

2 Actions in nature and culture

It is possible to see moral philosophy as sheer metaphysics, utterly alien to physical reality. Our point of departure, though, is that morals and ethical systems are interesting insofar as they influence human actions and human reality.

We are influenced, however, by much else in addition to morals. Before discussing moral questions, it is therefore worth analyzing human behavior in some detail. The characteristics of our actions are, of course, an essential basis for judging the ability of morals to influence them positively. While they do depend on moral systems, we shall begin by structuring actions in terms of the most fundamental perspective - that of evolution. Once the issues of "what" and "why" are answered, it will be time to ask "whither" and "how". Let us first consider actions under their functional categories, which also have a close connection with moral ideas.

2.1 Selfishness

Selfishness is hard to define in a manner both clear and consistent with ordinary usage. One problem with selfishness - and even more with its synonym "egoism" - is that, in a moral sense, it gives rise to associations with many things we dislike. Moreover, there are other actions which we gladly perform but do not enjoy calling egoistic, even though this is justifiable. The word needs precision.

A functional definition of selfishness is as follows: "actions that are expected to produce greater advantages than disadvantages for the actor". What is meant by "expected" must be clarified in two respects. First, we know that people - not to mention animals - often carry out actions that are good for the organism itself without making any calculated decisions. No awareness of performing an egoistic action, then, is needed in order to describe it as egoistic. Neither does inadequate intelligence, or self-deception, entitle us to classify an action as nonegoistic instead. Secondly, expectation does not always agree with the outcome. An investment to earn money will not lose its egoistic character if it makes a loss that benefits other people.

On these grounds, egoism is plainly a label that suits a great deal of what we do - ranging from actions which maintain our physical selves, to the social situations where we behave in our own interest. Most such actions are, in fact, so automatic that we give them no reflection at all. In regard to numerous other actions, we think it so obvious that our personal preferences should lead the way, that we see no moral choice confronting us. Actions in which an egoistic option is questioned are a tiny portion of the total.

A medieval monk, William of Occam, is famous for his logical principle, "Occam's razor", according to which the simplest

explanation should always be adopted until it proves insufficient; only then are more far-fetched reasons, such as divine intervention, to be sought. In brief, the most elementary and ordinary hypothesis was his working rule. When several different motives might account for a human action, egoism may be viewed as the easiest explanation. Behavior that benefits both the actor and someone else can be attributed to an egoistic objective. Only if the action is neutral or negative for the actor must it be ascribed to further motives. With the opposite logic, viewing egoism as the least likely explanation, nearly all actions could be thought due to a positive effect on some other individual. They might sound more praiseworthy, but this reasoning is speculative and invites falsification. When assessing actions and morals, it is doubtless prudent to accept egoism as a basic explanation by Occam's rule.

To improve our understanding of egoism, the best approach seems a glance at alternatives which are not egoistic. With their whole range before us, we ought to have the greatest chances of determining which explanation applies most fairly to a particular action. It will be emphasized from the outset, however, that we do not intend to brand egoism as bad by definition, so that actions which are accepted as selfish must be given a different label. There are strong grounds for avoiding a moralistic negative definition. One can, after all, find dissenting opinions like that of August Strindberg: "Egoism is an ugly name for mankind's grandest gift: the urge to self-preservation." <1>

2.2 Kin selection

Kin selection is a biological concept of extreme interest for this analysis, since it has unusual explanatory power in regard to social behavior.<2> In natural selection, the primary role is played by discrete genes. Individuals are born and die in rapid sequence, while genes are copied and inherited by new individuals. Genes that lead to plenty of vital new individuals are spread. Genes which are good for the individual, yet do not result in more new individuals, die out. Reproductive success is so important that the individual's survival is secondary.<3> In some animals, such as Pacific salmon, the parents die immediately after mating; and in many spiders, such as black widows, the female eats the male when his pairing performance is finished. Individual survival is chiefly a means of creating more individuals, not an end in itself.

Organisms reproduce according to two main strategies, quantity or quality. Either a large number of offspring are generated and left to survive as best they can, or else a smaller number whose survival is promoted by help from the parents. Nursing of mammals is a technique which places us under the heading of quality. The female - together with the male, in some species - devotes substantial resources after birth to supporting the growth of the young. Genes for successful caring behavior have spread, whereas genes that cause excessively poor parenthood have died out with their bearers.

If one has grasped and approved the principles of evolution, it becomes clear that humans have a set of genetic instructions which impose self-denial for the benefit of their children. Orders from the social authorities may serve a purpose, but the ultimate motivation for taking care of our children evidently comes from nature's, not civilization's, institutions.

Our biological history explains why children's interests can assert themselves very well against a parent's egoism: the individual is programmed to be considerate of his or her offspring. We have many genes in common with other individuals of our species, besides genes that also occur in different species. In addition, we have some genes that are not general but distinctive for the individual. We share these "variation genes" to a certain extent with our blood relatives: 50% with a parent, child or sibling; 25% with a half-sibling, grandchild, nephew or niece; half as much with a first cousin, and half again with a second cousin.

