

---

## Words

# Sociobiology

Mary Midgley *Department of Philosophy, University of Newcastle*

---

This is a topic beset with quarrels, a bone of contention between political right and left, and at the same time an interesting and fairly important piece of science. Those of us who, somewhat desperately, try to keep up with current developments feel at times like throwing in our hands when confronted with such a tangle. Have we got to take sides on vast political issues before we can have any idea what to think about sociobiology? I believe not, but it really is necessary to get some idea of both aspects of the squabble if we want to grasp the issue, simply in order to allow for bias. I shall try to lay them out extremely crudely here, for the sake of people who find it worthwhile to put the whole row in context. Briefly, I see one big thing right about sociobiology – its attempt to bridge the gap between the biological and the social sciences – and several smaller, but still grave, things wrong – its brash and brutal style, its academic imperialism, and its half-conscious entanglement with free-enterprise economics. These flaws are quite bad enough to account for the alarm it has caused, not just on the left, but among social scientists in general.

First, what is sociobiology? Its mild and minimal definition is ‘the systematic study of the biological basis of all social behaviour’ (1). This may not sound alarming, but when it is applied to *Homo sapiens*, it does alarm those who hold that human behaviour has no biological basis at all (2). Sociobiology, however, is really something narrower than this, a study of the conditions under which social tendencies can be passed on in the process of natural selection. It arose from an insight of J B S Haldane’s about how tendencies to altruistic behaviour could be inherited. If the Social Darwinist idea of natural selection as sheer, brute, cut-throat, individual competition had been right, this would be impossible. Biologists knew this, but could not quite see what happened instead. Haldane saw that, even if self-sacrifice for others kills the first individual who shows it, so long as enough descendants sharing the tendency survive, genes for it survive and can possibly spread to the whole community. This is kin-selection. The question is simply; how many

descendants is enough? The story goes that Haldane, having grasped this in a pub, seized an old envelope and became immersed in calculations, emerging finally to declare ‘I am willing to die for four uncles or eight cousins’, that being the number needed to replace his own genes in the gene-pool. This sort of calculation has been the central business of sociobiologists ever since, and, as Wilson puts it ‘the central theoretical problem’ of the discipline is still, ‘how can altruism, which by definition reduces personal fitness, possibly evolve by natural selection?’ The calculations are now very sophisticated; they often give surprising and interesting results. Even in this initial story, however, we see a confusion arising which has made trouble ever since. Haldane spoke as if the result of his calculations could determine whether he would – or perhaps even should? – die for his relatives. Of course, all such strong, direct interpretations are wild and illicit. It is only possible to claim, very generally and statistically, that traits which are transmitted with some cost to their owner must on average have benefited close kin in rough proportion to their closeness. The defence of children does not stand alone. It is merely the strongest and simplest case.

This insight does make it much easier to grasp how human social faculties could arise. The notion that animal life was a hideous asocial jungle had made this hard. It had played a significant part in inclining social scientists to turn their backs on the possibility that innate causes might influence human behaviour, and to rule, with Durkheim, that its causes could only lie in other behaviour. The theory of evolution, crudely interpreted, had seemed to reinforce the jungle notion. Herbert Spencer, elaborating that crude interpretation to suit his extreme libertarian views, had produced that very unDarwinian thing ‘Social Darwinism’ – the idea that competition between individuals was the central law of life and must never be interfered with. Greater attention to the complexities of social life among animals, especially among those closely related to us, dispels this nightmare and makes it unnecessary to deny, or to veil, our complex emotional inheritance. That attention was paid by ethologists, and the message that inherited tendencies need not be brutal was clearly spelt out by Konrad Lorenz and Niko Tinbergen. The ingrained distrust of the innate among

---

### Key words

Sociobiology; innate characteristics; social sciences; Social Darwinism; evolution.

social scientists, however, did not readily yield. What the sociobiologists have supplied is a carefully calculated argument to show how, once a species is social at all, increasing co-operation can show a steady genetic advantage, and is therefore to be widely expected. Psychological egoism – the view that nobody can deliberately act except for his or her own private profit – which is often defended in everyday life, and sometimes assumed by political and economic theorists, does not make evolutionary sense. Animals, which cannot calculate, are quite often altruistic, and it is genetically to be expected that they should be. Sociobiology shows this. It should therefore remove a serious moral obstacle to the recognition of innate causes by social scientists – something which a mass of evidence requires, and which is only avoided by an increasingly painful set of epicycles.

