ALTRUISM AND CHRISTIAN ETHICS

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CAMBRIDGE
UNIVERSITY PRESS

PUBLISHED BY THE PRESS SYNDICATE OF THE UNIVERSITY OF CAMBRIDGE
The Pitt Building, Trumpington Street, Cambridge, United Kingdom

CAMBRIDGE UNIVERSITY PRESS
The Edinburgh Building, Cambridge CB2 2RU, UK www.cup.cam.ac.uk
40 West 20th Street, New York, NY 10011–4211, USA www.cup.org
10 Stamford Road, Oakleigh, Melbourne 3166, Australia
Ruiz de Alarcón 13, 28014 Madrid, Spain

First published 2001

Printed in the United Kingdom at the University Press, Cambridge

Typeface Baskerville 11/12.5 pt *System* 3b2 [CE]

A catalogue record for this book is available from the British Library

ISBN 0 521 79144 8 hardback

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CHAPTER I

Explanations for altruism

There is no shortage of evidence to suggest that we are fundamentally, and all but irreparably, characterized by selfishness. If reports of consumptive greed and callous disregard for the obvious distress of others do not clinch the point, the representations of science, particularly the portrayals of sociobiology, confirm that impression beyond any reasonable doubt. This emerging discipline shows how altruism is fundamentally unnatural, an aberration that runs directly counter to the natural flow of life.

THE IMPOSSIBILITY OF NATURAL ALTRUISM

Sociobiologists contend that the altruism that concerns them is not the everyday variety of one agent assisting another agent, perhaps at significant cost to the assisting agent. At its most basic, the biological point of life is more life, reproduction. Consequently, from this perspective, altruism refers to one organism enhancing the reproductive advantage of another, especially at cost to itself. Yet this biological restriction has a way of encompassing broader, more conventional senses of the term that far exceed issues of reproductive advantage and disadvantage.

From a biological point of view, altruism should not exist. The Darwinian theory of natural selection holds that those organisms survive and reproduce which are best adapted to their environment. They are "selected" by the natural processes of geography, climate, food supplies, predation, etc. Any organism that devotes itself to the welfare of other organisms, to that

extent jeopardizes its own prospects for reproduction and enhances those of the recipient of the assistance. As that trend continues, it would seem that the altruist strain would be bound to be selected out of existence.

The dilemma is given vivid expression through the more precise genetic focus of sociobiology. Through the application of game theory, sociobiologists work out projections for what would happen as more and fewer altruists emerge in a given population. A prominent interpreter of the mysteries of sociobiology to the uninitiated, Richard Dawkins, sketches a widely endorsed reading of the situation through the identification of three behavioral types, tellingly labeled suckers, cheats, and grudgers.[1] How the presence of each would affect a given population, and how each of these types would fare, is projected in terms of an imaginary situation involving a species of bird that is parasited by an injurious and potentially lethal kind of tick. Each bird can rid itself of these parasites on most of its body, but it cannot reach the top of its own head, and so the only solution is for each bird to have its head ticks removed by another bird. And, of course, this is where the different strategies emerge. "Suckers" refers to those birds that will groom other birds indiscriminately. They are complete altruists. "Cheats" are those birds that accept this grooming, but never perform this service themselves. Now the projections indicate that in a population of suckers, everyone will have their head ticks removed, but as soon as a cheat emerges, the situation changes. Cheat genes will begin to spread through the population and the sucker genes will be driven to extinction. For the more cheats there are, the more suckers will go ungroomed, dying from the parasitic infection, and thus having their genes removed from the collective gene pool. The cheats, for their part, thrive as long as there are enough suckers to help keep them tick-free. Of course, as the sucker population declines, the cheats will be affected, but never to the extent of the suckers themselves. "Therefore, as long as we consider only these two

[1] Richard Dawkins, *The Selfish Gene* (London: Granada, 1978), pp. 197ff.

strategies, nothing can stop the extinction of the suckers, and very probably, the extinction of the whole population too.''[2]

The third option, represented by the ''grudger,'' involves grooming those who have groomed them. They never groom a cheat a second time. In a cheat population, grudgers would be almost as vulnerable as suckers. They would spend most of their time practising unrequited grooming, and paying for this with their lives, to the detriment of their own genetic legacy. But when a significant number of grudgers emerges, they will groom each other to the detriment of the cheats, who will be driven to the brink of extinction, but not over, because the lower the population of cheats, the more chance each of these individuals will have of being groomed by grudgers they have not encountered before.

