Altruists at War

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A Co-operative Species: Human Reciprocity and Its Evolution
by Samuel Bowles and Herbert Gintis.
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How is it that the members of a species as greedy, quarrelsome, egoistic and deceitful as ours still manage to live together in societies sufficiently harmonious and orderly not to be constantly breaking apart? Mid-20th-century sociologists used to call it 'the problem of order', which many of them saw as constituting the raison d'être for the academic discipline of sociology. But they didn't have much success in solving it. The 'structural-functionalists', who stressed the normative and integrative aspects of human social organisation, were answered by the 'conflict theorists', who stressed the constant struggles between incompatible ideological and material interests. Politics came into it too, as sociologists for whom the US was the showpiece of enlightened liberal democracy clashed with others for whom it exemplified unbridled competition, entrenched racism and the systematic exploitation by the rich of the poor.

But from the 1970s onwards, the question was being reformulated in a way of which most sociologists remained studiously unaware. The impetus came partly from evolutionary biologists, who saw the problem not as one of 'order' but 'altruism'. But it came also from psychologists, anthropologists, archaeologists and game theorists, who between them not only restated the problem in different terms but developed new methods with which to address it. They set themselves both to demonstrate the extent to which present-day human beings are genuinely disposed to co-operate with each other for reasons other than self-interest, and to explain how such behaviour could have evolved under the conditions in which our anatomically and psychologically modern ancestors lived for many tens of thousands of years.

Altruists are people who do things that benefit other people at a net cost to themselves. In biology, cost and benefit are measured in terms of reproductive fitness, so the difficulty is to explain how natural selection could favour individual loss of fitness for the benefit of the group to which the individual belongs. That question was effectively disposed of by W.D. Hamilton and others, who showed how altruism, as a strategy transmitted either genetically or culturally (or both), can spread in a population provided that its carriers are more likely than they would be by chance to receive a benefit from those with whom they interact. In populations both small and large, individuals will not only subordinate their selfish interests to the interests of close relations but offer help to strangers if they anticipate receiving a benefit in return. But so-called 'reciprocal altruism' isn't authentically unselfish (as admitted by Robert Trivers, who coined the phrase) if the anticipated benefit is greater than the immediate cost. It's therefore just as well for us all that altruism takes other forms too. People often bear costs not only in reproductive fitness but in material resources, discomfort, time and trouble, and personal risk for the sake of others besides family and friends even if they expect no return from them and have no ongoing relationship with them. Helpfulness, generosity and courage are admired and imitated, and free-riders, promise-breakers, thieves, cheats and fraudsters are disliked and shunned. What's more, people are willing to punish those whose selfish behaviour they disapprove of even when they have not suffered directly from it themselves. But the cynics still need to be convinced that this is what's really going on. Isn't it too good to be true? Is altruism merely self-interest in disguise?

During the past few decades, an expanding number of ingenious game-theoretic experiments, supported by formal mathematical models and computer simulations, have been devoted to establishing how widely, how consistently and under what conditions people are willing to trust one another, to contribute voluntarily to the public good, to discipline defectors and shirkers, and to refrain from pursuing rational self-interest to its logical limit. At first, the experiments were criticised for being too restricted in their choice of subjects and too remote from the conditions that obtain in the real world. But they have by now been conducted in widely differing cultures and societies and have been supported by the observations of anthropologists working in the field. Samuel Bowles and Herbert Gintis have themselves made influential contributions to this literature, and they come down firmly against the cynics. They do not believe that our other-regarding social preferences are all covert manifestations of self-interest, and insist on the authenticity and force of the emotions of guilt and shame which underlie and reinforce them. The *homo economicus* of rational choice theory would never behave as do experimental subjects from all over the world who forego a proferred material gain because they disapprove of individuals who fail to follow the social norms of their group – norms which are culturally variable, but not randomly or unlimitedly so.

