How Culture Induces Altruistic Behavior

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Paper prepared for presentation at the Annual Meetings of the American Sociological Association, Pittsburgh, PA, August 1992.

Abstract

Sociobiologists have explained altruistic behavior by way of kinship theory and reciprocity theory. Nevertheless, there appears to be a considerable amount of human altruistic behavior that cannot be explained by either of these two theories. While it is tempting to appeal to culture to explain such behavior, it is not so easy to develop a convincing argument. One essential part of the argument, addressed by this paper, is to explain how it is that culture can induce altruistic behaviors that run contrary to genetic predispositions. Taking an evolutionary point of view, I argue that culture induces such behavior by shaping and misdirecting tendencies toward kinship altruism and reciprocity. With regard to kinship, one example is the common usage of kinship terms to refer to nonrelatives. Another is the development and transmission of myths of common ancestry. With regard to reciprocity, we see many examples of how both individuals and organizations work hard to induce a sense of gratitude for past "favors", whether real or imagined. This idea is particularly important in the realm of religion. Several other possible cultural mechanisms are also suggested.

Introduction

Over the past three decades, a good deal of effort has gone into developing satisfactory explanations of human altruistic behavior. The most successful of these explanations have come from the rapidly developing field of sociobiology, which has produced both kinship theory (Hamilton 1964) and reciprocity theory (Trivers 1971). These theories usually presume that altruistic behavior is controlled directly or indirectly by genes, although the notion of reciprocity is also compatible with models that rely on individual learning and cultural transmission (Axelrod 1984). Both the reciprocity and kinship theories are highly plausible, and have also received a modest amount of empirical support.

Nevertheless, there appears to be a good deal of human altruistic behavior that is not explained by either of these theories. Kinship theory implies that beneficent behavior should be directed only toward very close relatives, while reciprocity theory implies that beneficent behavior should be directed towards those with a high probability of reciprocating. Yet, we have many examples of altruistic behavior toward nonkin who have little apparent likelihood of reciprocation (Oliner and Oliner 1988, Etzioni 1988). Alexander (1987) has argued that many such behaviors can be explained by the combination of kin altruism with complex, indirect systems of reciprocity, but recent mathematical formulations have cast some doubt on this hypothesis (Boyd and Richerson 1989).

A rather different approach is to argue that much of human altruism is a product of culture (Campbell 1975, Margolis 1982, Boyd and Richerson 1985, Hill 1984, Lopreato 1984, Simon 1990). While this approach is naturally attractive to social scientists, it is not so easy to devise plausible theories of how culture does what it is supposed to do. There are actually two problems to solve. First, one must explain how it is that culture can induce people to sacrifice their apparent interests in ways that would not ordinarily be expected on the basis of their genetic make-up and/or reproductive interests. Second, assuming that such cultural mechanisms exist, one must explain how they get transmitted and maintained over time and generations. This is problematic because there are reasons to suspect strong selective forces operating against altruistic behaviors. I have addressed this second question elsewhere (Allison 1992). Here I want to focus more closely on how it is that culture can get people to behave altruistically toward nonkin and nonreciprocators.

Actually I shall begin with a somewhat more concrete question, eschewing for the moment the notion of culture. How is it that some people induce other people to sacrifice their own interests for the benefit of people who are not their genetic kin and who are not good candidates for reciprocation? The beneficiaries of the altruistic acts may be the people who are inducing those acts, or they may be entirely different people. Once we have provided some answers to that question, we can then proceed to ask how it is that such behaviors might be culturally sustained.

Defining altruism

Before answering that question, I really need to explain what I mean by altruism since there is so much disagreement on that score. Because my ultimate aim is to explain how cultural transmission can produce behaviors that are puzzling from a genetic point of view, I will define altruism so as to exclude genetic explanations. According to the standard sociobiological definition, an act is altruistic if it increases the reproductive fitness of the recipient while reducing the reproductive fitness of the donor, where reproductive fitness is the expected number of descendants. Now reciprocity theory explains such actions by noting that acts which reduce reproductive fitness in the short run can increase it in the long run—and it is the long run that counts in natural selection. Kinship theory explains such acts by observing that a person's close relatives have a high probability of sharing the same genes. Consequently, acts that sacrifice one's own descendants in favor of close relatives and their descendants can, under certain conditions, enhance the probability that one's genes will be passed on. To put it another way, natural selection favors behaviors that maximize *inclusive fitness*, which is a weighted sum of one's own reproductive fitness and the fitness of one's relatives, with the weights depending on the closeness of the relative.