Common sense, and perhaps the lingering legacy of Christian sentiment, might suggest that the ideal evolutionarily stable strategy would be represented by a population consisting exclusively of suckers. This would assure that each bird would be groomed simply because they were in need of grooming. And this might well be the ideal situation. But it is ideal. In the real world, allowance must be made for grudgers and even cheats. But once this is done, as we have seen, the way of the sucker ceases to represent an evolutionarily stable strategy. On the contrary, the way of the grudger holds the most promise for maintaining itself against the interruption of cheats or suckers. The way of the cheat is also equally effective in achieving an evolutionarily stable strategy against grudgers and suckers, but the way of the cheat achieves this at the high price of courting extinction because cheats cannot groom each other. The conclusion to which we are led, then, is that neither pure altruism, nor pure selfishness, offer long-term prospects on their own. The most promising course is the calculative reciprocity of the grudger. This strategy is effective against both cheats and suckers. But as long as there are cheats and suckers as well as grudgers, the cheats are next in order of stability, with suckers

[2] Ibid., p. 199.

coming in a distant third. Their strategy invites exploitation by cheats and receives only marginal support from grudgers.

Thus from the biological point of view, especially as this is sharpened through the genetic focus of sociobiology, the prospects for serious altruism are particularly bleak. The situation cannot be described more succinctly than it is by Dawkins himself.

> Even in the group of altruists, there will almost certainly be a dissenting minority who refuse to make any sacrifice. If there is just one selfish rebel, prepared to exploit the altruism of the rest, then he, by definition, is more likely than they are to survive and have children. Each of these children will tend to inherit his selfish traits. After several generations of natural selection, "the altruistic group" will be overrun by selfish individuals, and will be indistinguishable from the selfish group. Even if we grant the improbable chance existence initially of pure altruistic groups without any rebels, it is very difficult to see what is to stop selfish individuals migrating in from neighbouring selfish groups, and, by intermarriage, contaminating the purity of the altruistic group.[3]

This biological account of altruism accords with the contemporary experience. It is no wonder that self-interest should be the prevailing strategy. We have inherited a genetic bias in this direction. Any inclination to concern for others that might have been present has been diminished by the genetic triumph of the drive to self-preservation and self-enhancement. And yet altruism continues to exist. There are individuals who apparently sacrifice themselves, and *a fortiori* the transmission of their genes, for the sake of others. Why is it that altruism has not been eliminated entirely? This represents what the leading pioneer of sociobiology, E. O. Wilson, calls "the central theoretical problem of sociobiology: how can altruism, which by definition reduces personal fitness, possibly evolve by natural selection?"[4] Indeed, the problem is even more acute than this. For the reality is almost contrary to the picture we have considered in abstract terms. The truth is that in the broad scope of nature, far from altruism having been diminished, the

[3] Ibid., p. 8.

[4] Edward O. Wilson, *Sociobiology: The New Synthesis* (Cambridge, Mass.: Harvard University Press, 1975), p. 3.

reverse would seem to be the case. It is in the most developed species, namely ourselves, that altruism has attained its most striking expression, evoking what Wilson has called the "culminating mystery of all biology."[5] On the premise of modern biology, especially as this is sharpened by sociobiology, altruism should not exist at all, much less have evolved through the process.

The biological problem of altruism is at least as old as Darwin's theory of natural selection. Indeed, even for Darwin himself it constituted the "one special difficulty, which at first appeared to me insuperable, and actually fatal to the whole theory."[6] The altruism that Darwin found so threatening was that of social insects. In bees and ants, for example, worker castes devote their lives to work to the total exclusion of reproduction, and yet these sterile castes reemerge generation after generation. How? Why does such apparent total altruism not result in its own destruction through the lack of offspring? A possible answer is in terms of group selection. Then workers continue to be reproduced because, in these instances, selection takes place at the level of the colony. Workers are an integral part of the colony, and thus contribute to the fitness of the whole group, so that their own lack of reproductive ability is compensated for at the group level. They do not have to reproduce themselves because their lineage is provided for in the reproductive mechanisms of the group.

This identification of a group level as the focus of the selection process represents something of a minority report in modern biology. V. C. Wynne-Edwards contends that its day has come,[7] but even to allow for group selection as a counterpart to the dominant assumptions of individual selection is a concession that does not appear to be forthcoming in any significant measure. To the novice, Wynne-Edwards' claim for group selection can appear to offer a credible way of accounting for the continued appearance of non-reproductive worker

[5] Ibid., p. 362.
[6] Charles Darwin, *The Origin of Species*, 6th edition (London: John Murray, 1888), p. 228.
[7] V. C. Wynne-Edwards, *Evolution through Group Selection* (Oxford: Blackwell Scientific Publications, 1986), p. 357.

castes. "In group selection theory there is no problem about sacrificing the fitness of some individuals if it benefits the fitness of a group as a whole to do so; and this applies not only to vertebrates in changeable habitats but to the special-duty sterile castes of insects as well."[8] Sensible though this might appear to sociobiologically untutored common sense, it does not find favor with sociobiologists. They maintain their focus on individual selection through the concept of kin selection, which might sound like a variation on group selection, but is intended precisely to avoid any compromise of the individual focus.

