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Altruism

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Altruism is reflected in actions by one individual that benefit another, even when there is no expectation of reward. Altruism is often equated with selflessness and contrasted with selfishness, or alternatively, altruism is seen as other-regarding as opposed to self-regarding behavior. The latter usage is sometimes preferred because of difficulties in classifying behavior for which the individual acting altruistically receives a "warm glow" from helping others. The question raised in this instance is whether such an individual is actually selfish and, if so, whether there is any behavior that, after the fact, could not be interpreted as selfish.

The need to preserve altruism as a meaningful behavioral category leads to an emphasis on objective, observable measures of welfare. Thus, an individual who sacrifices health, material wealth, or physical comfort to benefit another can be viewed as exhibiting altruism whether or not he or she receives personal satisfaction from doing so. In biology, altruism refers to behavior by an organism that improves the reproductive fitness of another at the cost of reducing the reproductive fitness of the actor. This entry discusses altruism as it has been explained and defined over the years.

Explaining Altruism

Philosophers and behavioral scientists continue to ask whether humans have innate tendencies toward altruism or whether proclivities in that direction are the result of socialization or acculturation alone. One view is that any such behavior is purely the consequence of a "thin veneer of civilization." Rend that fabric, and humans will be at each other's throats, tearing each other apart for the slightest advantage.

One sees this in Sigmund Freud's work (e.g., Civilization and Its Discontents), in literature (Robert Golding's Lord of the Flies), and in much traditional sociology and anthropology. The problem with this view is that, based on the archeological record, it is difficult to push the ability of humans and their progenitors to develop and transmit culture across generations further back than 500,000 years or, at a maximum (based on evidence of the use of fire), perhaps 1 million years. Language abilities are almost certainly much more recent. And yet the common ancestor of the three surviving chimpanzee species—Homo sapiens, Pan troglodytes (the common chimp), and Pan paniscus (bonobos)—who lived roughly 7 million years ago, must have exercised some restraint on harming other members of the same species (conspecifics).

By far the most important aspect of altruism, as Alexander J. Field points out in his book Altrusitically Inclined? The Behavioral Sciences, Evolutionary Theory, and the Origins of Reciprocity, is not harming others when doing so can be justified defensively (as a means of forestalling attack) and, further, as a means of acquiring more resources. In most instances, one can confer much greater benefits by not harming another as opposed to affirmatively helping.

One of the key realms within which to observe altruism is the family. Evolutionary biologists approach the phenomenon of altruism genetically, viewing individual organisms as, in a sense, envelopes or vessels for genes. Genes themselves have no theory of mind or independent volition, but the theory of natural selection tells us that genes predisposing toward behavior that increases their frequency in subsequent generations should be favored.

In most cases, the "interests" of the gene in increasing its frequency over time and the interests of the organism in survival and reproduction are the same. But not always, and that, from a biological perspective, is the problem of altruism. Suppose genes predispose toward behavior that might
reduce the survival probabilities or reproductive success of the individual while helping another. How could such genes gain a foothold and increase in frequency within a population?

In the 1960s, William Hamilton proposed an elegant solution to the problem of explaining how such genes could become established. It is a commonplace observation that parents are often prepared to sacrifice their material welfare or, in some cases, even their lives, for their children. Because biological children share half the genes of a parent, a gene predisposing to sacrifice could increase in frequency if such behavior tended to lead to the survival of at least two offspring (or two siblings or eight first cousins and so on).

Hamiltonian kin selection is today widely understood as a key part of the explanation of altruism within families. In other words, tendencies toward parental sacrifice have a hardwired component; they are not purely a cultural construct. Indeed, such behaviors can be observed throughout the animal kingdom, including among species that do not have the ability to develop and transmit culture.

The more difficult challenge is to explain altruism beyond the immediate family. Genetic relatedness drops off quickly—first cousins share just an eighth of each other's genetic makeup—so even in the small bands of 50 to 100 hunter-gatherers out of which human society emerged, kin selection by itself is too weak a force to explain the emergence of the cooperation essential for group survival.

Cooperation is not the same as altruism, but it depends on altruistic predispositions in order to get started. Why? Because a self-regarding individual not already embedded in a fabric of reciprocal interaction faces a Prisoner's Dilemma, that is, the dilemma of deciding whether or not to cooperate (e.g., refrain from attacking) when confronting a stranger for the first time. Attacking first and asking questions later has much to recommend it from the standpoint of both prudence and wealth maximization. The worst outcome would be to sit tight and be attacked (since offense often has an advantage). The best for each individually would be to attack while the other sat tight.