The impression remains, however, that sociobiology must not be accepted because it is racist and promotes war. This is, of course, partly just a result of earlier excesses by theorists, from Galton on, who have invoked assumed inherited causes to attack the standing, not only of non-European races, but also of other groups who were thought politically threatening, such as women, the lower classes, and (in America) immigrants from the less respected parts of Europe, and also to excuse bellicosity (3). A great many of these theories have crumbled, disgraced under later scrutiny, but it is not surprising that suspicion still remains, especially when the style and language of the sociobiologists does much to recall it. As far as their deliberate, official thinking goes, however, the imputations seem to be quite unfair. As David Barash says 'If anything, sociobiology is an antidote to racism, since it emphasises those universals that underlie racial and cultural differences. In so doing, it shows the biological oneness of the human species' (4). And though they do sometimes interest themselves in the small genetic differences which exist between human groups, sociobiologists have no truck with the idea that one race is in any way better than another, which is the core of racism. As for war, the misunderstanding here is the familiar one about what aggression is. Like ethologists, sociobiologists use this term widely for a range of tendencies in individuals to attack each other at times, often very mildly. Political theorists, by contrast, use it for full-scale, unprovoked war. In the wider sense, our species is unquestionably one with a good deal of innate aggression, which however, as much as other motives, such as curiosity or parental love or a delight in ritual, is always channelled, shaped and controlled by culture. There is no more need for innate aggression to produce war than for innate curiosity to produce science (5).

Is there then any reason, apart from sheer force of habit, why sociobiologists should be suspected of sinister political attitudes? One relatively superficial one has been their academic imperialism – the somewhat wild offers made by Wilson and others to take over the social sciences (6). Physical science is

sometimes seen as an opponent or competitor of all other intellectual disciplines and this opposition often tends to be lined up with the right-left axis in politics. The fact that in this unreal drama sociobiology, as part of the physical sciences, has been positioned on the right is what has constituted part of the perceived political threat. It seems rather to be a straightforward intellectual error, a mistake of the kind which often does afflict new disciplines, producing wild over-estimation of their capacities and forgetfulness of the need for other methods. As such, it will probably correct itself with time.

What is much more serious is the misleading terminology. When writing, sociobiologists systematically use the names of familiar motives, such as *selfish*, with an extraordinary technical meaning, but are not able to stop themselves contaminating their technical remarks with beliefs called up by the ordinary sense of the words. Officially, for them 'selfish' behaviour is simply that which actually promotes the spread of the agent's own genes in the long run, while 'altruistic' behaviour is that which promotes the spread of another's at the expense of his or her own. 'Spiteful' behaviour is that which, in fact, damages another's prospects without helping one's own. These words are not supposed to refer to motives at all. But so strong is the everyday sense that writers find it impossible to resist concluding that their calculations have proved that ordinary selfishness, without quotes, is an omnipotent motive, since it appears (by definition) to be at the root of all successful evolutionary strategies. Thus Ghiselin, in a notorious passage:

'The economy of nature is competitive from beginning to end. . . No hint of genuine charity ameliorates our vision of society, once sentimentalism has been laid aside. . . The impulses that lead one animal to sacrifice himself for another turn out to have their ultimate rationale in gaining advantage over a third. . . Where he has no alternative, he submits to the yoke of communal servitude. Yet given a full chance to act in his own interest, nothing but expediency will restrain him from brutalising, from maiming, from murdering – his brother, his mate, his parent or his child. Scratch an "altruist", and watch a "hypocrite" bleed' (7).