In a series of articles in the 1960s and early 70s, W. D. Hamilton worked out a theory of kin selection in precise mathematical terms.[9] Because each parent contributes half the genes that make up their offspring, there is a 50% chance that a parent and his or her offspring will share any particular gene. Thus the ratio in the genetic relationship between parent and child is half. Roughly the same ratio holds between siblings, because they share the same parents. For more distant relations, the calculation is more complicated, but the results, genetically speaking, are that there is half of ourselves in our parents, our offspring, and our siblings; a quarter in our uncles, aunts, nephews and nieces, and in our grandparents and grandchildren; one-eighth in our first cousins, our great-grandparents and great-grandchildren.

The significance of these degrees of relatedness for sociobiology is that they provide a basis for explaining altruism that is directed to an individual's immediate kin. Thus if a bird risks attracting a predator to ensure the safety of a flock or of her own brood, as birds often do, sometimes feigning a broken wing to lead a fox away from a nest, and leaping into the air at the last possible moment to escape the fox's jaws,[10] or warning a whole flock with an alarm call when a flying predator such as a hawk is spotted,[11] this has all the appearance of dangerous, sacrificial, altruistic behavior. From the genetic point of view,

[8] Ibid., p. 345.
[9] W. D. Hamilton, "The Genetical Theory of Social Behavior," *The Journal of Theoretical Biology* 7 (1964): Part I, 1–16, Part II, 17–32.
[10] Dawkins, *The Selfish Gene*, p. 7.
[11] Ibid., p. 6.

however, it is entirely explicable in terms of gene ratios. A mother bird is not risking anything if her diversionary behavior saves two of her chicks because together they are likely to possess 100% of her genes. Similarly, the bird raising the alarm call is also protecting its own genes if it has a couple of siblings in the flock, or four nieces or nephews or eight first cousins. It is not that a bird calculates these odds, or even deliberately acts in this seemingly altruistic fashion. The level of agency is not the bird but the genes that constitute it, and every other living being, including ourselves. Genes are the ultimate subjects. "They are in you and me; they created us, body and mind; and their preservation is the ultimate rationale for our existence."[12] All plants and animals exist as vehicles for the replication of genes. "We are survival machines – robot vehicles blindly programmed to preserve the selfish molecules known as genes."[13] It is not a group or an individual that is finally at stake in the biological process, but genes. Instances of apparent altruistic behavior in groups or on the part of individuals are really gene strategies. The individuals that are at risk, or appear to put themselves at risk, are probably acting to preserve genes they share with kin. It is kin altruism that is at stake, rather than any pure, self-sacrificing variety.

Kin altruism, by its very nature, only accounts for altruism among close relatives. It is not clear that this covers all apparently altruistic behavior among animals, and it is especially precarious in light of the more wide ranging altruistic behavior that can sometimes characterize human actions in particular. The difficulty that is especially evident with human altruism is that there may be no apparent relationship between the altruist and his or her beneficiary and so no apparent rationale for the action other than the altruistic one of actually benefiting the other person. Saving a drowning person, who is unknown and unrelated to me, can hardly be attributed to an ulterior strategy promoted by the genetic drive for replication. However, this unlikely situation is also encompassed by the sociobiological explanation of altruism. The mechanism that accounts for this

[12] Ibid., p. 21. [13] Ibid., "Preface," p. x.

is known as "reciprocal altruism." Although the immediate act may appear purely altruistic, in a larger perspective, it can be seen to represent a relatively minor risk to the benefactor, with the prospect that should he find himself in any similar life-threatening situation, he will be more likely to receive the aid he requires. Thus ironically, Wilson suggests that reciprocal altruism "is less purely altruistic than acts evolving out of interdemic and kin selection."[14] Note that the pioneer sociobiologist is pronouncing on "pure altruism," and not the biological, reproductively focused variety.

Thus sociobiology accounts for apparent altruistic behavior with an arsenal of three primary weapons, the two versions of altruism we have sketched and the underlying assumption that the fundamental behavioral orientation is one of self-interest. On the most primary level, behavior generally is self-interested, especially in the form of genetic self-interest. Beyond this, most altruistic behavior among insects, birds, and animals can be explained by the mechanism of kin selection. Finally, wider versions of apparently altruistic behavior, most evident among humans, can be more accurately understood as reciprocal altruism, engaged in with the expectation, at least genetically speaking, of receiving a return in the future, should occasion require it. Thus sociobiology demonstrates the totally illusory nature of the whole notion of altruism. What appears to be altruism is really genetically sophisticated selfishness.