Thus, we are prepared not only to bother about our relations, but even to risk our lives for them. On a genetic level, it is better to sacrifice oneself than to lose a grandchild and two children, since one's genes are multiplied by 25% plus twice 50% rather than by 100%. (Further factors may complicate the mathematics, such as the ages of the surviving individuals. For instance, an older offspring has higher genetic value, being more likely to reach sexual maturity.) The calculation need not be made deliberately: it functions as an unconscious, mechanical law. Animals that fight to defend their young obey this pattern.

When we compare kin selection with egoism, the former's effects are not really surprising. If some animals make sacrifices that offer advantages to related individuals, the result is greater reproduction. In a flock of closely related animals, one member may give warning calls upon seeing a predator. This is not safe, as the calling individual might draw attention to itself and be killed. Should the action yield a genetic loss, it will soon disappear. But if, on average, two offspring and two siblings are saved for every caller that dies, the action turns a statistical profit, and the gene for warning calls will spread to become more frequent in each generation. An "egoistic" gene which tells the member to flee silently is, perhaps, individually profitable - yet the gene will decrease in frequency when children and siblings end in the predator's claws.

The requirement for a trait's success is that the sacrifice be smaller than the product of genetic profit and kinship. A more distant relationship means that the profit must be larger for the individual who benefits, or that more individuals must benefit. If these are as distant as second cousins, a warning call has to save sixteen of them in order to compensate for the caller's death. Assuming that the requirement is satisfied, this kin-selection behavior will quite probably become dominant over the egoistic alternative.

In social terms, the most developed animals are insects such as ants and bees. The majority of worker bees are more closely related to each other than ordinary siblings. Through a peculiar genetic process

they inherit not half, but all, of their fathers' traits. And since the queen is their common mother, they share half of her genes. Consequently, the individuals bear a full 75%, or "three quarter", relationship to their sisters. In human society, "kamikaze" pilots who fly to certain death by crashing into the enemy are rare. When a bee attacks, its sting is torn from the body and it dies; still, its suicide is a perfectly normal sacrifice. If the attack can increase the chances of survival for its many relatives in the hive, the bee's sacrifice is genetically rational. One explanation for this high degree of "solidarity" toward society lies in the common genes - and here we mean a real biological sisterhood, not a symbolic one. Visions of science fiction are on the right path in representing cloning as a way to create self-sacrificing soldiers, for the social system of bees can be imitated only by using its biological basis. As was stressed above, though, kin selection involves not conscious calculation, but inherited control. Hence, any human clones would not have developed a genetic code for the special behavior that characterizes individuals in a bee community.

While common genes do not resolve every conflict in a family, they throw light on the problem. A female mammal has to decide how long she will nurse an offspring. She must weigh the risk of its becoming weaker, and dying, against the possibility of producing more offspring. She shares its interests in part. The offspring also shares the mother's interest: it has an interest in acquiring more siblings. So their interests largely agree, but genetically each has a 100% self-interest and only a 50% interest in the other. This leads to a conflict over the time at which the nursing should end. The mother's optimum point is a little earlier than the offspring's, and she decides in spite of its protests. The offspring's 50% gene share guarantees that its essential needs are fulfilled, as far as external resources permit. Yet it will never make the same judgement as its parents, since the interests do not entirely coincide.<4>

A human family faces the same dilemma. The child has an interest in the parents being happy and the household staying solvent. This is partly in its direct self-interest, but also because the parents' welfare has a further value due to kinship. The child's consumption budget does allow a TV game, but the mother prefers to spend money on other things - she leaves the toy shop while the child protests. We may think the problem is misunderstanding, but it is not. The common interests, though considerable, are not total.

An aspect that has plagued males, ranging from baboons to Strindberg, is uncertainty about fatherhood. In the animal world, a lack of fatherhood results in specific actions. Well-known examples are male lions that kill nursing young after driving away the earlier male and taking over a flock of mothers. This happens because a female, if her motherhood is brutally terminated, returns more quickly to fecundity and can then bear another brood with a new male as father.<5>

In human societies which are relatively promiscuous, the man is confronted with a predicament. If his fatherhood is uncertain, there may be no point in devoting too many resources to his possible heirs.

An alternative is to draw a comparison with his sister's children.<6> He shares 25% of his genes with them, or half as many if she is only a half-sister, which is realistic with such free alliances. These are fairly reliable percentages, for the probability of a brother and sister having the same mother is very high. Since the supposed 50% share in his wife's children may actually be zero, he may prefer to invest resources and commitment in the sister's children. A brother's children would be equally close to him if the alliances were faithful, but promiscuity makes them a worse option. The latter is then no better a genetic strategy than commitment to one's "own" children.

