his own survival of the fittest motto. Only the fittest survive, whereas only those who survive are deemed to be the most fit. The theoretical Achilles' heel of sociobiology has always been its purported resistance to falsification. Karl Popper relied upon his own falsifiability criterion in labeling disciplines like Freudian psychoanalysis and Marxism as pseudosciences. Sociobiology is said to suffer from the same type of drawback. It was not until 1978 that Popper would even admit that Darwin's mechanism of Natural Selection could be scientifically tested. But for him sociobiology remained pure ideology, which to many critics meant that it was non-scientific and that it promoted a neo-conservative, racist, and sexist survival-of-the-fittest moral agenda.¹

Popper of course did not stand alone. Many scientific enemies of sociobiology deny its falsifiability and hence its prerogative to don the mantle of science. Sociobiology relies heavily upon an array of different selection mechanisms in addition to Natural Selection. These can in principle be used to fit almost any set of genetic facts. Such salvage operations are reminiscent of the Quine-Duhem proposal which allows for a modification of the auxiliary hypotheses of a theory in order to leave its non-negotiable theoretical core intact.

Furthermore, sociobiological theory is too quick to convert necessary into sufficient conditions. As we are embodied beings it is not unexpected that there may be necessary biological correlates and contributions to our behavioral and cognitive dispositions. This doesn't mean however that all biologically based explanations are de facto explanatorily sufficient. The old James-Lange war is still being waged. William James long ago considered the issue of whether the emotion of fear was a cause or an effect for the flow of adrenaline. Today we might point to the hypothalamus and the limbic system as materialistic sources of emotional activity, but our Cartesian sensibility, for better or for worse, has not been completely eradicated despite the best shots of the behaviorist tradition. While the philosophy of the last half century has done much to discredit the so-called Cartesian myth of the ghost in the machine, the epigenetic pathways and rules posited by Wilson to connect genes with behavior are still no more than hypothetical missing links between our biological substrate and our sense of self.

In *The Descent of Man* (1871) Darwin gave an evolutionary explanation for the source of our morality which brought together two of the leading moral theories of his day, moral sense theory and utilitarianism.² He contended that Natural Selection favors those social instincts which promote reproductive success. This, he thought, forms our moral sense. Moreover, such a moral sense would purportedly know which instincts are advantageous to the individual in a way which is comparable to a utilitarian calculation. Thus Darwin thought to have supplied a biological or naturalistic basis for moral theory

which intrinsically identifies *is* with *ought*. Both Hume before him and G.E. Moore after him did not and would not license such a logical move. For Hume however this logical leap from descriptive statements to prescriptive norms led to moral skepticism, whereas for Moore it led to a rationalistic interpretation of a real source of moral good. But as anyone who has studied the history of ethics knows, moral sense theorists such as Francis Hutcheson never did disprove the traditional Christian Natural Law approach to ethics. They merely gave it an empirical twist by adding another sense to our perceptual apparatus, while ignoring the issue as to the possible origins of Natural Law precepts. Just as Fred Hoyle's Steady State theory represented an attempt to counter the theological implications of the Big Bang via a continuing ad hoc creation of new matter, moral sense theory was motivated by a desire to counter the theology underlying Natural Law theory by an ad hoc creation of a new sense. Darwin offers an evolutionary substitute for the metaphysical foundations of Natural Law which is no better and no worse than his case for supplanting God with Natural Selection.

Richard Dawkins' brave new world of memes, the cultural counterparts to genes, brought forth a whole new way to deny the Shakespearean style insight that our faults lie not in our genes, or in our memes, but in ourselves.³ The sacrifice of a martyr, for example, might be explained genetically, in terms of William Hamilton's calculus of Kin Selection, or memetically, as the result of a martyr-meme attempting to replicate itself. Dawkins has been accused repeatedly of slipping into self-contradiction for his advocacy of the view that sexual activity, while it represents a *prima facie* case of genetic programming, can nevertheless be kept under control. This is an interesting argument but obviously not one that coincides with the main thrust of his materialism. While the blood of martyrs may be the seed of the Church, as Tertullian attests and Wilson quotes, its flow doesn't seem to square with a genetic calculus which says that the lives of two brothers are genetically equivalent to one self. This genetic quantification once led the famous British biologist J.B.S. Haldane to joke that he would not lay down his own life for less than three brothers or nine cousins. And for those who would argue that morality is the result of memetic or cultural evolution, this begs the important question as to the moral presuppositions that go into the forging of a culture in the first place.

