# NATURAL SELECTION AND THE SELFISH GENE

Joe E. Barnhart
*North Texas State University*

A major thesis of this article is that an understanding of the selfish gene can throw considerable light on the ancient and perennial philosophical issue of altruism versus egoism. Having characterized the gene as selfish, Professor Dawkins is found making the following surprising statement.

> A gene which *cooperates well* with most of the other genes which it is likely to meet in suc cessive bodies, i.e., the genes in the whole of the rest of the gene pool, will tend to have an advantage.[1]

Philosophers may try fleshing out the question of selfishness without making reference to either the *motive* or the phenomenon of *thinking about oneself only*. Assuming that it is possible to decide if a human being is selfish by referring to his *behavior* in the context of the behavior of other human beings and perhaps other organisms, I offer the following points on the altruism versus egoism issue.

First, the selfishness of a given unit need not rule out its cooperation with at least its own kind. Indeed, cooperation is absolutely essential to gene selfishness. In Kantian terms, cooperation is "foundational" to selfishness. *Cooperative behavior* is publicly observable in both selfish genes and selfish people. Indeed, *if* selfishness entailed the avoidance of all cooperative behavior, selfish behavior would become self-destructive—a curious paradox.

Second, survival requires vessels, instruments, tools or means. One such means is food. But there are others which serve the unit in ways that food cannot. This point is crucial. The surviving unit cannot behave with arbitrary and wanton aggression toward the fundamental means and instruments of its own survival. In strictly behavioral terms, we have the origin of what may be called "caring behavior" (without referring to either psychological motive or the subjective phenomenon of thinking about another unit's welfare). This means that the surviving unit must at the very least do no significant harm to its host.

Third, genes tend to survive when they not only do no great harm to their host, but make a positive contribution to it. Unselfish *behavior* (in the sense of a gene making alliance with other genes and other members of the environment) is something of a *quasi-organ* of the gene and has unquestionable survival advantage. Instead of evolving a new organ, a gene may evolve new behaviors allowing it to make use of other genes and other



ingredients of the environment *as if they were the gene's own temporary identity.*

The phenomenon of units developing a coalition among themselves has deep roots in nature. "Atoms tend to fall into stable patterns. . . . The earliest form of natural selection was simply a selection of stable forms and a rejection of unstable ones (Dawkins, p. 14). Not only do some atoms fall into alliances while others do not, but there may be a general law of the survival of the relatively stable (of which Darwin's "survival of the fittest" is but a special case). Atoms rejected for lack of capacity to fall into alliances may be analyzed empirically for their "flaws" (Dawkins, p. 13).

Fourth, behavioral selfishness is entirely relative (which is not to say that it is arbitrary). There can be no selfishness per se. Every form of selfish behavior, like every form of unselfish behavior, must both reject certain units and cooperate with certain other units. Mutual aid is always to be understood against the background of competition. The converse is also true.

Dawkins insists that "the fundamental unit of selection, and therefore of self-interest, is not the species, nor the group, nor even, strictly, the individual. It is the gene, the unit of heredity (p. 12). It seems to be the nature of genes, nevertheless, to be unable to survive without depending on bearers, which are more temporary than themselves. Hence the absolute necessity of unselfish or cooperative behavior on the part of the selfish gene. No gene can build a leg singlehandedly (no pun intended). "Building a leg is a multi-gene cooperative enterprise" (Dawkins, p. 39).

Indiscriminate cooperativeness is self-destructive. Survival requires limitations on unselfishness. Unselfishness in the form of cooperativeness is self-destructive unless it develops self-restraint.

Realizing that it is risky to leap from gene behavior to the behavior of human beings (even if human beings are gene machines), I suggest that the structure of selfishness and unselfishness is the same regardless of the units involved. Understanding this might open the way to gaining some insight into crime (especially organized crime) and war. Perhaps of more importance, it might help us better to understand the problem of irrational population increase. Louis Pascal argues not only that it is selfish human beings who are creating the population crisis, but that only the selfish will be able to survive the crisis (if anyone survives at all, since evolution guarantees the survival of no species). The selfish, not the meek, shall inherit the earth. But that is not all. Professor Pascal's analysis leads to the conclusion that the human species must become increasingly selfish, since evolution favors short-sighted selfishness.[2]

If Louis Pascal's analysis is correct, the human species seems doomed to a life increasingly nasty, brutish, and short (for individuals at least). Pascal admits, however, that there are various forms and levels of selfish-

ness, some of which, we may conjecture, are more bearable than others. My own conclusion is that since, as I have argued, both selfishness and unselfishness seem to be essential ingredients of every human individual and group of individuals (as with genes), it is pointless to regard either selfishness or unselfishness per se as unqualifiedly moral or immoral. It may be more fruitful to understand the relativity of morality and its contextual nature. For example, in having children, a couple is behaving unselfishly in agreeing to raise new bearers of the grandparents' genes. Parents sacrifice sometimes considerably to do this. At the same time, having children in an overpopulated world is selfish or even aggressive behavior.

To argue, as I have, that selfishness, unselfishness, and morality are always contextual and relative (although not arbitrary) is not to solve any particular human problem. But it can contribute to at least alleviating or checking some problems. Karl Popper is probably correct to regard "the problem of overpopulation as the gravest of all social problems of our time.[3] If we cannot look at our species both as the involuntary agents of genes and as a species that has strong biolcultural reinforcers for the blind reproduction of offspring, we will likely become increasingly tied to the role of slaves and means of our genes rather than ends in ourselves.

## NOTES

1. Richard Dawkins, *The Selfish Gene* (New York: Oxford University Press, 1976), p. 41. Italics added.

2. Louis Pascal, "Human Tragedy and Natural Selection," *Inquiry: An Interdisiciplinary Journal of Philosophy and the Social Sciences*, 21, 4 (Winter 1978), 447; "Rejoinder to Gray and Wolfe," Inquiry, 23, 2 (June 1980), 244.

3. Karl Popper and John Eccles, *The Self and Its Brain* (New York: Springer International, 1977), p. 4. For Popper's discussion of the human capacity for "downward causality," see "Natural Selection and the Emergence of Mind," *Dialectica*, 32, 3-4 (1978), 354.