It is true that under some conditions, whether in the laboratory or in the field, individuals will be motivated by the wish to win prestige by appearing to others to be more generous, collaborative and punitive of non-co-operators than they really are. No less than conspicuous consumption, conspicuous gift-giving can simply be a means of showing off. But not always. It doesn't follow from the fact that people sometimes behave well only because they're aware of being watched that they never behave well if they aren't. Nor does it follow from the fact that a population of good Samaritans would be quickly overrun by an invasion of charlatans that there are no good Samaritans at all. The good guys aren't going to drive the bad guys to extinction, but neither are they going to be driven extinct themselves; and in time, populations with more good guys among their members may outcompete the populations with fewer – a possibility explicitly envisaged by Darwin in *The Descent of Man*.

But how (on earth) did this come about at all? Hamilton, in his seminal paper of 1975 on the 'innate social aptitudes of man', pointed out that to devise a multi-level model in which a positive group-selection term outweighs a negative individual-selection term gives no guarantee that altruism will evolve; it has to be shown how the population can get into the requisite state and whether the trend by which it does will continue. We therefore need to know what happened to cause enough of our distant ancestors to behave co-operatively enough despite the selective pressures favouring self-interest over altruism. The ethnographic record doesn't tell us, because the environment of the surviving hunters and foragers observed in the 19th and 20th centuries is too different from that in which our forebears' distinctive ways of life and associated psychology made us into a co-operative species to a greater degree than any other. But we do, all the same, know quite a lot about the climatic, ecological and demographic environment in which the hunting and foraging bands of the late Pleistocene and early Holocene organised their internal relationships and their relationships with other bands. There were lots of them, even though overall population growth was low and extinction rates high. They were migratory and exogamous. They traded with each other and fought each other. They were skilled in the use of hand-tools as well as lethal projectiles. Their members were not sufficiently closely related for kinship alone to explain altruistic co-operation within them, but they shared a common interest in pooling resources and keeping would-be self-aggrandisers in check. It wasn't Hobbes's state of nature, but it wasn't Rousseau's either.

The achievement of Bowles and Gintis is to have put together from the many disparate sources of evidence a story as plausible as any we're likely to get in the present state of the behavioural sciences of how human beings came to be as co-operative as they are. Conclusive demonstration is, as they acknowledge, unattainable. But there has to be a just-so story that is convincing. If altruistic strategies can proliferate through genetic and cultural co-evolution even when initially rare, and if in some human sub-populations behaviour patterns that were individually costly but group-beneficial evolved with the help of reproductive levelling (including food sharing), then groups with a higher proportion of altruists will have been more likely to reproduce more successfully. The benefits have to exceed the costs by a sufficiently large margin. But this condition was met in the frequent episodes of co-ordinated violence against out-groups attested in the archaeological record. Inter-group hostility both generates and sustains intra-group solidarity and 'strong reciprocity' – readiness, that is, to punish not only those thought to be letting the side down but also those who refuse to join in punishing them. Human beings aren't the only species to engage in sometimes lethal inter-group competition. But they are unique in the physical and mental capacities that made it possible for groups to hold together over successive generations through a combination of collaboration among themselves and hostility towards others. If that's not what happened, what did? The account given by Bowles and Gintis ought to find its way onto the reading lists of every university department of social science. But it probably won't for two reasons – one bad, and one understandable.

The bad reason is the seemingly ineradicable conviction among people who ought by now to know better that any application of Darwinian evolutionary theory to human behaviour implies a surrender to either genetic determinism or the cultural hegemony of capitalism (or both). But Bowles and Gintis are as far from being sociobiological reductionists who think we are the slaves of our genes as from being free marketers who think that all will be well provided it is left to the workings of the invisible hand. The misuses to which Darwinian theory has been put, and occasionally still is put, are not a reason for refusing to accept, or choosing to ignore, findings which have not been, and are highly unlikely to be, disconfirmed

however many preconceptions they upset. The fundamental process of variation and selection doesn't cease to operate when phenotypic behaviour is the acting-out of instructions transmitted culturally rather than genetically. Nor did Darwin suppose that it did, any more than Bowles and Gintis do. The question isn't whether natural and cultural selection are processes different from, while continuous with, one another, but how the two interact and to what effect. Human beings are as susceptible as they are to cultural influences only because natural selection has made them so. That doesn't make it impossible to change the innate psychological mechanisms which differentiate us from other species. But only genetic engineering or brain surgery can do it.