A good example of the falsifiability criticism leveled at sociobiology is the so-called "just-so" story. Stephen Jay Gould and Richard Lewontin, no friends of religion themselves, once accused their Harvard colleague Wilson of concocting a sort of scientific mythology in order to support his conviction that Darwinian principles can be extended to all of human culture. When a behavior occurs it is assumed to be both maximally adaptive and maximally advantageous. Presumably then there must have existed some set of environmental constraints in the past which selected for this behavior as biologically the best. Everything must have been just so in order for things to be what they are now. If the salmon, for example, spawns only once and dies in the process, then the previous history of the species must have been constrained by circumstances to promote the selection of this kind of behavior.⁴ Another technique of Wilson's along this line is his postulation of whatever genes he needs in order to account for various types of behavior without a shred of evidence that such DNA sequences actually exist. He refers, for example, to an anthropologically ancient mutant gene which he labels the Good Samaritan gene in *Sociobiology*. Due to this mutation occasional human slips into altruistic behavior, relative to the majority of our actions which are selfish, need not be

explained in terms of a principle of *imago dei*. But while genes as segments of DNA which code for proteins do exist, the imaginary constructs proposed by Wilson are more reminiscent of the Mendelian approach in which distinct genes are said to correspond with observable features of the body. Still another technique involves his arbitrary invocation of what he calls the multiplier effect in which small discrepancies among genotype frequencies are multiplied as needed in order to account for a wide variety of cultural effects. The multiplier effect thus kills two birds with one stone, as it both explains the diversity in human culture and also the fact that cultural changes appear to occur too rapidly in relation to the genetic stability prescribed by the Hardy-Weinberg law, the so-called first law of population genetics. As to why the multiplier effect does not seem to be operative in the remainder of the animal kingdom despite a biological kinship with humans, Wilson creates another effect, the threshold effect.⁵ This effect stipulates that a minimal level of complexity is a prerequisite before the multiplier effect can be triggered. And just as Plato's ontology did not include Forms for things completely lacking in any degree of perfection, Wilson's odd materialistic brand of genetic idealism cannot assign a genetic Form for maladaptive behaviors such as social unrest.⁶ To do so would be inconsistent with evolutionary explanation. Not to do so is at odds with the general sociobiological thesis that all cultural expressions are grounded in the genes. To be fair, Wilson in his writings does try to address each and every one of the criticisms brought against him, and the fair reader should read what he has to say before reaching a verdict.

Let me conclude this section with a quote from the manifesto of the Sociobiology Study Group, which included many of Wilson's most virulent opponents.

"When we examine carefully the manner in which sociobiology pretends to explain all behaviors as adaptive, it becomes obvious that the theory is so constructed that *no tests are possible*. There exists no imaginable situation that cannot be explained; it is *necessarily confirmed by every observation*....Nothing is explained because everything is explained."⁷

3) THE CHRISTIAN VIRTUES

Wilson's sociobiological modus operandi relies upon both homological and analogical connections between humans and other species, some closer and some more distant to us on the phylogenetic scale. Likewise, in moving back and forth between Christian virtues and their sociobiological counterparts we will have to be on our guard so as to be aware of the slippage from a univocal to either an equivocal or analogical use of a term. Instead of being problematic such vagueness and ambiguity can be turned to advantage once we realize that the reason for it may be that there is no legitimate way to transfer a virtue intact or even at all from one discipline or venue to another. Donald Davidson's invocation of a principle of charity in the philosophy of language, for example, trades upon its Christian meaning without meaning the same thing. In this section I want to extract some useful aspects of the meanings of the Christian virtues as they are presented in Part Three of the *Catechism of the Catholic Church*. By so doing the strength or the weakness of any analogy between the Christian virtues and their sociobiological counterparts will become more manifest.