The next best outcome (and the best for the two individuals considered jointly) would be to refrain mutually from attack, which would open up the possibility of beneficial cooperation and exchange. The next-to-worst outcome would be for each to attack the other. The dilemma is that the best response to whatever the other does is to attack, even though this leads away from the outcome that is collectively the most beneficial.

### Influence of Genes

It is easy to understand how gene(s) predisposing toward attack might be favored, particularly if being attacked while sitting tight means death. It is more difficult to understand how genes favoring restraint could be favored. Several approaches have been proposed. The first is to argue that the restraint necessary to allow initial cooperation among those not closely related is simply an extension of the operation of kin selection within small groups. But this involves a certain amount of hand waving since, as has been shown, genetic relatedness falls off too quickly for this to be a complete explanation of how the behavior originated.

The second approach is associated with the work of Robert Trivers, who developed the theory of reciprocal altruism. Here, the idea is that if A at small cost can confer a large benefit on B, then B, being grateful, might at some small cost return the favor at a subsequent point. But this does not explain why a self-regarding B would not simply take the initial benefit and run. Nor, since A should figure this out, does it explain why he or she would initially bear the small cost of helping. Assuming no selection higher than the organism level, one would expect evolutionary forces to reinforce this calculus.

Game theorists understand that once individuals are embedded in a fabric of reciprocal interaction, self-regarding individuals may find it to their benefit to continue cooperation. The problem of explaining the origin of cooperation is distinct from the challenge of explaining why it might be sustained. Altruism (in the form of restraint on harm) may be necessary to initiate a cooperative relationship, but once embedded in a social context, the behavior can appear drained of altruistic context. As Adam Smith said in *The Wealth of Nations*, people do not depend on the benevolence of the butcher or the baker for their sustenance but on his self-interest.

A third approach acknowledges that in the evolutionary past, natural selection may have
operated at levels above the individual organism. The possibility of group or multilevel selection remains controversial within biological discourse, but many evolutionary biologists, including some who originally distanced themselves from the idea, such as E. O. Wilson, have now embraced the view that it provides the most coherent explanation of how the altruistic predispositions that favor human cooperation among non-kin could, upon first appearance, have been favored.

Proponents of group or multilevel selection do not dispute that the gene is the ultimate unit of selection. But they seek to extend the principle, acknowledged uncontroversially in the case of kin selection, that in certain instances, genes predisposing toward behavior not in the survival or reproductive interest of the organism containing them might nevertheless be favored by selection pressures.

In the case of kin selection, the argument is simple and straightforward. In the case of genes predisposing toward restraint on harming others who are not closely related, the mechanics are more complex. If human populations are dispersed in small groups and if there is some random variation in the frequency of genes predisposing toward restraint, groups characterized by higher frequencies of such genes will likely grow more rapidly. And if the groups periodically pool and then reassort into smaller groups, the apparently paradoxical conclusion is that genes losing out in terms of reproductive fitness at every moment of time in every group may nevertheless increase over time in a global population.

**Final Thoughts**

The history of mankind is of course marked by horrendous violence and the premature deaths of hundreds of millions of individuals at the hands of other humans. Unprovoked preemptive attack is a feature of human history. At the same time, one can look at a world of more than 7 billion individuals and marvel not at the extent of conflict but at its relative infrequency, which is one of the reasons conflict is newsworthy. Is this entirely the result of a thin veneer of civilization or culture, and, if so, why were and are individuals prepared to accept some of these norms?

It is likely that humans have, in addition to their proclivities toward self-regarding behavior, some hardwired predispositions toward altruism. The most empirically significant are those leading to restraint on harming others. There is also a somewhat weaker predisposition toward affirmatively helping others, including those who are non-kin. Each of these predispositions can be strengthened or weakened by training or acculturation.

Research in social psychology has demonstrated that humans are quick to divide conspecifics into in-groups and out-groups, with members of an in-group most likely to benefit from both types of altruism. These categorizations are, however, malleable. Identifiable ethnic or racial markers play a role, but culture can be as important. This is a reminder that, although much behavior, including that predisposing toward altruism and selfishness, has a genetic and biological substrate, culture and socialization are important influences on how these predispositions manifest themselves.

**Alexander J. Field**

See also Altruism and Sociality; Close Relationships; Cooperation; Culture and Social Relations; Group Selection; Hamilton, W. D.; Human Nature; Morality and Moral Emotions; Parent-Offspring Relations; Social Cognition; Social Emotions; Social Motives

**Further Readings**