The very thoroughness of this account of altruism might really be indicative of its inadequacy. Perhaps the explanations are simply too good. This is the charge of the Sociobiology Study Group. "There exists no imaginable situation that cannot be explained; it is necessarily confirmed by every observation."[15] Any putative case of altruistic behavior that is not susceptible to the calculations of kin selection is bound to succumb to the unlimited scope of reciprocal altruism.

Even such a comprehensive program as the sociobiological

[14] Wilson, *Sociobiology*, p. 120.

[15] Sociobiology Study Group, "Sociobiology – A New Biological Determinism," in *Biology as a Social Weapon*, ed. Ann Arbor Science for the People Editorial Collective (Minneapolis: Burgers Publishing Co., 1977), p. 145.

explanation of altruism does have awkward instances to contend with, though, as its more forthright exponents admit. Dawkins points to the phenomenon of female herd animals adopting orphaned offspring that bear no particular relation to them, thus investing their care in individuals that hold no prospect of perpetuating their own genetic legacy. The only explanation he can provide for this is that it represents a mistake of nature. "It is presumably a mistake which happens too seldom for natural selection to have 'bothered' to change the rule by making the maternal instinct more selective."[16] A more difficult example, and one which Dawkins concedes might well be taken as evidence against this whole genetic explanation of altruism, is the practice of bereaved monkey mothers who steal a baby from another female, and look after it. This is really a double mistake, from the perspective of the genetic account, because, as Dawkins observes, the adopting mother not only invests her time and care in someone else's child rather than getting on with producing further offspring of her own, but she also thereby frees the stolen child's mother to do precisely that herself, to the benefit of that mother's genes and the detriment of those of the adoptive mother. This behavior, then, constitutes a direct contradiction to what the sociobiological account should lead us to expect.

Yet even these obvious exceptions to sociobiology's central thesis are accommodated by its more imaginative proponents. So D. D. Barash explains the apparent altruism of adoption of non-relatives on the human level as a hangover from the past when humanity lived in small groups, so that there was likely to be a significant genetic relationship between adopter and adoptee.[17] If this extreme explanation does not represent the snapping of this highly elastic theory, other more empirical difficulties almost certainly do. We saw how Darwin was particularly troubled by the apparent altruism of social insects. He wondered how workers which did not reproduce themselves had ever evolved. We also noted the consideration that the answer in this case might lie at the group level. Their altruism is

[16] Dawkins, *The Selfish Gene*, p. 109.
[17] D. D. Barash, *Sociobiology and Behaviour* (Amsterdam: Elsevier, 1977), pp. 312f.

in the interest of the group, and so they are reproduced by the reproductive members. We also saw that this deviation from the individual version of natural selection was not favored by sociobiologists. In fact, the explanation sociobiology has developed for this apparent altruism of the worker castes of social insects not only reaffirms individual selection but is regarded by Dawkins as "one of the most spectacular triumphs of the selfish gene theory."[18] The triumphal account focuses on the means of reproduction in these insects, which leads to the recognition of a closer relation between the reproductive queen and her sterile sister workers than the normal one-half genetic relationship that generally prevails between siblings. A queen bee, for example, makes one mating flight, storing up the sperm for rationing out during the rest of her reproductive life. The sperm is released as required to fertilize the eggs that will develop into females. Males develop from eggs that are not fertilized at all. Whether a female develops into a worker or a queen is due to environment, rather than to genetic make-up, the principal factor being the food she receives. Thus queen and worker are full sisters. But because males develop from unfertilized eggs, they contain only their mother's genes, a single set rather than the double set that generally characterizes a species propagated by sexual reproduction. This means that the male will pass on the same genes to all offspring. Thus any two females will receive half of their mother's genes and all of their father's genes, with the result that the degree of relatedness between full sisters will not be half but three-quarters, because each will receive the same genes from their common father.

This increase in relatedness goes a long way toward explaining the apparently altruistic behavior of worker castes among social insects. For in relinquishing their reproductive capacity to the queen, the worker bees, for example, are actually ensuring the replication of approximately 75% of their own genes in each of her offspring, whereas direct reproduction would pass on only 50% of their own genes. This is the major triumph achieved by sociobiological theory in this area that

[18] Dawkins, *The Selfish Gene*, p. 187.

presented particular problems for Darwin. Unfortunately, there is a major impediment to this explanation, which arises from the fact that on her mating flight the queen must copulate with several males, a honey bee queen up to twelve times, in order to store enough sperm for the rest of her life. "Hence workers very often rear *half* sisters with whom they share only 25% of their genes – whereas they would pass on 50% of their genes through their own daughters."[19] Dawkins acknowledges this difficulty at the conclusion of his explanation of the spectacular triumph of sociobiology, but the best response he can offer is: "My head is now spinning, and it is high time to bring this topic to a close."[20] This closure might well be fatal to the sociobiological explanation of altruism, if it depends on our not recognizing that in the final paragraph of this triumphal explanation for altruism in social insects, Dawkins glosses over a crucial fact which runs directly counter to what sociobiological theory should expect.