The Theological Virtues

- A) Faith: (#'s 1814 -1816 *Cat.*)
 “Faith is the theological virtue by which we believe in God and believe all that he has said and revealed to us...Living faith ‘works through charity’.”
- B) Hope: (#'s 1817 – 1821 *Cat.*)
 “Hope is the theological virtue by which we desire the kingdom of heaven and eternal life as our happiness...Buoyed up by hope, he is preserved from selfishness and led to the happiness that flows from charity.”
- C) Charity: (#'s 1822 – 1829 *Cat.*)
 “Charity is the theological virtue by which we love God above all things for his own sake, and our neighbor as ourselves for the love of God...The practice of all the virtues is animated and inspired by charity....”

The Cardinal Virtues

The human virtues are habitual skills which enable a person to adequately grapple with the problem of true versus apparent goods. They are the basis of character. Of the four principal or cardinal virtues two can be said to deal with physical drives and have their origin in the body. Temperance governs or controls drives, such as food and sex, which seek pleasure, while Fortitude is responsible for the moderation of our aggression. The other two cardinal virtues, Justice and Prudence, are linked to the soul. Justice works through the faculty of the will, while prudence is a function of the intellect.

- A) Prudence: (#1806 *Cat.*)
 “Prudence is the virtue that disposes practical reason to discern our true good in every circumstance and to choose the right means of achieving it...It is called *auriga virtutum* (the charioteer of the virtues); it guides the other virtues by setting rule and measure....”
- B) Justice: (#1807 *Cat.*)
 “Justice is the moral virtue that consists in the constant and firm will to give due to God and neighbor...Justice toward men disposes one to respect the rights of each and to establish in human relationships the harmony that promotes equity with regard to persons and to the common good.”
- C) Fortitude: (# 1808 *Cat.*)
 “Fortitude is the moral virtue that ensures firmness in difficulties and constancy in the pursuit of the good. It strengthens the resolve to resist temptations and to overcome obstacles in the moral life. The virtue of fortitude enables one to conquer fear, even fear of death, and to face trials and persecutions. It disposes one even to renounce and sacrifice life in defense of a just cause.”
- D) Temperance: (# 1809 *Cat.*)
 “Temperance is the moral virtue that moderates the attraction of pleasures and provides balance in the use of created goods. It ensures the will’s mastery over instincts and keeps desires within the limits of what is honorable.”

4) SOCIOBIOLOGY AND THE VIRTUES

Wilson couches his treatment of faith in terms of sociobiological criticism, explanation, and reinterpretation. He criticizes the shortcomings of religious belief,

attempts to explain its sociobiological *raison d'être* in human culture, and recommends that it be exchanged for a faith in the value of sociobiology itself. He views sociobiology as the Rosetta stone which can decode the hieroglyphics of religious superstition. In the cute phrase of Patricia Williams, religion for Wilson is the poor man's sociobiology. But while faith must be faith-in-something it is also a facet of human nature which predisposes us to fasten our belief upon some desired truth. Perhaps the need to believe in a transcendent reality might partially explain our passion for fiction. Some literary historians have even suggested that the creation of the detective genre in the latter part of the 19th century was due to the need for some kind of surrogate or symbolic figure to represent transcendence in an increasingly industrial world in which the sense of the supernatural was beginning to wane. Wordsworth's romantic paean to nature in *London* 1802 and Thomas Cole's religiously inspired landscapes of the Hudson River Valley were also artistic responses to the same sense of loss. That Wilson recognizes the existence of such a predilection to believe within human nature is evidenced by such comments as "Men would rather believe than know," and "Human beings are absurdly easy to indoctrinate."⁸ For Wilson people need a sacred narrative. In his recent work *Consilience* he will say that the true evolutionary epic is as empowering and ennobling as any religious tale. Wilson disavows that there is any veridical content to religion but believes that religious belief is part of the fabric of human nature.