To exclude genetic explanations, I define an act as altruistic if it increases the inclusive fitness of the recipient while reducing the inclusive fitness of the donor. This is just the standard sociobiological definition but with reproductive fitness replaced by inclusive fitness. I realize that this definition won't satisfy many people because it says nothing about motives or intentions. Although I share that concern, I believe this definition includes those behaviors that most people would describe as altruistic while excluding those that I definitely do not want to explain. That's sufficient for my purposes. I shall also use the term "beneficence" to refer to helping behavior, usually intentional, that may or may not be altruistic.

It will be seen that there are lots of possible ways to induce altruism of this sort, some obvious and some not so obvious. My objective here is to provide an orderly catalog of possible mechanisms, together with detailed explanations, but with no attempt to rank them in importance. I shall take the point of view of someone who has taken on the task of increasing the range, frequency or intensity of altruistic behavior among some set of people, and who needs to devise some means of doing that. I shall also assume that this individual has a substantial but finite set of resources with which to work. Much is possible, therefore, but efficiency is important—we want to get the maximum results from the resources at our disposal.

In any task of this sort, it is essential to know a good deal about the material you have to work with, in this case the human psyche. For one thing, it is helpful to know what kinds of behavioral tendencies are closest to those behaviors that we want to elicit. Assuming that the sociobiological theories are at least partly correct, we already know two such tendencies: people tend to be beneficent toward their close kin, and they tend to be beneficent toward those who have done favors for them in the past or who are likely to reciprocate favors they receive. In both cases, the concrete behaviors are exactly what we are looking for. The objective is to invoke them under somewhat different conditions. Of course natural selection works in just this way, by gradually elaborating and developing those structures and traits which, at first, only accidentally performed certain adaptive functions.

The shaping of kinship

Let's consider kinship first. In order for genetic kinship mechanisms to work, it is necessary that people be able to reliably identify their close kin. The most obvious means is simple association early in life. We know who our parents, siblings, and children are because we (usually) live with them from their (or our) earliest appearance on the scene. For other relatives, however, we typically rely on verbal communication by those we trust. Thus, our parents tell us who our aunts, uncles, cousins, and grandparents are. Given this, one possibility is to convince two (or more) people that they are kin when they really are not, or at least not close kin. This might be done by making up a story about an ancestor that the people have in common. Of course, this is likely to be most effective when the story is very dramatic, and when the purported ancestor is one whose deeds inspire admiration and respect. Notice that such a strategy—if successful—could be extremely cost-effective. It takes very little in the way of resources to devise and propagate a story; indeed, a good story may propagate itself. On the other hand, it may take substantial knowledge and skill to come up with a story that is both attractive and convincing.

There is, in fact, a great deal of evidence that myths of common ancestors are widespread in both traditional and modern societies. Perhaps the best known myth among Westerners is the Biblical story of Abraham, Isaac and Jacob (Israel), and the subsequent descent of Jews from Jacob. Among religious Jews, there is a constant reiteration of the theme of common descent, with Abraham often referred to (in Hebrew) as *Avraham avinu* (our father). Muhammed later borrowed and adapted this myth to develop the idea of Arab descent through Abraham's other son, Ishmael (who actually replaces Isaac in some stories found in the Koran). Of course the Bible goes farther in postulating Adam and Eve as common ancestors for all humans, a fact which traditional Jewish commentators regard as of the utmost importance in establishing mutual obligations among all of humanity.

Such ideas are not restricted to ancient or traditional peoples. Smith (1984) has shown in considerable detail that the development of new myths of common descent played an important role in the rise of nationalistic movements in the 18th through 20th centuries. This myth making was typically the province of historians and other intellectuals whose skill at symbol manipulation and whose established credentials lent plausibility to their claims.

Another way to get people to "feel" like kin even when they are not is by having them use kinship terms that are genetic falsehoods. This is almost universal in "fraternal" organizations and religious orders, and is also common in trade unions and revolutionary movements. Of course, fraternity "brothers" do not really believe that they are genetic brothers, but the use of the term in both colloquial and ritual settings can evoke a sense of brotherhood that establishes powerful emotional bonds—bonds which may lead to self-sacrificing behavior, particularly when a "brother" is threatened with harm.

Perhaps the strongest urge toward beneficence, and the one with the most obviously genetic basis, is the desire of parents to nurture, aid, and protect their children. Is there any way to harness these tendencies and redirect them toward those who are not genetic children? This would appear to be somewhat more difficult than in the case of cultural brotherhood. We find it acceptable to imagine that all people are our brothers and sisters (in some sense), but to imagine that all children (or all future generations) are our offspring seems rather jarring. For one thing, parenthood is much more particularistic than brotherhood, so that if all these people our are our children, they can't rightly be someone else's children as well. This leads to obvious inconsistencies.