True matriarchy, where women have power over men, does not exist. But there are numerous societies which emphasize kinship through the mother, not the father.<7> This stress upon family ties on the female side is difficult to explain, if not incomprehensible, unless seen as an alternative according to biological theory. It is not female dominance over men, but the dominance of a maternal uncle's role over the father's role. The man devotes fewer resources to his own children, and more to his sister's, in order to maximize his genetic reproduction.<8> Thus, cultural characteristics are perhaps not as freely created traditions as many of us imagine.

Sociobiological theory also implies that older people should have some preference for a daughter's children to a son's children, due to the higher likelihood of real kinship. Among children in the USA who, in 1970, lived with one parent and the older generation, they lived with the mother's parents over ten times more frequently than with the father's parents.<9> However, this preference for a daughter's children need not mean that parents prefer a particular gender for children and grandchildren. On average, men and women in equal numbers have equally large genetic reproduction, and the man's inferiority as regards certain fatherhood is outweighed by his opportunity of providing unofficial fatherhood.

Kin selection is a notably important factor in understanding the behavior of social animals, not least people. Also termed "inclusive fitness" in biological literature, it is a dynamic field of research and has shown great progress since the pioneering contributions of W. D. Hamilton in the early 1960s. This has not involved any break with original Darwinism, but should be taken as fresh proof that its main ideas are correct.

Obviously much of our behavior is in line with how one ought to behave by the kin-selection model. Advocates of cultural influence may insist that the cause is culture and the correlation with kin selection is an accidental or secondary phenomenon. Let us then examine more instances of biological impact. On some sensitive issues, it is easy to incite heated criticism of a view which turns out to be right, and just such a view is the parental unfitness of step-parents. Is a social, non-biological parent as good as a "real" parent? Do Cinderella, Snow White, and countless other tales of wicked step-parents support a prejudice, or a truth?

How many children experience abuse is not well documented in general. Unrecorded cases are innumerable, and accusations of

maltreatment or neglect have occasionally struck groundless blows in a bitter divorce suit. But when things go so far that a child dies, the acts are clearer since deaths are investigated and recorded carefully. Here the absolute figures, though quite small, are the tip of an awful iceberg. Differences between kinds of parents, too, are enormous. Two studies, from the USA and Canada, show that a child who lives with a biological parent or a step-parent runs a risk 70 or 100 times higher, respectively, of being killed than does a child living with both biological parents.<10>

Whichever society is studied, examples of kin selection occur. Another variant is nepotism, a word of normally negative import. Even cultures that are against nepotism in principle exhibit systematic use of it. This is familiar in Communist states, a grandiose illustration being North Korea's transition of power from "The Great Leader" Kim Il Sung to "The Beloved Leader" Kim Il Young, which is less a human than a divine succession. From the protocol, we learn that the present leader was born under circumstances like those in Bethlehem, with a heavenly glow and double rainbows presaging the event. While awaiting promotion he composed, among other things, six operas which all top the list of mankind's marvels.<11> Elsewhere, nepotism tends to be more prosaic as well as more common.

Be that as it may, the effects of kin selection are dominated by positive examples of people who help relatives. And the colossal sacrifices we make for our children are a very large proportion of what we do for others. The intention is sometimes said to be mutual: we help our children so as to be helped in the future. Such alliances do exist in various cultures, but are not the decisive ones. A child's sacrifices are primarily devoted to its own children. We are ready to take a conscious loss in dealing with our children because of genetic, rather than individual, rationality.

Genetic self-interest is the driving force behind kin selection. Despite this, the term "kinship altruism" is also employed, possibly in order to uphold the instructive notion that many altruistic actions are performed in real life. A further excuse for such terminology is to exploit altruism's good reputation; it sounds finer to label behavior as altruistic. Nevertheless, kin selection explains actions which are egoistic in a genetic sense, not an individual one. It follows that "kinship altruism" is a misleading term, and we shall speak only of kin selection.

2.3 Group egoism

Yet another type of behavior can be called accumulative egoism. In sociobiology, the phenomenon is usually described as "aggregation" and "selfish herd", but we think that these terms are too far from general usage in philosophy and politics. For practical reasons the neater term "group egoism" will be employed. It is essential, however, to recognize individual interest as the central point of departure, the group being primarily an instrument. Accumulative egoism is

therefore less ambiguous, since "group egoism" may turn our minds to the opposite idea - that the group is a separate organism with independent interests. This idea is normally expressed by the term "group selection".

Thirty years ago, it was widely believed that natural selection, to a great extent, took place between groups through group selection. That a group can benefit from unselfish members is easily understood. But selfish individuals will eliminate unselfish ones in a group. Such selection on an individual level is much more effective and rapid than that on a group level. The theory of group selection was first refuted by the biologist George C. Williams,^{<12>} and today most authorities agree that this form of selection can operate only in certain extreme circumstances.

Group egoism, on the other hand, is a quite distinct mechanism, building upon individual rationality. Again we must look at the broad applications in nature, before surveying this factor in human societies.