Wilson equates hope with a destiny that conforms to the imperatives of biology. Hence his focus involves a reinterpretation of Christian hope. He identifies hope with a future that follows the trajectory outlined in our biological nature. His sociobiological sense of hope therefore does not correspond to any concept of religious salvation. The Christian *telos* of salvation and the Darwinian *telos* of survival nonetheless are alike in that they both aim at the prolongation of life. But the type and quality of life is of course completely different in the two cases. Wait just one second. A good biologist will tell no doubt tell you that evolution is blind, and will therefore resist any notion that evolutionary development can be characterized as telic, yet it seems to me that the quest for survival of any kind is suggestive of Final causality. While it is anthropomorphic to talk about the so-called selfishness of a gene which desires to perpetuate itself, such teleological language is nevertheless rampant, at least in the popular biological literature. Wilson and Dawkins are by no means the only thinkers to have tinkered with the language and logic of virtue for their own purposes. For Shakespeare informs us that cowards die many times before their death whereas the brave will only have to taste of death but once, while Machiavelli would have his prince master the virtues of the lion and the fox. In a symposium for theologians and scientists back in 1980 Wilson asserted that his sociobiological intention was to formulate a scientific blueprint for mankind's future that can serve as a substitute for divine prophecy.⁹

Wilson devotes chapter seven of *On Human Nature* to a sociobiological analysis of altruism, or charity.¹⁰ Although altruism has been given pride of place in the sociobiological literature, this is not due to any overt attempt to acknowledge its Pauline status as the form of the virtues. The ethical practice of assigning a privileged place to one of the virtues was of course not unique to Christianity. In his *Republic* Plato assigns such a role to justice, while in Aristotle's moral theory temperance accompanies all the virtues by acting in the formal capacity of a golden mean. No doubt the sociobiological fraternity is instinctively aware that a blow landed upon the chin of charity is a good way

to challenge the underpinnings of Christian belief. Also relevant is the fact that traditional evolutionary explanation has been built upon a bedrock of aggressive and competitive behavior. Altruism has always been its explanatory Achilles' heel. Wilson's general approach to the virtue of self-sacrificial charity is to argue that less of it is more in regard to the future prospects of civilization, although he does not praise the virtue of selfishness, for example, to the same extreme extent as an Ayn Rand. One important disanalogy between Christian charity and sociobiological altruism is that the latter is not necessarily intentional, and possibly cannot be given Wilson's determinism, whereas the former must be so by definition.

Wilson follows his chapter on altruism in *On Human Nature* with subsequent chapters entitled "Religion" (chapter 8), which can be thought of as dealing with the virtue of faith, and "Hope" (chapter 9). He must have been undoubtedly aware that this triadic grouping of chapters would be recognized for what they represent, the theological virtues. Within the economy of sociobiological virtue it is no mere accident that the chapter on altruism precedes those on faith and hope, for the latter two virtues are intrinsically connected in Wilson's thinking to the anthropology of altruism. Altruism functions as a kind of master virtue, even in sociobiology. But even though altruism is the analytical cornerstone of the sociobiological strategy for dealing with issues of human morality, Wilson's recent works such as *The Future of Life* are replete with the echoes of his own faith and hope for the prospects of a humanity which surrenders itself to the truth of sociobiology.

The cardinal virtues, except for justice, are more intractable to sociobiological analysis than are the theological virtues. It is interesting to note that the virtues of temperance and fortitude are associated with the function of the body in both Christian moral theology and in sociobiology, that is if we assume that these Christian virtues actually do have sociobiological counterparts. The other two Christian virtues, prudence and justice, have their provenance in the soul, which for Wilson is but an antiquated relic of a bygone era. Hence it is kind of ironic that it seems fairly easy to cast the virtues of prudence and justice in sociobiological terms, whereas the corporeal temperance and fortitude offer more resistance. This statement is a little unfair in the case of justice however since the concept of sociobiological justice with which I will be dealing has to do with the consequences for society of limited altruism and not with the specific moral judgments of individuals toward others.

Prudential judgment as right reason could be construed as activated in Reciprocal Selection calculations of a game-theoretic nature, owing to the evolutionary mechanism first introduced by R.L. Trivers.¹¹ It is this mechanism upon which Wilson's hope for sociobiological salvation is based. And yet as Trivers' seminal paper clearly illustrates, the logic of Reciprocal Selection must take account of the costs and benefits to be derived from such vices as cheating and lying. Temperance, customarily the rational regulation of desire, might be translated as the recognition of just how much selfishness or little altruism is optimal for sociobiological purposes. This interpretation of temperance is perhaps applicable to situations in which Wilson refers to the sociobiological prospects for "global harmony." On the other hand, since evolution is all about the maximization of reproductive success, the concept of temperance may not seem relevant to its goals. Justice, or the promotion of a sort of sociobiological social contract which enhances human civilization, is intrinsically connected to Wilson's analysis of altruism as well as