It may be that this sort of beneficence is ordinarily only induced among people who perform specialized roles that are similar to those of a biological parent. The beneficent urges of parenthood seem to arise in those situations in which we are "responsible" for the welfare of other people who are dependent on us. Simply putting people in such positions, and rewarding them or punishing them in accordance with the welfare of their charges, may evoke some degree of beneficence toward them. Thus, teachers, religious functionaries, politicians, managers, and leaders of all sorts may naturally come to feel some obligation to their subordinates that does not directly depend on the sanctions that structure the relationship to begin with. These tendencies may be enhanced by various cultural materials and practices. In the case of Catholic priests, for example, paternalistic inclinations are reinforced by the use of the kinship term "Father".

I have presented these mechanisms as though someone were trying to use them to manipulate others to achieve some objective. Indeed, I have no doubt that such conscious strategies have been and continue to be quite common. The point I want to make now, however, is that once these manipulations get embedded into cultural products, they often get transmitted from one person to another without the ongoing intervention of the creator. In a sense, they can take on a life of their own, a life that may be far longer than a single human life. If an ancestor story is a good one, for example, it will continue to be told and heard for generations. To the extent that it motivates behaviors that promote the collective welfare, it can be thought of as part of the cultural capital of the group to which it is addressed.

Or consider what happens in college fraternities which have a "tradition" that members are to be called brothers. No one reflects on why this is so, nor does anyone imagine what would happen if it were not so. No one seriously considers abandoning it. It's relatively cost free and it makes people feel good. Why does it make them feel good? Well, my guess is that it feels good to think that all these "brothers" are your allies who will help and defend you if it should come to that. Whatever the motivation, however, I am sure there is little reflection on the "functions" of the terminology, either the the elite or by the rank and file.

Not every story gets preserved and not every pseudo-kinship tradition gets maintained, however. There are powerful selection forces that act to winnow and sift through the cultural accumulation of each generation. Those forces are also largely unconscious. I discuss some of them with respect to altruism in my (1992) paper. Boyd and Richerson (1985) discuss more general selection forces operating on culture. To some degree, what cultural elements *do* to people affects the degree to which those elements are transmitted and reproduced. But the aim here is to look only at the short-term consequences, the immediate behaviors and how they are elicited.

The shaping of reciprocity

Besides kinship, the other major sociobiological theme is reciprocity. There seems to be widespread agreement that we are genetically programmed to be good reciprocators. Why? Because reciprocal beneficence appears to have been a major feature of human social life stretching back to our prehuman ancestors, and because the adaptive advantages of participating in ongoing reciprocal relationships are enormous. Some of these advantages are symmetrical: If I help you when you're attacked, and you help me when I'm attacked, we'll both be better off. Other advantages depend on specialization: I'm strong but you're smart. I'll protect you when enemies attack, and you can plan fortifications to discourage attacks. There is every reason to believe that our ancestors, both human and protohuman, were persistently exposed to very powerful selection pressures favoring those behaviors that supported the establishment and maintenance of reciprocity.

The important thing to remember about reciprocity is that whenever there is a time delay between the giving of a favor and the return of a favor, there is a danger of exploitation. Special mechanisms are necessary to sustain reciprocity in the face of a temptation toward exploitation. Formal theories of reciprocity suggest that three sorts of behaviors are crucial in this regard (Axelrod 1984). First, we should have a tendency to return favors that are received from any one with whom we have repeated opportunities to interact. Second, we should have a tendency to take the initiative in giving favors when there is a likelihood that they will be returned in the future. Third, we should have a tendency to "punish" those who do not return our favors.

The emotional mechanisms that lead to people to return favors that they have received are variously referred to as gratitude, obligation, or guilt. It is unclear, however, whether these are distinct emotional processes or just different names or stages for a single process. But that question need not concern us here. Rather, we want to know how can we capitalize on these tendencies in order to induce beneficent behavior. The manipulation of gratitude is surely one of the most potent means of getting people to help other people. The obvious way to induce feelings of gratitude or obligation is to convince someone that you've done him a favor, or that someone else has done him a favor. That would not be cost effective if you actually had to do the favor to get the result. But often we can persuade people that we have helped them when we really haven't. Or we can persuade them that the favor we did for them was much greater than it actually was. For example, an employer might tell a worker that she's getting a higher wage than she could get elsewhere, or that he is giving her special privileges. Neither may be true, but the employee may find it quite difficult to verify the claims. If she believes them, that may induce her to do favors for her boss.