THE RATIONALE FOR THE IMPOSSIBILITY OF NATURAL ALTRUISM

In this analysis of the treatment of altruism and selfishness in sociobiology, it is possible that we have forgotten one crucial fact, namely that the altruism and selfishness under consideration are biological. It is a matter of genes rather than of intentions. "None of the definitions of altruism in biology refers to the altruistic animal's motives, and it is in this way that they differ from the concept of altruism in human behavior."[21] It is a mistake to read into these terms the usual moral connotations they have in their everyday usage. The biological meaning is measured by a scale of prospects for reproduction rather than by any kinds of value judgments about the quality of particular modes of behavior. As E. O. Wilson puts it: "Altruism is the

[19] Georg Breuer, *Sociobiology and the Human Dimension* (Cambridge: Cambridge University Press, 1982), p. 59.

[20] Dawkins, *The Selfish Gene*, p. 194.

[21] Brian C. R. Bertram, "Problems with Altruism," in *Current Problems in Sociobiology*, ed. King's College Sociobiology Group, Cambridge (Cambridge: Cambridge University Press, 1982), p. 256.

surrender of personal genetic fitness for the enhancement of personal genetic fitness in others.''[22] To say that an animal acts altruistically is not to imply that it cares about other animals, but rather to affirm that it is endangering the replication of its own genes in a form of behavior that enhances the reproductive success of other individuals.

The restricted scope of this biological sense of ''altruism'' suggests a much more modest agenda than we have been attributing to sociobiology. If we were to go back over the evidence we have considered with this chastened reminder of the true biological meaning of the term, things might appear quite different. The issue is not whether the worker caste in social insects, the sentry bird or the stotting gazelle, leaping for the apparent purpose of warning the herd of a predator, are intentionally sacrificing themselves for the sake of others, in the ordinary sense of ''altruism.'' The point is that these forms of behavior do appear to entail genetic sacrifice. The worker caste foregoes reproduction completely, while the sentry bird with its alarm call and the stotting gazelle with its exaggerated leaps not only appear to risk their lives by issuing their warnings, but in so doing would foreclose all prospects for ensuring the reproduction of their own genes. This is the altruism that sociobiology seeks to explain, and indeed must explain to salvage its own theory. And explain it it does. The principal explanation is that these forms of behavior do not entail genetic sacrifice at all, but, on the contrary, are genetically calculated to ensure the safety of these identical genetic strains in the close kin who are served or warned. The explanation then amounts to explaining away altruism, even at this minimal biological level. ''In short, when one speaks of 'animal altruism' one is simply speaking of instinctive behaviors, selected because their possessors thereby maximize their gene-transmission capacities.''[23] It is the genes, and not the insect or animal, that are the fundamental agent. Individuals do not sacrifice themselves. They may be sacrificed by their genes, but this is only because those genes are present in other individuals and their perpetration through those indi-

[22] Wilson, *Sociobiology*, p. 106.

[23] Michael Ruse, ''The Morality of the Gene,'' *The Monist* 67 (1984): 170.

viduals will be enhanced by the sacrifice. Thus from the genetic perspective, altruism is impossible, rather than being voluntary, much less being morally laudable, and is ultimately an expression of the opposite of altruism, the pure self-interest of genetic manipulation.

In genetic terms, there is no such thing as altruism. That selfishness is an adequate way of characterizing this most basic biological level might be questioned, but, even if this is granted, it is clear that the meaning of selfishness, and the exposure of altruism, is by no means confined to that level. For it is not adequate to explain the risks of apparent genetic altruism by theories such as kin selection which assures the perpetuation of the same genes. Sociobiologists also feel constrained to extend this elimination of altruism from the level of genetic explanation to that of the phenotype. So the actual behavior of individual animals is not only not altruistic in the genetic sense, that is, in not actually endangering the genes that they share with close kin who are saved by their apparent altruism, but there is a compulsion to explain away any connotation of altruism attaching to the behavior itself. Thus sentry birds are not only assuring the preservation of their genetic strains in their close kin; they are actually ensuring their own individual safety by silencing the flock or summoning them to fly up into the trees in the safety of numbers. Stotting gazelles are not only serving the interests of the genes they share with other members of the herd, because their exaggerated leaps that seem to be warnings to the herd of the presence of a predator are actually advertisements of the health and vitality of the stotting individual, intended to divert the predator to more vulnerable members of the herd,[24] regardless of how closely they may be related.