his own sociobiological faith and hope in our anthropological and planetary prospects for longevity. One of the features of Christian fortitude is that it predisposes us to be willing to sacrifice our lives for a just cause. This puts it directly at odds with Wilson's claim that limited or soft core altruism is required to attain the goal of a global civilization. Only a unified planetary civilization he believes can solve the ecological problems that threaten our longevity as a species, and such a unity is not likely to occur if we are altruistically prejudiced in favor of family and friends. Wilson claims that only by possessing a healthy degree of self-interest can the invisible hand of Darwin fulfill the promissory note of *gens una sumus*. Bishop Butler tried to make the case that self-love and benevolence toward others are not contradictory attitudes, but for him this meant that our spiritual self-interest is enhanced by being materially more selfless. While courage or fortitude for a modern or a Christian implies a power to persevere in the face of adversity, a more Homeric conception of courage brings to mind the image of a hypertrophic activation of our aggressive impulses in a moment of great need or peril, such as the heroic revenge of Achilles over Hector for the killing of his friend Patroclus in Book 22 of the *Iliad*. Thus the heroic courage or fortitude to vanquish others, rather than die in their stead, seems to be in better alignment with a strictly sociobiological point of view.

Wilson's own personal sociobiological faith and hope differ from their Christian counterparts only in terms of what is to be believed and hoped, but the attitudes of faith and hope remain the same. Thus there is a change in the objects of faith and hope, from God and salvation to sociobiology and its future potential respectively. Altruism also essentially retains its meaning of benevolence in the switch from Christianity to sociobiology. What is different is Wilson's view as to who should benefit and in what way. Sociobiologically speaking, Wilson views altruism and hope as inversely proportional. A greater degree of altruism in the human species correlates to less hope for our future, while a lesser degree of altruism makes Wilson more sanguine about where we are heading. Let us let Wilson speak for himself.

"My own estimate of the relative proportions of hard-core and soft-core altruism in human behavior is optimistic. Human beings appear to be sufficiently selfish and calculating to be capable of indefinitely greater harmony and social homeostasis. This statement is not self-contradictory. True selfishness, if obedient to the other constraints of mammalian biology, is the key to a more nearly perfect social contract.

My optimism is based on evidence concerning the nature of tribalism and ethnicity. If altruism were rigidly unilateral, kin and ethnic ties would be maintained with commensurate tenacity. The lines of allegiance, being difficult or impossible to break, would become progressively tangled until cultural change was halted in their snarl. Under such circumstances the preservation of social units of intermediate size, the extended family and the tribe, would be paramount. We should see it working at the conspicuous expense of individual welfare on the one side and of national interest on the other."¹²

This passage is replete with terms that illustrate the interconnection of the virtues in Wilson's sociobiological thinking. Words like "calculating," "harmony," "homeostasis," "social contract," and "national welfare" all connote my sociobiologically suggested meanings for several of the cardinal virtues. The inverse relationship which exists in Wilson's thinking between altruism and hope is accompanied by another moral inversion, between mercy and justice. In Christian moral theology justice must always

defer to mercy, a form of charity, while in Wilson's assessment of sociobiological virtue justice is enhanced by its diminution. Wilson's sociobiological slogan that "fallen heroes do not have children" places him squarely within the tradition of baseball great Leo Durocher, for whom nice guys finish last. A Christian moral sensitivity meanwhile would side with the fragility of a Blanche Dubois in Tennessee Williams' *A Streetcar Named Desire*, for whom survival depends upon the kindness of strangers.

Wilson's driving concept behind the title of his book *Biophilia* is that there exists an innate drive or set of genetically based instincts which predispose us to be attracted to life in all of its forms. It is quite interesting that he refers to our biophilic tendency to *focus* upon life issues rather than employ the stronger word *love*. The latter tendency is the greatest of the Christian virtues while the former connotes nothing more than an inbred curiosity akin to Aristotle's sense of wonder concerning the things of this world. There of course is a world of difference between a fascination with something and loving it. Why then does Wilson place such an amorous restraint upon our attraction to living things? One solid response to this question is that if we were epigenetically programmed to love all living things then this altruistic fact about human nature would seem to be inconsistent with the calculus of Reciprocal Selection upon which Wilson seems to pin all of his sociobiological hopes. Wilson could argue that this tendency to be drawn to life in all of its forms might help explain the charge that sociobiology is hard pressed to account for human altruism toward other species. After all, laying down one's life for one's dog will never lead to the perpetuation or the proliferation of one's genes. Trivers claims that Reciprocal Selection allows for the possibility of inter-species altruism, but I just cannot believe that Diane Fossey had any expectation of a *quid pro quo* in mind when she in essence did sacrifice her life for the well being of her beloved mountain gorillas.¹³