Parents have an incentive to persuade their children that they are selflessly working for their welfare. After all, the time may come when they need their children for material support. Governments work hard to persuade their citizenry that they protect them from harm and anarchy, and supply them with essential services. Similarly, a major function of the honoring of war heroes and other military veterans is to invoke a sense of gratitude that, at the least, will inspire citizens to perform their ordinary civic duties, but also to participate in and support military actions whenever called upon. It thus appears that a substantial portion of the complex of attitudes we call "patriotism" consists of gratitude to one's country.

As in the case of kinship, these "manipulations" of gratitude seem to get readily embedded into cultural forms that either get passed on without any active intervention, or else serve as a cultural "tool kit" (Swidler 1986) for those leaders who need to motivate their followers.

Without any doubt, the most effective institutions at inducing gratitude are religions. As I was in the process of writing this paper, I just happened to be reading a book by a rabbi in which he makes the following statement: "To make God the vital center of our lives in the hour of triumph means to regard ourselves under obligation to return to Him a portion of the physical and financial means with which he has blessed us" (Greenberg 1990). This single sentence is a paradigm for the argument that is so basic to all the major monotheistic religions: All good things are given to us by God. We therefore owe God something in return, either by contributions to religious institutions or by extending our beneficence to other people. For those who believe it, this is a powerful argument that can motivate extraordinary levels of self-sacrificing behavior.

Individual religions supplement this basic argument by pointing to more specific things that God has done for them. In this respect, Christianity has no equal. What more could God possibly do for us than to take on human form, endure brutal torture, and die a horrible death, all to save us from eternal damnation. Now there's a debt of gratitude that will never be equalled. The Jewish debt pales by comparison, but it's still been a potent force. The key events that are stressed again and again in the both the Torah and and the Jewish prayerbook are the liberation of the Jews from slavery in Egypt, and the subsequent giving of the Torah on Mount Sinai. The exodus, in particular, is repeatedly and explicitly cited as the principal reason why Jews are obligated to obey God's laws. Thus, the opening line of the ten commandments is "I am the Lord your God, who brought you out of the land of Egypt." Were the writers of the Torah and the Gospels consciously constructing these documents to evoke gratitude and a need to reciprocate? My guess is that they were, at least at some level. When you want to motivate people to do something costly without obvious benefits, you use any arguments that you can marshall. You may *believe* those arguments yourself, of course. But then again, maybe not. In any case, once the stories and documents are produced and propagated, the motives of the originators are irrelevant. The pen *is* mightier that the sword, largely because the dissemination and preservation of documents is not necessarily dependent on the efforts of their creators. And to the degree that documents can generate successful collective action, the likelihood of further dissemination and preservation is enhanced.

One of the remarkable things about the indebtedness-to-God stories is that they solve a key problem in reciprocity theory. Reciprocity works great when you only have two people engaged in ongoing interactions. But it easily breaks down as a mechanism for motivating large numbers of people to contribute the common good (Hardin 1982). There are several reasons for this, perhaps the most important being that a few defectors can lead to reciprocal defection on the part of everyone else. The religious ideologies just described, on the other hand, have everyone reciprocating with a single individual—God—with the form of that reciprocation being contributions to the common good or unreciprocated beneficence to other individuals. Thus, even though the true collective action problem is a multiple person dilemma, each individual perceives it as a case of dyadic reciprocity.

Other strategies

We have seen how culture can shape behavioral tendencies toward kinship altruism and reciprocity so that they are directed towards recipients that would not ordinarily be favored by considerations of genetic fitness. There are other, less obvious tendencies that can be similarly exploited. As Jencks (1990) has noted, the delay of gratification can be thought of as altruism toward our future selves. We endure costs in the present, so that our future selves can reap more than compensating benefits. While Jencks goes on to speculate how empathy for our future selves can facilitate the development of empathy for others, the capacity to endure costs in the expectation of future benefits can also be directly harnessed by cultural devices to induce beneficent behavior.

Turning again to religion, the classic device is the promise of a post-mortem eternity of bliss as a reward for, among other things, beneficent behavior toward others. Social scientists have not paid much attention to the consequences of such beliefs, possibly because of their familiarity and because of their own contempt for them. But there can be no doubt that millions of people have placed unquestioning belief in such stories, and it is hard to see how they could *not* have had some influence on everyday behavior. Sure, there is plenty of hypocrisy on the part of religious believers, but the failure of people to live up to a standard doesn't mean that the standard has no influence on their behavior. As Campbell (1975) has observed, prevailing behavior may be a compromise between genetically governed selfish tendencies and promulgated standards that no one could realistically fulfill. If the standards were lowered, the point of compromise would also be lowered.