It is sometimes profitable for unrelated animals to join in aggregates. A school of fish and a flock of antelopes are examples. The aggregation is more readily noticed by predators, and as a rule one can best elude attention by staying alone. Still, a solitary individual is more vulnerable if noticed at all. In a flock, any member runs a lower risk of personal harm, even if the flock is attacked often.^{<13>} This passive behavior - hiding oneself in the mass^{<14>} - is not the only kind of defense. A more active kind is used by musk-oxen, which stand in a ring with their horns and front hooves directed toward attacking wolves. The individuals raise their chances of survival significantly by uniting together. Situations do occur where the border with other explanations is fluid: a flock of musk-oxen includes young animals that are protected by the defense, so it depends on kin selection as well as on group egoism.

Human society involves many actions, behavior patterns, and institutions that can be attributed mainly to group egoism. Labor unions are a clear instance. By joining forces, individuals greatly increase the possibility of improving their conditions. A socialistic vision is frequently seen as part of the unions' ideology, but this is in no way a necessary connection; what count most are material circumstances. A group that has been very successful are pilots. They are hard to replace with strike-breakers, their work cannot be stockpiled, and a strike immediately affects the employer's profits. These weighty considerations lend their union a strong position for making tough demands without a socialistic ideology. The advantages of unions are relatively evident, needing no complex arguments or conversions. A Marxist view, which seems correct, is that the union spirit differs from socialistic consciousness, and that it arises spontaneously in the working class without calling for trained agitators.

In Western society, diverse special interests have organized themselves on the same principle: cooperation gives strength. They can acquire great political power if enough of their members vote

according to group egoism. Car owners, tenants, pensioners are mobilized by organizations that regard themselves as good advocates of a special group interest. The arguments build on more far-reaching grounds such as justice, growth, ecology; but the fact can scarcely be obscured that the group's interest is primary. This axiom, though, does not prevent an argument from being right in reality, or the group's interest in an issue from agreeing with wider interests.

Employers have also perceived the opportunities offered by cooperation, either in the form of cartels or in buying out competitors. Inter-company collusion is chiefly aimed, not against the employees, but against firms in other stages of production, and against the consumers. This causes a clash between points of view: a strongly positive attitude toward competition when a monopoly affects oneself, and at the same time a constant effort to control one's own market. Henry Ford described the conflict between broad perspectives and narrow efforts in a telling way: "Free competition is the best environment for a company - next after monopoly, of course."

Group egoism occurs easily, and the advantages for members are plain. When permanent structures arise within a group, the link between members' interests and the group's policy becomes weaker, since leaders and functionaries in the organization acquire a self-interest that does not coincide with the ordinary member's. The obvious connection of ideas with actions is no longer so obvious. A risk always exists that the organization will degenerate, making leaders' interest the main theme, and turning members into tools of the organization instead of vice versa.

There is, however, a less noticed tendency: the exploitation of active members by passive ones. Group-egoistic projects do not all have well-paid officials, but depend on volunteer work by individuals who have the same advantages as the others, yet make considerably larger sacrifices. As a passive member one may well ask, self-critically, whether one is exploiting the active members. A group-egoistic organization can be seen as a power struggle between passive members who want to exploit the active members' work, and the active members who want to change the organization so that their own special interests are fulfilled to a greater degree.

Another level of group egoism is what we formally term "the national interest". Citizens in a state, or members of an ethnic group, have many common interests, several of which are potentially directed against other groups. Protectionism, fishing zones, and national defense are all phenomena of group-egoistic character. The state includes other activities, such as how to resolve conflicting interests within the nation, but the common interest with respect to other states is an important factor. The bigger an organization is, and the more complex its member interests are, the more readily its leaders' interests can deviate without this being noticed. Old royal and popular interests certainly did not coincide in full, yet even democracies show differences of interest between leaders and citizens.

Group egoism comprises much of the activity in human society, and occurs spontaneously due to palpable advantages. It

seldom provides a complete answer to major social questions, but has a significant bearing on them - just as a clever, persuasive lawyer is a key component of the legal system, even if his opinions are not balanced enough to qualify him as a judge.

2.4 Reciprocity

A monkey, in spite of its supple limbs, has trouble plucking lice and other beasts from all over its body. A solution is for another monkey to deal with its back, whereupon it returns the favor. This is done by many other creatures too: "You scratch my back and I'll scratch yours." In nature, exchanged services are performed both within and (as "symbiosis") between species. Vampire bats that have managed to eat a solid meal frequently vomit up some of it as food for other animals, which need not be their relatives. When these in turn catch plenty of food, the service is returned to the original giver.^{<15>} It is thus not a matter of sweeping generosity, but of services and return services that are directed - a cooperation extended in time.