This compulsion to explain away every semblance of altruistic behavior suggests that the restrictions of the biological sense of altruism are not determinative. The point is not only the preservation of genetic strains, or even the reproductive prospects of the apparently altruistic individual, but the nature of the behavior itself. The behavior that appears altruistic is

[24] Dawkins, *The Selfish Gene*, pp. 182ff.

really fundamentally an expression of self-interest. The explanation for genetic altruism expands to take in the more conventional sense of the term. The point is made succinctly by Wilson. "The theory of kin selection has taken most of the good will out of altruism. When altruism is conceived of as the mechanism by which DNA multiplies itself through a network of relatives, spirituality becomes just one more Darwinian enabling device."[25] The pursuit of this sociobiological explanation of altruism thus involves what Philip Hefner calls "reverse reductionism."[26] Rather than a direct equation of altruism with the biological version of genetic processes, the explanation at that level, which rules out altruism by definition,[27] expands to absorb the usual sense of the term; or, perhaps, more realistically, the ordinary sense of the term has been present all along. The scheme which attempts to explain away all altruism through the devices of kin selection and reciprocal altruism is the logical result.

The repeated warnings that talk of altruism is metaphorical[28] may begin to sound hollow in light of this crusade against all forms of altruism, but this ploy is even less credible when applied to the other side of the picture, the ascription of selfishness. There can be no question that far from representing a metaphoric shorthand for alluding to impersonal genetic processes, the processes themselves are understood under these essentially selfish terms. If selfishness was a metaphor for an impersonal genetic process, there would be no reason to attribute that same orientation to the level of the phenotype. In fact, the reverse would seem to be implied. If organisms are essentially vehicles for the propagation of "selfish" genes, then the organisms themselves are, almost by definition, unselfish, if not actually altruistic. One would expect to find a treatment at the level of the phenotype along the lines suggested by Michael Ruse. "To talk of selfish genes is to talk metaphorically, and the whole point is that the phenotypes they promote are anything

[25] Wilson, *Sociobiology*, p. 120.
[26] Philip Hefner, "Sociobiology, Ethics and Theology," *Zygon* 19/2 (1984): 194.
[27] Dawkins, *The Selfish Gene*, p. 38.
[28] Ruse, "The Morality of the Gene," p. 170.

but selfish."[29] But this is not what happens. As we have seen, the supposedly metaphorical talk of selfishness at the gene level continues to apply at the level of the phenotype. Apart from the particular examples considered, this is also evident in the insistence on the individual, as opposed to the group, version of natural selection. Granted that genetic variations occur at the individual level, it is the species, and not the individual, that is ultimately modified. Why then should the focus fall so exclusively on the individual? The obvious answer is that the assumption of the pivotal significance of selfishness that is taken to characterize the gene level continues to be affirmed on up the scale. "Opposing individual selection to group selection as egoism is different from altruism, biologists represent the scientific content of the first opposition as the folk concept of the second."[30] The contrast between egoism and altruism provides the horizon within which biological processes themselves are understood. Thus it is perhaps not extravagant of Mary Midgley to suggest that sociobiologists are fixated on selfishness.[31] Far from being merely a metaphor to facilitate communication about the intricate and impersonal ramifications of genetic structures, we must wonder whether it can even be seen as a generalization drawn from observations of biological phenomena. The tenacity with which it is held and the comprehensive scope of its influence suggest that what is involved is something much broader than sociobiology or even than modern biology as a whole.

The precariousness of claims to be operating with a peculiar biological and genetic sense of altruism is betrayed by the enthusiastic vendetta against any and every semblance of altruism. M. T. Ghiselin is under no illusions that the explanation is confined to the genetic level.

> Where it is in his own interest, every organism may reasonably be expected to aid his fellows. Where he has no alternative, he submits to the yoke of servitude. Yet, given a full chance to act in his own interest,

[29] Michael Ruse, *Sociobiology: Sense or Nonsense?* (Dordrecht: D. Reidel, 1979), p. 198.
[30] Marshall Sahlins, *The Use and Abuse of Biology: An Anthropological Critique of Sociobiology* (Ann Arbor: University of Michigan Press, 1976), p. 20.
[31] Mary Midgley, "Gene-Juggling," *Philosophy* 54 (1979): 444.

nothing but expediency will restrain him from brutalizing, from maiming, from murdering – his brother, his mate, his parent, or his child. Scratch an "altruist" and watch a "hypocrite" bleed.[32]