Some may complain that beneficence in the expectation of a future reward, however distant, is not true altruism. In my view, that's just a terminological dispute. The point is that the behaviors serve the same function as those motivated by gratitude or empathy, and they would not be predicted on the basis of genetic fitness considerations. Moreover, the elicitation of such behaviors does not require any actual application of rewards and punishments by individual or collective actors. In that sense, it is an extremely cost-effective strategy.

In the U.S. today, a less potent but perhaps more plausible story is the widely-promoted notion that doing good is good for you. Volunteer work will (a) make you feel better about yourself, (b) give meaning to your life, (c) improve your psychological well-being. There is some minimal research tending to support these claims, but hardly enough to assert them as proven facts. Yet, millions of people believe them, and apparently cite them as important factors in their decision to engage in volunteer activities (Wuthnow 1991). Who is making these claims and why? Why do people so readily believe them in the absence of firm data? I don't have answers to these questions, but I think they deserve investigation.

Another behavioral tendency that can be harnessed to produce altruistic behavior is the inclination to imitate others, especially others who are in similar social positions and who are "successful", by whatever criteria. There is ample evidence in the social psychological literature that altruistic behavior can be learned from models (Rushton 1980). Elsewhere (Allison 1992) I have considered mechanisms by which altruism can be transmitted by the imitation of directly observed behaviors. Here I want to consider the imitation of other people who are not directly observed, whose behaviors are reported to us verbally or through various cultural media. Even when observation is direct, there is a danger of misperception or deceit. But these dangers are manifoldly increased when knowledge of others' behavior is mediated by stories. Jesus, for example, is presented in the Gospels as a model of compassionate, self-sacrificing behavior. We don't know how accurate that portrayal is, but we can be sure that the Gospel writers had no incentive to report any character flaws. We should not underestimate the impact of idealized portrayals of famous people as being exemplars of self-sacrificing behavior in the service of the common good. Even patently fictional stories can be effective. Wuthnow (1991), for example, has documented the enormous importance of the Good Samaritan story in shaping people's attitudes and behaviors in regard to volunteer activities.

Not only the content but also the frequency of reported behaviors can be a significant factor. The venerable notion of "pluralistic ignorance" (Allport 1924) is clearly relevant here. Consider the following example. Wuthnow (1991) cites survey data showing that 45% of all Americans age 18 or over currently participates in some kind of volunteer activity. Those that volunteer contribute an average of five hours per week. Impressive figures, but are they accurate? We can be almost certain that there is some exaggeration in these self reports— maybe only a little but maybe a lot. Now suppose that these figures were widely reported in the media. I suspect that a great many people, on reading these numbers, would think "Gee, if that many people are doing it, maybe I should think about doing it too." So the reported numbers could have an effect regardless of their consonance with reality. As a general rule, we may hypothesize that "the more people believe that other people are engaged in beneficent behavior, the more likely they are to engage in it themselves."

Discussion

I have suggested several ways in which people can persuade other people to engage in helping behaviors or contribute to the collective welfare when it is not in their (genetic) interests to do so. The general strategy is to mislead or redirect those behavioral tendencies, like reciprocity and kin altruism, which approximate the kinds of behaviors that are desired. Induced altruism is well known in the animal kingdom (Badcock 1986), so we should hardly be surprised to find it among humans. The difference is that once such persuasion becomes symbolic, it opens the possibility for symbolic packages to be transmitted and propagated by those who no longer have any personal interest in inducing altruistic behavior. To the degree that the altruistic behaviors can be directed towards propagating the symbolic packages, or to maintaining the system that does the propagation, the whole process can become self-sustaining.

I believe that we depend heavily on such processes for our collective wellbeing. The cultural mechanisms that support altruistic behavior are an important part of our accumulated cultural heritage, and we would be in a very sore fix without them. The danger is that, if my analysis is correct, to a very substantial degree these mechanisms rest on deception. Some of that deception, like calling nonkin brothers or sisters, we are aware of and go along with. It seems both helpful and harmless. Other sorts of deception, however, are believed without question by large numbers of people. If and when those falsehoods are exposed, the whole process can come crashing down. Since we live in an age that puts a high premium on exposing falsehoods, the danger is considerable, and we may already be experiencing many of the undesirable consequences. It would seem worth investing a great deal of thought as to whether and how such traditional cultural mechanisms should be protected, and what they might be replaced with.

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