Such patterns of action are designated variously. The philosopher David Hume spoke of "confined generosity".^{<16>} Probably the most common term, though, is "reciprocal altruism".^{<17>} That the action is reciprocal should be evident from the foregoing examples, but why it is called altruistic requires an explanation. A well-done delousing may be followed by the louse-free monkey hopping away without helping the other to get rid of his own lice - and an act viewed in isolation is easily described as altruistic. Yet the delouser does not selflessly help fellow monkeys. After suffering this breach of an implicit agreement, he will hesitate to help the evasive individual again; in a small group the consistent evader will get no help, so there are strong egoistic reasons for not evading cooperation. Against this background, it is unsuitable to interpret every delousing as a separate action. In the total perspective, as the very idea of reciprocity indicates, the word "altruism" is misleading. Hence, we prefer to use only "reciprocity" for such action, implying no essential distinction from reciprocal altruism.

In human society, reciprocity plays a large role. The importance of "contacts", a dynamic network of services and return services, is emphasized in all areas of social life. If reciprocity is to develop, someone must take the first step by making a sacrifice that benefits others. This does not always succeed, of course; nor does it function perfectly even in a group with few individuals. But there is often a chance to make a small sacrifice of greater value to the recipient, which can motivate a return service that highly pleases the first giver. For a vampire bat that is already sated, a little extra food is of small value; yet a friendly regurgitation may yield a vital return gift when one's own stomach is empty, since a vampire can survive at most three days without food.^{<18>} Such an increase of effect means that reciprocity can survive in spite of the waste that occurs when services are never returned.

Observation of others' actions is a guide to which individuals we should make sacrifices for. If we know that a friend has been helped by someone else and has reciprocated, we are more willing to help him. By contrast, if he has evaded the debt, we doubt his capacity or desire to act reciprocally. The disappointment can thus affect further relationships. This threat of generally negative reactions from the surroundings is naturally a powerful incentive to consistent reciprocal behavior.<19>

In a competitive situation with egoists and reciprocal individuals, it is not surprising that the latter can do better. Cooperation enhances ability and competitiveness enormously in relation to the lone wolf who relies only upon his own effort. The success of reciprocity is due to two circumstances. The recipient's benefit must be greater than the giver's sacrifice, and the likelihood of getting a return service must be so high that a statistical loss will not result from the average evasion of return services. The interval of time between services, and the uncertainty about the other's behavior, causes problems and weaknesses in reciprocity. But the higher the probability of return services, the more strongly reciprocity can assert itself against egoism.

A capacity to behave reciprocally has been anchored in many emotive responses. For instance, sympathy is mutual to a striking extent. The debt of gratitude we feel on neglecting our part of a reciprocal relationship is an emotional reinforcement of behavior which has demonstrated its strength in the process of evolution.

As in all the categories of action, both a good and a bad side exist here, quite close together. Friendship and solidarity are regarded as good, while the same action may be called friendly corruption or partial behavior by someone who has suffered from others' collaboration.

It is important to recognize the individual basis of reciprocity, and it will be useful in the following discussion to draw a clear line between categories of action. Reciprocity and group egoism are particularly easy to confuse. If, for example, an action benefits people with the same school tie or the same profession, this is not reciprocity but group egoism. One can expect members who see one obeying the group norm to consider one loyal and offer one help; and the group is strengthened if solidarity is not shown toward members who betray the group's fellowship. Union members often think worse of strike-breakers than of anybody else. In sum, belonging to a certain group is not enough: avoiding violation of its norms is crucial.

Yet if someone cooperates with a personal choice of individuals, reciprocity is involved. In this category of action, too, one's effort for others will influence whether one is judged serious and helpful. The difference is that this judgement does not at all benefit from displays of broad generosity toward a group, but from evidence that one distinguishes sharply between friends and enemies on an individual level. The key is service in return, instead of solidarity.

Central to a reciprocal attitude are return services - not services in general, which also appeal to other aims and may suggest

that a person serves indiscriminately, flaunting his welfare, advertising his generosity or trying to help his fellow human beings. These motives can apply to parasites as well as reciprocators. As Floyd Patterson remarked, "When you got millions of dollars you got millions of friends." Only a return service exposes and reinforces the reciprocal character of a relationship.

2.5 Altruism

Our last category consists of selfless, altruistic actions. We mean here actions that are not motivated by an indirect advantage. There is no reciprocal intent; neither are sacrifices for children and other relatives to be included.

While these restrictions are justified, there are some which tend to deprive altruism of its content. If one attempts to emulate Jesus by giving one's coat to a drunken beggar, has one not plausibly done an altruistic deed? But if one knows that the poor man is a black sheep from a financier's fold, or a rising star in the firmament of fine literature, we may well suspect an assurance of reciprocity. If a TV team is standing across the street, and one has a nose for publicity, it would also be hasty to imagine that the act is due to humane sympathy. Even if no such circumstances exist, a motive of self-interest is sometimes inferred. The giver might find it more worthwhile to feel himself good than to keep his coat on. Thus, in a subjective sense, he makes no real sacrifice. Altruism is absent, as was to be proved.