Wilson is correct to point out the survival value of religion or faith, but wrong to infer that its content is therefore fictitious. The human eye, once used by William Paley as a means for constructing an argument from Design, also has survival value. But, epistemologists notwithstanding, very few would claim that what we see with our eyes is not real.¹⁴ It may very well be the case that both the origins and the sociobiological dynamics of many simple and sophisticated religions can be subjected to legitimate sociobiological analysis, but this has no bearing on the truth of their content. As for survival value, there is ample epidemiological evidence to support the claim that strong religious convictions are related to the improvement of health. One study by David Larson showed a very strong correlation between attendance at church and blood pressure. Going to church more often led to a large decline in diastolic pressure levels. A mountain of evidence also suggests that there are significant medical dividends to be derived from prayer.¹⁵ Therefore even if religion is ontologically and anthropologically no better than a Platonic noble lie, how could it be sociobiologically disadvantageous if it extends and enhances our reproductive potential by enabling us to live longer and qualitatively better lives? When Wilson claims that few episodes in the history of religion contravene his explanatory sociobiological hypothesis of gene-culture interaction he must think that his empirically minded readers are asleep at the wheel. Where is the proof?

Albert Somit and Steven Peterson present an interesting argument in regard to the sociobiology of justice. They claim that the absence of democratic forms of government

for the majority of recorded history is related to our evolutionary predisposition as a species for greater rigidity and hierarchy in our social and political institutions.¹⁶ Yet the emergence of a principle of subsidiarity within Catholic social teaching over the last century or so is often reputed to be the result of the recent historical move toward a more pronounced hierarchical structure and differentiation within social and political systems. Both views seem to be at odds. In a number of books dealing with the ecological struggle to save our planet Wilson asserts that the democratic exercise of our rational autonomy is of paramount importance in helping us to eventually solve the spiraling energy, population, and environmental problems that stand in the way of the successful stewardship of our planetary habitat. Thus our survival as a species, according to Wilson, is thought to be dependent upon a democratic means of problem solving.

According to the Somit-Peterson thesis Rousseau was wrong when he claimed that we were born free and yet are everywhere in chains. Their own position is just the reverse, namely that we are biologically disposed to fit ourselves into ordered patterns of living. Therefore, either there has been a sociobiological paradigm shift in modernity away from our original genetic orientation to structured living, or it is possible to break free of the genetic chains that bind us. The S-P thesis adds that Reciprocal Selection, which I previously likened to the sociobiological counterpart of the virtue of prudence, working with cultural factors which operate as coevolutionary partners with our genetic profile, now indicates that inclusive fitness favors a democratic way of life. One problem with this type of hybrid cultural-genetic view for sociobiologists is that in the final analysis they all ultimately believe, when push comes to shove, that the genes hold culture on a leash. If this is so then the flexibility of democracy is at odds with our genetic heritage. On the other hand, the autonomy afforded to each individual by democracy to pursue his or her own self-interest is what engenders such enthusiasm in Wilson for the prospects of a global civilization. There is of course a significant anthropological difference between a sociobiological and a Christian interpretation of the value of democracy. From Wilson's sociobiological perspective democracy allows our selfishness full sway, and thus can help break the parochial and patriotic bonds of family and state which stand in the way of a unified world wide civilization. From a Christian perspective democracy is the only form of government fully consistent with the dignity of beings endowed with free will. Wilson's defense of democracy is utilitarian, geared toward consequences, while the Christian recognition of the merits of democracy is predicated upon the precepts of the Natural Law.