D. D. Barash attempts to explain the apparent altruism of Kamikaze pilots by contending that their families would enjoy enhanced social status, an explanation that hardly seems to eliminate altruism. It might be a sense of the inadequacy of this explanation that leads him to the further desperate expedient of suggesting that these pilots might have received "sexual privileges" as inducements for their sacrifices.[33] E. O. Wilson himself even goes to the extent of impugning the integrity of Mother Teresa. "Mother Teresa is an extraordinary person but it should not be forgotten that she is secure in the service of Christ and the knowledge of her Church's immortality."[34] The comprehensive scope of the attack on altruism not only far exceeds the level of genetic explanation, through this wholesale attack on any semblance of altruistic behavior, but as Mary Midgley suggests, it even results in blatant self-contradiction. The indiscriminate and total attack on altruism described by Barash has parents attacking their own genetic legacy represented by their children. Midgley points out that genetic selfishness, which is supposedly the focus for sociobiology, appears in parental behavior in the form of care for offspring. To describe parents as inherently selfishly disposed against their children is a direct contradiction of this genetic version.[35] When everyday selfishness is promoted to the direct detriment of the supposedly pristine sociobiological version of selfishness, we have a very clear indication that something much more fundamental than biological theory is at stake.

The tenacious dedication to the principle of self-interest, and corresponding opposition to all appearances that suggest any tinge of altruism, despite the apparent contradiction of this in

[32] M. T. Ghiselin, *The Economy of Nature and the Evolution of Sex* (Berkeley: University of California Press, 1974), p. 247.

[33] D. D. Barash, *The Whispering Within* (Harmondsworth: Penguin, 1979), pp. 167f.

[34] Edward O. Wilson, *On Human Nature* (Cambridge, Mass.: Harvard University Press, 1978), p. 165.

[35] Mary Midgley, *Evolution as a Religion* (London and New York: Methuen, 1985), pp. 126f.

significant aspects of animal behavior, is indicative of a prior foundational vision. The most obvious candidate for the source of that vision is the pervasive culture that shapes the wider background against which sociobiology has developed. "What is inscribed in the theory of sociobiology is the entrenched ideology of western society: the assurance of its naturalness, and the claim of its inevitability."[36] That ideology centers particularly on this assumption of the primacy of self-interest, whether in the intellectual vision since Descartes, in the political theory of democratic individualism, or in the economic version of *laissez-faire*, free-market capitalism. This latter form seems to be particularly influential for sociobiology.

There is probably more truth than public relations in Michael Ghiselin's description of his *The Economy of Nature and the Evolution of Sex* as a "cross between the *Kama Sutra* and the *Wealth of Nations*."[37] E. O. Wilson clearly reflects what is generally taken to be the guiding sentiment of the *Wealth of Nations* when he suggests: "True selfishness, if obedient to the other constraints of mammalian biology, is the key to a more nearly perfect social contract."[38] Once again, however, the presentation is made most vividly by Richard Dawkins. Thus he applies the calculations for kin selection, which represent a sophisticated exercise in economic theory in their own right, to the situation of a mother bird attempting to determine her optimum clutch size.[39] The strategy proposed is for her to lay one more egg than she "thinks" likely to be the true optimum. If there is sufficient food supply, she can raise all the children. "If not, she can cut her losses." She would do this by feeding the runt of the litter last, making sure that it got less than it required so it would die off, leaving enough food for the others. Then she is only out her "initial investment of egg yolk or equivalent." Sahlins, the Chicago anthropologist who is one of the most prominent advocates of this cultural critique of socio-

[36] Sahlins, *The Use and Abuse of Biology*, p. 101.
[37] David L. Hull, "Sociobiology: Another New Synthesis," in *Sociobiology: Beyond Nature/Nurture?*, ed. George W. Barlow and James Silverberg (Boulder, Col.: Westview Press, 1980), p. 82.
[38] Wilson, *On Human Nature*, p. 156.
[39] Dawkins, *The Selfish Gene*, p. 140.

biology, points out that this focus on optimization or maximization stands in direct contrast to the fundamental opportunism of classical natural selection theory,[40] and suggests that the likely source of this shift is the marketplace ideology that gives such prominence to this notion of optimization, the most for the least.

In fact, a great deal of the genetic strategy outlined by Dawkins can be read as straightforward cost-benefit analysis. The bird seeking to "optimize" her clutch size might also face the challenge of assuring that her mate accepts his share of responsibility in the raising of the young when they do arrive. One possible strategy would be to spurn the male's amorous advances until the nest is built, on the theory that having invested in the nest building, the male will have too much at stake to abandon his family for new prospects. Although this line of reasoning appealed to fellow sociobiologist, Robert Trivers, Dawkins challenges it. The challenge, however, is based on economics, not on biology. "This is fallacious economics,"[41] Dawkins charges. The prudent business person "should always ask whether it would pay him *in the future*, to cut his losses, and abandon the project now, even though he has already invested heavily in it."[42] It is no wonder that we have to remind ourselves sometimes that it is biology, and not economics, that we are reading. "After listening to the discussions of the Dahlem workshop on Animal and Human Mind for a couple of days the American sociologist Henry Gleitman asked whether all biologists were economists."[43] It is certainly impossible to imagine sociobiology shorn of the outlook and apparatus of economics.