This is sterile reasoning. To define a term as either all-embracing or absurdly limited does not advance the analysis. It becomes a sort of sophistic gymnastics, putting our patience to a tougher test than our opinions. Without denying that a feeling of goodness can motivate, we shall leave out such subjective arguments and take the expected objective effects as decisive for the category. If an action yields a sacrifice greater than the positive expected effects for the subject himself, then the action is altruistic.

After this clarification, a few words about altruism in the animal world are appropriate before seeking it in human societies. Many authors have reported behavior which is supposedly altruistic, but where closer study reveals other and sounder explanations. Almost always, a preferable cause is kin selection - and the proclaimed example of animal altruism evaporates. Theoretically, it is also obvious why altruism has serious difficulty in enduring as an evolutionary strategy.

The possibility of altruism arises if reciprocal behavior is so established in a population that it can become profitable to neglect the performance of return services. It may pay to be actively generous even if very few parasites emerge, since there is a cost in verifying that services are returned: one must keep track of who has done what, and experiment with small exchanges of service, and so forth.<20> Avoidance of this cost gives altruism an opportunity to occur in a

strongly reciprocal population. But the problem is that, without watching for parasites and demanding equivalent favors, pure egoism will soon take over.

An altruistic environment would be a paradise for egoism and new egoistic mutations. Individuals carrying such genes could exploit other animals and devote themselves to maximizing their own reproduction. Along with their offspring, they would consume as many resources as they needed, while altruistic creatures would find life ever harder and become fewer in each generation. As a strategy, altruistic behavior would quickly prove impossible and vanish. Still less hopeful are the chances of an altruistic mutation thriving in an egoistic environment. Consequently, altruism cannot exist as a stable evolutionary strategy, but only as a brief form of transition from strong reciprocity to pure egoism. This logic is so fundamental that everyone who is attracted to altruism as a system must consider the problem: altruism's inherent self-destructiveness. How can a system be expected to work smoothly when it undermines its own existence?

The lack of altruism in nature is usually viewed in two ways. We may be depressed and a bit more pessimistic about the potential for altruism, or we may regard the lack as a sign that human culture is superior to the animal world. What distinguishes us from animals is, perhaps, neither our brain nor belligerence, but altruism. Let us peer further into the depths of human altruism.

On the private plane, some acts are committed which involve vast sacrifices and deliver huge profits to the recipient. There are people who donate a transplanted kidney to another person (the act belongs to a different category if the recipient is a close relative). But trying to rescue a person from drowning at the risk of one's life is more often used to illustrate altruism. Whoever is rescued has every reason to feel a debt of gratitude, and the hero can count on public admiration, so he reaps a certain reward. If he is able to minimize his own risk, the act may not result in any personal loss.

The heroic efforts of an alcoholic's wife are also an instance of sacrifice that can exceed what she gets in return. It is possible to balance the calculation by adding a subjective urge, and examining her actions in psychological terms; but from a material standpoint they do amount to sacrifice. Unfortunately, this is of dubious benefit to the recipient. Will he recover, or will his predicament simply become permanent, so that the effect is dwarfed by the effort?

Far more frequent are small acts of altruism. Blood donors seem, as a rule, motivated by desire to do a good deed - yet many such acts can be interpreted otherwise. Tossing a coin into a collection box is altruistic, unless observed by enough people to qualify as conceit. Self-advertising is occasionally an integral part of the altruistic enterprise, as when a red feather is stuck in one's lapel to show that one has contributed to a philanthropic project. Given this bonus, the interest in making contributions is multiplied, rather more discreetly and elegantly than with a sign saying "Here walks a considerate human being". However, it is not the only possible purpose of the symbol. An alternative is the innocent wish to influence one's fellows for a

worthy cause by setting a personal example. One need not have given the slightest thought to self-benefit.

We all enjoy the company of an altruist, and do our best to avoid parasites. The very reason is that we ourselves are not altruists. We dislike being exploited as if we were altruists, and stay on our guard against parasites. On the other hand, we scarcely object to partaking of an altruist's generosity. To stand out as an altruist, then, is not chiefly to exhort the "better" side of people, but is a good way of gaining social approval by appealing to their "worse" side.

A prominent activity of the state, always supported by lofty and altruistic motives, is the military. The state strives for a monopoly of violence in its own society, but the problem of violence toward other states will concern the following discussion.

Men who fight against an invading army of genocidal intent are acting rationally in terms of kin selection, when they risk their lives to save their families. While kin selection has seldom been a cause of war during recent millennia, quite a few wars - both offensive and defensive - can be viewed as acts of group egoism. Wars that include plundering may often be rational according to group egoism: the warriors take clear risks, but these are justified by the opportunity for booty. Group-egoistic offensive war finds an old example in the raiding voyages of the Vikings.