A certain circularity can be discerned in the sociobiological relation between justice and altruism. Earlier I indicated that in Wilson's view mankind's future well-being, which I view as tantamount to a claim about justice in a large sense, is dependent upon the continuation of a limited degree of altruism in human relations. Yet in chapter seven of *On Human Nature* he also suggests that a reduction in our capacity for altruism has itself resulted from the perfection of the social contract.¹⁷ In chapter nine Wilson once again touches upon the theme of circularity in his chapter on Hope.

"Human nature is, moreover, a hodgepodge of special genetic adaptations to an environment largely vanished, the world of the Ice-Age hunter-gatherer. Modern life, as rich and rapidly changing as it appears to those caught in it, is nevertheless only a mosaic of cultural hypertrophies of the archaic behavioral adaptations. And at the center of the second dilemma is found a circularity: we are forced to choose among the elements of

human nature by reference to value systems which these same elements created in an evolutionary age now long vanished. Fortunately, this circularity of the human predicament is not so tight that it cannot be broken by an exercise of will.”¹⁸

A problem here arises for Wilson. By an “exercise of will” he does not mean a faculty free of physical constraints. In chapter four of *On Human Nature* he sketches a mechanistic theory of the will which is one part science fiction and two parts pure fiction. For him free will is an illusion caused by the complexity and variability of experience, which in turn makes it virtually impossible for us to predict our future history. He says that the physical basis for the function of volition is a series of feedback loops which send sequences of messages to and fro between our sense organs and certain schemata in the brain. These schemata compete with each other for the right to make a decision. Will is the outcome of this competition. Wilson then goes on to say that “There is no proof that the mind works in just this way....It is entirely possible that the will – the soul, if you wish – emerged through the evolution of physiological mechanisms.”¹⁹ This statement is a bona fide example of Wilson’s momentarily surfacing reason at war with his own rhetoric. Unfortunately, the rhetoric prevails.

In chapter nine of *On Human Nature* Wilson gives a sociobiological spin to the relatively recent historical emergence of universal human rights.

“We will accede to universal human rights because power is too fluid in advanced technological societies to circumvent this mammalian imperative; the long-term consequences of inequity will always be visibly dangerous to its temporary beneficiaries. I suggest that this is the true reason for the universal rights movement and that an understanding of its raw biological causation will be more compelling in the end than any rationalization contrived by culture to reinforce and euphemize it.”²⁰

This argument makes little sense to me. What Wilson is essentially saying is that the locus of power can shift suddenly in a highly technological society, so that today’s master can easily become tomorrow’s minion. Therefore, in accordance with the prudence of Reciprocal Selection, the worst case scenario for anyone can be avoided by adopting a policy of universal rights. As Wilson well knows the entitlement to certain rights in political discourse first began to achieve critical mass in the 18th century. Moreover, the ethical and political arms of the secular Enlightenment were still distillations of the Judao-Christian tradition. So it is by no means true that the initial impetus toward human rights had anything to do with utilitarian considerations of the kind Wilson considers relevant. Are we to believe then that as technology progresses by Malthusian leaps and bounds we are to all of a sudden change our previous religious or early Enlightenment understanding as to why universal rights should be favored by everyone, or possibly even assume that our longstanding humanitarian rationale is nothing more than a matter of self deception? For just about every religiously based moral explanation that Wilson might criticize as objectively unfounded, his critics can offer evidence that his sociobiological version of the same situation is standing on equally shaky scientific ground. At best Wilson can claim, to borrow the language of Kant, an antinomial dead heat.

Wilson considers the reciprocity which exists between the virtues of faith, in the form of religion, and altruism. Once a religion is founded its prospects for survival, according to Wilson, depend upon a set of factors which he calls the ecclesiastical, ecological, and genetic levels. The first two of these levels correlate to cultural and

environmental factors respectively. The genetic level consists of varying degrees of a hereditary predisposition toward both altruistic behavior and a tendency towards religious belief. If a statistically significant percentage of a religious group is biologically motivated toward limited or soft core altruism, then this will work against the survivability of the group whose values intrinsically favor the promotion of altruism of the hard core variety, which is marked by a commitment to self-sacrificial behavior on behalf of a community of believers. If the genetic dice are stacked in favor of both creedal needs and strong altruistic commitments, then the only potential genetic threat to the vitality of such a group would be a mutational shift in the genetic frequency within the population toward higher levels of soft core altruism or lower levels of susceptibility to indoctrination. While Wilson prophetically predicts the eventual demise of theology, as due to the eventual sociobiological recognition that there is no external source of reality, he doubts that the biological pull toward religious belief will ever become extinct. It is rather curious then to have him admit that God will always remain a viable hypothesis.²¹