So integral to the central theses of sociobiology is this perspective of economics that it is difficult to refute the charges of people like Sahlins and the Sociobiology Study Group when they contend that economics contributes to the substance, and not simply to the articulation, of sociobiology. So the Study Group contends that sociobiologists like Wilson impose human institutions, especially those of the free-market economic

[40] Sahlins, *The Use and Abuse of Biology*, p. 78.
[41] Dawkins, *The Selfish Gene*, p. 162. [42] Ibid.
[43] Breuer, *Sociobiology and the Human Dimension*, p. 257.

system, on animals. "Then, having imposed human traits upon animals by metaphor, he rederives the human institution as a special case of the more general phenomenon 'discovered' in nature."[44] This is how radical selfishness is "discovered" in nature. The discovery is actually imposed from the assumptions of the prevailing economic culture. Or, as Sahlins puts it: where Hobbes reduced human beings to an animal level and helped provide the rationale for the modern free-for-all view of economics whereby "man was seen as a wolf to man," sociobiology extends this assumption to the whole animal kingdom, rendering animals as conniving and calculating as robber barons or single-minded executives (remember Dawkins' "calculating" birds) so that "the wolf is a man to other wolves."[45] Then, contrary to the usual understanding that sees the pure economic ideal of modern business as a reflection of the "law of the jungle," the "law of the jungle" might well be more a reflection of modern business ideals. J. L. Mackie has pointed out how the intent of that phrase in Kipling's original usage was to refer precisely to the cooperation among wolves.[46] This is certainly much closer to what wolf cub leaders intend to encourage among their young charges in the scouting movement than the connotation that has been invested in that term, apparently largely through the impact of this understanding of economic reality. To recognize this "contribution" of economics to sociobiology is not to deny that nature includes viciousness and selfish behavior. There is always a danger of romanticizing natural processes. Yet the uncompromising insistence that nature represents nothing but this, so that every hint of altruism must be explained away, must be challenged. We are bound to ask how much that picture truly reflects what goes on in the natural order, and how much it reflects the imposition on that order of this particular reading of life developed in modern economics.

The explicit cost-benefit calculations of animal behavior

[44] Sociobiology Study Group, "Sociobiology – A New Biological Determination," p. 141.
[45] Sahlins, *The Use and Abuse of Biology*, p. 99.
[46] J. L Mackie, "The Law of the Jungle," *Philosophy* 53 (1978): 455ff.

presented by sociobiologists are only a more detailed version of the fundamental orientation of modern biology generally. "Evolution is basically a selfish doctrine, preaching that the individual that maximizes its own welfare and reproduction relative to others will gain the selective edge – by leaving more descendants who, themselves, carry the same behavioral traits."[47] The parallel with the modern economic vision is unmistakable, but the dynamics of the parallel are even more revealing. We have noticed the suggestion that this modern economic reading crept in through the influence of social Darwinism. Thus Sahlins concludes that "Darwinism, at first appropriated to society as 'social Darwinism,' has returned to biology as a genetic capitalism."[48] On this reading, Darwin's biological vision was applied to human society through "social Darwinism" and then, in turn, this free enterprise social vision was read back into nature with the result that, as Sahlins suggests, the wolf comes to be seen in light of the acquisitive behavior associated with the aggressive human entrepreneur. It may be, however, that in spite of the sharpness of Sahlins' attack on the genetic capitalism developed by sociobiology, his historical reading of Darwinism itself is really too conservative.

At the very least, there is a reciprocal relationship between natural and social Darwinism in their origins, and not simply in their long-term development. "The social Darwinian description of nature, with its emphasis on the survival of the fittest and a claw-and-fang mode of natural selection, precisely reflected the relations that prevailed in the 19th century marketplace. The fit is almost perfect, and it is hard to say whether natural Darwinism produced social Darwinism or the very reverse."[49] Thus it is not the case that natural Darwinism developed as a biological theory in pristine isolation, and then received social application. The theory itself reflects the outlook of the age in which it developed. Ashley Montagu points out that though

[47] Stephen T. Emlen, "Ecological Determinism and Sociobiology," in *Sociobiology: Beyond Nature/Nurture?*, ed. Barlow and Silverberg, p. 125.

[48] Sahlins, *The Use and Abuse of Biology*, p. 72.

[49] Murray Bookchin, "Ecology, Society and the Myth of Biological Determinism," in *Biology as a Social Weapon*, ed. Ann Arbor Science for the People Editorial Collective, p. 124.