In numerous other wars, the soldier has had little to win and his life to lose. It is not a question of defending his family, which has frequently stayed well out of danger, at least in one of the warring states. Nor do the soldier's salary or chances of plunder provide a sufficient motive; the rational balance must be restored somehow. This is where altruism serves a function. The soldier needs a higher aim to motivate his great risk. Raising people's readiness to risk their lives for the state is a serious moral and social task, with various justifications. An historic mission, God's will, a thousand-year Reich, the triumph of the proletariat, the victory of democracy, and a war to end all wars, are among the commonest candidates.

When the compensation for a sacrifice is very large, it becomes debatable whether the act should be considered egoistic or altruistic. Religious warriors tend to expect a divine reward. Islam has gone the farthest by guaranteeing a place in paradise to whoever falls for the faith. Philosophers might thus ask if the believer is sacrificing his life in that spirit, or egoistically taking a free ticket to eternity - retrospective payment for a mercenary of Allah. His loss seems small in comparison to the prize, as long as he trusts the Koran, which the believer presumably does. Should he then be called an egoist? Again, it is wise to rely more on material reality than on subjective credulity. Even if faith is strong, it moves no mountains, despite assertions to the contrary.

Those who believe in eternal life appear to fear death nearly as much as atheists do. The divine alternative is never proved, and remains an hypothesis - with less influence on action than it should have, according to the faith. Uncertainty about paradise affects the most deeply devout, for suicidal soldiers are extremely

rare and the idea of defying death goes little beyond military pep-talk. Photographs have shown eloquent piles of boots in abandoned Iranian trenches: head over heels, the owners fled, ignoring the promise of paradise. They kept in mind that, if death caught up, they were required to stand barefoot before the Almighty; some concession is made to rules of religion. Still, other rules can be too hard for a true believer to accept. Life is so dear that heaven has to wait.

Death is a sacrifice difficult to compensate. Yet with any hope of continued life in this miserable world, a believer can take greater risks. Therefore, religion motivates more than ritual adaptation. Although few soldiers want to die, divine sympathy makes the struggle somewhat easier. A member of God's militia trembles at the threat to his physical existence, but fairly succeeds in persuading himself that his sacrifice is a worthy duty. He deserves to be called an altruist, not an egoist.

The ability to stimulate participation in a crusade for ideals is one important function of religion and other ideologies. While it may be deplored as a mere abuse, the fact is that abuse constitutes part of usage - and sometimes the major part, as in the case of narcotics. A comparison with opium is perhaps not so misleading: could this apply to religions in a wider sense?

At any rate, an altruistic philosophy is normally one ingredient of a war, and it definitely does not make war more humane. During a period until the French Revolution, wars were commercialized to a degree. Each side employed mercenary soldiers, and the warfare had ritual features. For instance, one did not commit all one's troops to a battle, but fought with representative forces. The victors often did not pursue the defeated, and at times suffered heavier losses. A mercenary had scant motivation to risk his life in a pursuit, the main interest of victory being a fat bonus.

A radical change occurred with Napoleon. Chasing and killing as many foes as possible after a victory became a key component in strategy, as did the assembly of maximum forces for a decisive clash. The enemy had to be crushed. <21> Armies of conscripts swelled the ranks, survival chances sank, and the pay plummeted. This was made feasible only by a new motivation - the French soldier fought for "liberty, equality and fraternity". Visions cost little, enabling the war budget to be spent on armaments. Since the French Revolution, states in general have adopted conscript armies and developed nationalistic political ideals.

Napoleon also appealed to a more egoistic motive: "In the Revolutionary Army, every soldier carries a marshal's staff in his rucksack." The tradition has lived on, but plainly offers a dangerous career. From a rational perspective, war is still a predictably losing business for the ordinary soldier.

People have both killed and risked their lives with egoistic intentions. Mafia-like liquidations, and robbers who murder, are widespread. Even so, and without any wish to tone it down or show "understanding" for it, crime can be used in a comparison. Organized and disorganized criminals have fewer lives on their consciences than

do institutionalized state powers. Of all violent deaths, the vast majority have owed to conflicts between states.

A banal distinction is made on occasion: egoistic wars are bad and needless, while altruistic ones are good and necessary. Our reasoning leads to a different point of view. It is not least the altruistic wars which should be focused upon and questioned.

Altruism's role as a mobilizing argument is undoubtable. The ideals involved have varied through the centuries, but it seems certain that altruism is a common element in such a huge self-sacrifice as risking one's life for something. There are grounds for reflection about the conventional notion that war and altruism are mutually exclusive. By most indications, they are empirically and logically inseparable.

2.6 Human behavior

The five preceding categories - egoism, kin selection, group egoism, reciprocity, and altruism - are a useful basis for further analysis. Within each category, anybody can find actions and situations which he or she thinks good or bad. The function of actions is important for an interpretation, and thus for an evaluation, not only of individual acts but - to an even greater extent - whole categories of action.

Human societies contrast in many respects. They correspond, however, in ways that emerge from these five categories with an evolutionary outlook. Large deviations exist for some subcultures, like monasteries where kin selection has been replaced by a nonbiological brother- and sisterhood; but for complete societies, the pattern is more uniform. The speed of economic and technical process does not blur fundamental similarities in people and their behavior across borders of space and time.