The understandable reason is that Bowles and Gintis have very little to say about what has happened during the ten or more millennia since our ancestors ceased to live in hunting and foraging bands and formed the large, permanently sedentary, agriculturally and in due course industrially productive and increasingly urbanised communities within which there evolved the armies, markets, churches, banks, law courts, schools, bureaucracies, parliaments and other formal institutions which are the staples of the sociological agenda. The one occasion where they talk of 'borrowing a page from sociological theory' turns out to be no more than a reminder of the truism that social norms depend on being identified and learned as such by the members of the groups whose norms they are. Durkheim is on their list of references, but not Marx or Weber. There is no discussion of class conflict, slavery, caste, dictatorship, kleptocracy or imperialism. The European nation-state is cited in passing as a 'successful institution' which produces 'many replicas', which will raise more than one eyebrow among historical and comparative sociologists.

The past ten thousand years of human history have seen something different from the co-evolutionary processes of natural and cultural selection that led up to them. Increasingly large societies of unrelated individuals who are entirely unknown to one another are now held together not only by innate predispositions to co-operation, channelled by imitation and learning into different cultural forms, but also by social institutions that give small numbers of individuals power to control the behaviour of thousands and even millions of others by force. That power may be resisted, and the groups that resist it most successfully may be those whose members exemplify a willingness to subordinate their individual interests to those of their group and even risk their lives on its behalf. But now the problem of order is being solved not by the motives and behaviours on which Bowles and Gintis place their emphasis but by the exercise by rulers of coercive sanctions of a kind that no member of a hunting and foraging band could even conceive of, let alone implement. Some rulers may themselves be altruists. But the historical record is full of others who are not and who, as the cynics never fail to point out, are at least as successful in holding their societies together as any who are.

The difference is not that our hunting and foraging ancestors were nicer than we are. No doubt some were nicer than others, then as now. But that's not the point. The difference is that until a few thousand years ago, not even the most brutal, single-minded and unscrupulous self-seekers could exploit the more vulnerable members of their groups without provoking effective counter-coalitions. But the time came when they could and did. The competition between altruistic and selfish strategies went on as before, but in an environment which made it a game of a new and wholly unprecedented kind. Inter-group hostility continued to reinforce intra-group altruism. But the self-seekers could now dominate their fellows by force, or the threat of force, provided that they could appropriate the resources with which to reward their chosen friends, punish their chosen enemies, and organise and direct for their own self-regarding purposes the labour of fellow members of their society with whom they stood in the novel relationship of rulers to ruled. Strong reciprocity becomes a different thing when it involves informing against neighbours who are suspected by the police of reluctance to inform against those of their fellow citizens whom the rulers are persecuting as enemies of the state.

Having passed as lightly as they do over all that, Bowles and Gintis take a modestly sanguine view of the future of human co-operation. Disarmingly, they admit to having at first recoiled at the 'unpleasant and surprising' conclusion that war contributed to the spread of human altruism. But that doesn't persuade them to fall in line with the cynics. Instead, they point to the 'tolerant' altruism, as they call it, which leads people in richer countries to support such causes as tax-funded aid to the people of poorer nations, and question whether the 'parochial' altruism which is so effective in holding human groups together has always to depend on the presence of enemies to go to war with. They don't, however, produce the evidence with which to persuade the cynics that it doesn't. Their concluding assertion that 'social preferences such as a concern for the well-being of others and for fair procedures remain essential to sustaining society and enhancing the quality of life' is one that nobody is likely to challenge. But it needs to pass Hamilton's test. It's not enough for Bowles and Gintis to claim that the state of the world they would like to see is a possible one. They have to show how it could come about and sustain itself; and that requires an argument no less complex, wide-ranging and well supported than their argument for how altruism came into the behaviour patterns of the human species in the first place.

It will, however, be a pity if prospective readers are put off the book because they will not find such an argument in it. (Neither, incidentally, should prospective readers who turn and run at the sight of an equation be put off: you don't have to be able to do the maths yourself in order to follow the logic of the conclusions drawn from it.) However the problem of order is (or isn't) addressed by the human societies of the next ten thousand years, the story that Bowles and Gintis tell makes it hard for the cynics to claim that its initial resolution had nothing whatever to do with authentically disinterested altruism. □