5) CONCLUDING REMARKS

Wilson's apostasy from Baptist belief provided the stimulus for his unrelenting sociobiological assault upon the foundations of religious sensibility. Religion by no means enjoys a monopoly in producing persons who adhere to the stereotype of the fundamentalist. Scientific fundamentalists abound, for they are those who take great pleasure in poking fun at religious convictions, even though they themselves have nothing but their own atheistic prejudices to sustain them. One of the many reasons why I enjoy working in the area of science and religion is because it affords me the opportunity to try and take some of the fun out of that type of fundamentalism. I believe that the proponents of both science and religion would do very well to follow the example of the Chesterton brothers. G.K. Chesterton once said, in describing his relationship with his brother, that while they always argued they never quarreled. This I would argue is a good place for me to finish, especially here in Philadelphia, the city of brotherly love.

NOTES

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- 1 Karl Popper, "Natural Selection and the Emergence of Mind," *Dialectica* 32, pp. 339-355. See Ullica Segerstrale, *Defenders of the Truth: The Battle for Science in the Sociobiology Debate and Beyond* (Oxford: Oxford University Press, 2000), p. 74.
 - 2 Barry Schwartz, *The Battle for Human Nature: Science, Morality and Modern Life* (New York: W.W. Norton and Company, 1986), p. 90.
 - 3 Richard Dawkins, *The Selfish Gene* (Oxford: Oxford University Press, 1976).
 - 4 Schwartz, *The Battle for Human Nature*, pp. 190-191.
 - 5 Sociobiology Study Group, "Sociobiology: A New Determinism," in *Biology as a*

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- Social Weapon*, edited by the Ann Arbor Science for the People Editorial Collective (Minneapolis: Burgess Publishing Company, 1977), p. 147.
- 6 Elizabeth Allen et al., “Against ‘Sociobiology’,” in *The Sociobiology Debate: Readings on Ethical and Scientific Issues*, ed. By Arthur Caplan (New York: Harper and Row, 1978), p. 261. I must note that I have also come across the term “genetic idealism” elsewhere. See John and Janice Baldwin, *Beyond Sociobiology* (New York: Elsevier, 1981), pp. 6364.
 - 7 Sociobiology Study Group, op. cit., pp. 145-146.
 - 8 Edward Wilson, *Sociobiology: The New Synthesis* (Cambridge: Harvard University Press, 1975), pp. 561-562.
 - 9 Edward Wilson, “The Relation of Science to Theology,” *Zygon*, 15, pp. 425 – 434.
 - 10 Edward Wilson, *On Human Nature* (Cambridge: Harvard University Press, 1978).
 - 11 R.L. Trivers, “The Evolution of Reciprocal Altruism,” *Quarterly Review of Biology*, 46, pp. 35-57.
 - 12 Wilson, *On Human Nature*, p. 157.
 - 13 Robert Trivers, “The Evolution of Reciprocal Altruism,” in *The Sociobiology Debate: Readings on Ethical and Scientific Issues* (New York: Harper and Row, 1978), p. 217.
 - 14 Thomas King, S.J., and Edward Wilson, “Religion and Evolutionary Theory,” in *Religion, Science and the Search for Wisdom*, ed. By David Byers (Washington D.C.: National Conference of Catholic Bishops, 1986), p. 92.
 - 15 Patrick Glynn, *God: The Evidence – The Reconciliation of Faith and Reason in a Postsecular World* (Rocklin, Ca.: Forum, 1997), pp. 79-97.
 - 16 Albert Somit and Steven Peterson, *Darwinism, Dominance and Democracy: The Biological Bases of Authoritarianism* (Westport: Praeger, 1997).
 - 17 Wilson, *On Human Nature*, p. 156.
 - 18 Wilson, *On Human Nature*, p. 196.
 - 19 Wilson, *On Human Nature*, pp. 76 – 77.
 - 20 Wilson, *On Human Nature*, p. 199.
 - 21 Wilson, *On Human Nature*, p. 205.