We have to regard actions in themselves as primary, rather than as depending on statements about motives, or even as results of conscious motives. This independence is clear among animals, which of course do not make deliberate calculations of probability when they respond to a kinship factor. The gene is a recent discovery, and has not yet shed its aura of academia; nonetheless, it controls people who are unaware of its existence. The cultural surface may be diverse, but beneath a layer of beliefs is a shared reservoir of real motives, which have been influenced relatively little.

Kin selection, group egoism, and reciprocity together account for a large class of actions between the poles of egoism and altruism. According to many moralists, the chief frontier runs between egoism and other actions. A more frequent and thoughtful approach is to look beyond the direct self-interest of egoistic actions, and to add the more indirect self-interests of reciprocity and group egoism. In evolutionary terms, genetic self-interest is the central agency; indeed, it is the mainstay of the scientific model for explaining all life on earth. Genetic interest comprises, apart from individual

interest in oneself, an interest in people who have a high proportion of the same genes as oneself. Such gene interest, or broadened self-interest, combines four of the categories but excludes altruism. It is between this "gang of four" and the altruistic alternative that, in our opinion, the essential boundary lies. This opposition of altruism to other behavior is also how the Sermon on the Mount, like much of moral philosophy, formulates the problems of ethics and action.

The following figure visualizes the five categories.

Of these categories, only altruism can be regarded as a pure product of culture, although it does have roots in the others. To be sure, the other categories may be affected by culture in their specific expressions. Lending a car to a neighbor, and doing homework with a daughter, are comparatively novel kinds of actions, but not difficult to place in this Darwinistic scheme. The proportion of behavior that is really new depends on which time perspective one chooses.

No statistical study underlies the differences in size between categories of action. They are only meant to illustrate relationships which the reader will presumably estimate in the same manner as we do. How do people divide time and resources among tasks such as reading, dining, caring for children, community life and blood donations? A "normal" person does many things which can be classified as egoistic, thus increasing the size of that category. Further, he or she performs a smaller number of actions which qualify as altruistic, despite intensive advice to do more. The three other categories then have an intermediate size.

It should also be emphasized that this classification is functional and not normative. The point of departure is that all categories include actions which can be seen as good or bad according to one's norms of value. We consider this method far more fruitful, even in an analysis which is to yield normative conclusions, than the conventional procedure of pitting a pervasive, evil egoism against a modest, virtuous altruism.

2 Summary

By tradition, moral philosophy divides actions into two types - egoistic and altruistic. Evolutionary biology deals with more categories of action that offer a basis for improved analysis. We distinguish five categories, all founded on the expected effects of actions. Four of them - egoism, kin selection, group egoism, and reciprocity - benefit the individual's genetic interest and may be described as "broad self-interest". All animal, and most of human, behavior is assignable to one or a combination of these categories. Altruism, defined by an excess of expected cost over profit for the

acting individual, is distinctive and not a stable strategy in evolutionary terms. Even if one can imagine a society of altruists, it could not endure: egoists would exploit it, take over, and become its sole inhabitants. To a limited extent, though, altruistic actions of various types are possible and their results have been discussed above. Our inference is that the chief effects of altruism lie in sacrifices for wars where the individual has little to gain.

Notes Chapter 2. Actions in nature and culture

1. Strindberg *Utopias in Reality*, preface.
2. Hamilton (1964).
3. Dawkins, *The Selfish Gene*, presents this perspective in a pedagogical manner. He uses the concepts of "replicators" for genes and "vehicles" (survival machines) for individuals.
4. Trivers (1974).
5. Bertram (1975). Infanticide in other animal species, including man, is treated by Hausfater & Hardy (1984)
6. Alexander (1974).
7. Low (1992), Van den Berghe, *Human Family Systems: An Evolutionary View*
8. Flinn (1981).
9. This pattern is explained only partly by which parent cares for the child, since it is only six times more common that the child lives solely with the mother than solely with the father. See Van den Berghe, *Human Family Systems: An Evolutionary View*, p. 190.
10. Daly & Wilson, *Homicide*.
11. *Newsweek*, April 20 1992.
12. Williams *Adaptation and Natural Selection*.
13. Turner & Pitcher (1986) have studied the value of an individual's living in a group, depending on the combined probability of being discovered and then attacked.
14. Hamilton (1971) uses the expression "selfish herd".
15. Wilkinson (1984).
16. See Mackie *Ethics, Inventing Right and Wrong*, p.170.
17. Trivers (1971) introduced this concept.
18. Wilkinson (1984).
19. Alexander, *Biology of Moral Systems*, sees such indirect reciprocity as the social foundation of human society.
20. A theoretical study by Enquist & Leimar (1993) shows that it is costly to be suspicious, not only for the parasites

("free riders"), but also for reciprocal individuals since cooperation is delayed.

21. Clausewitz, *On War*.