This is the ancient rhetoric of psychological egoism found for instance in Hobbes and in Social Darwinism. It is not available to sociobiologists, since officially they are not investigating motives at all, and their terms are not supposed to refer to them. The 'advantages' which they point to as explaining behaviour are no advantages for the behavior himself at all; they are only prospects for his remote posterity, and ones of which he cannot possibly be aware. They are aspects of the long-term evolutionary function of a behaviour, not of its motive. In no way can this gratuitously reductive story about motives be supported by sociobiological argument. Indeed, as we have seen, that argument

J Med Ethics first published as 10.1136/jme.1984.03.158 on 1 September 1984. Downloaded from <http://me.bmj.com/> on March 25, 2023 by guest. Protected by copyright.

destroys what plausibility this egoist approach ever had. Egoism owes its persuasiveness to its occasional usefulness in exploding humbug, in pointing out hypocrisy. But hypocrisy could never occur if selfishness were really universal; it would have nothing to imitate. Naturally we expect that people will pay attention to their own survival and advantage. But we also know and take for granted that they are moved by a great number of other motives – often ones which do not involve any long-term calculation at all. If they were true egoists, they would scarcely be as rash as they are. We use words like *selfish* to describe people or acts which are *exceptionally* narrow, mean and calculating. And it is only when we uncover these, tearing off the veil of hypocrisy, that we have a right to the tone of triumphant penetration which Ghiselin here assumes towards the whole plant and animal kingdom. Merely changing the definition of one's terms is far too easy a way of reaching this level of self-congratulation.

When attacked for this strange reasoning, sociobiologists always claim to be misunderstood. Their odd uses of words are, they say, merely metaphors, ordinary words given special senses which are clearly defined and used to avoid the alternative of coining heavy technical ones (8). This cannot be the whole truth, because the ordinary usage continually crops up alongside the technical one to distort the argument. Further analysis of this occurs in Breuer, Trigg and Midgley (9). Even if they had managed to avoid this, however, one might still well ask why they chose words which were so likely to mislead the reader. Why not something like *gene-promoting* or *gene-preserving* instead of *selfish*? I think the only plausible answer is the obvious one – that they are unthinking Social Darwinists, to whom the egoist thesis seems highly persuasive in any case. Most of them, in fact, clearly operate inside the American tradition of extreme individualism, first planted in the eighteenth century by Enlightenment social-contract theory, fostered strongly by the conditions of immigration, and brought to full flower by Herbert Spencer, who sold more books in the USA in his day than any other philosopher whatever. Dawkins (10), a rather exceptional figure on this side of the Atlantic, seems to be an independent scion of this tradition. But since he transfers the selfishness from organisms themselves to their genes, he presents a rather different picture, one from which a depressed cosmic fatalism would perhaps

be a more reasonable deduction than monetarism. John Maynard Smith, the only other prominent British contributor to the study of sociobiology, carefully avoids the tuppence-coloured approach and observes the definitions of his terms rigorously (11). Until the terms themselves can be changed, it would be a very good thing if everybody else discussing the matter could imitate him.

## References

- (1) Wilson E O. *Sociobiology; the new synthesis*. Cambridge, Mass: Harvard, 1975: 4.
- (2) Sahlins M. *The use and abuse of biology; an anthropological critique of sociobiology*. London: Tavistock Publications, 1977. Caplan A L, ed. *The sociobiology debate*. New York: Harper and Row, 1978.
- (3) Montagu A, ed. *Sociobiology examined*. Oxford and New York: Oxford University Press, 1980.
- (4) Gould S J. *The mismeasure of man*. New York and London: Norton, 1981.
- (5) Barash D. *Sociobiology; the whisperings within*. London: Souvenir Press, 1980: 232.
- (6) Midgley M. *Beast and man; the roots of human nature*. Brighton: Harvester Press, 1978: 47–81.
- (7) See reference (1): 4, 6.
- (8) Ghiselin M T. *The economy of nature and the evolution of sex*. Berkeley: California University Press, 1974: 247.
- (9) Dawkins R. In defence of selfish genes. *Philosophy* 1981; 56: 218: 556–572, replying to: Midgley M. Gene-juggling. *Philosophy* 1979; 54: 210: 439–458 which is reprinted in Montagu A, ed. *Sociobiology examined*. Oxford and New York: Oxford University Press, 1980. Rejoinder: Midgley M. Selfish genes and Social Darwinism. *Philosophy* 1983; 58: 225: 365–377.
- (10) Breuer G. *Sociobiology and the human dimension*. Cambridge: Cambridge University Press, 1983. Trigg R. *The shaping of man; philosophical aspects of sociobiology*. Oxford: Blackwell, 1982. Midgley M. Gene-juggling. *Philosophy* 1979; 54: 210: 439–458.
- (11) Dawkins R. *The selfish gene*. Oxford: Oxford University Press, 1976.
- (12) Maynard Smith J. Group selection and kin selection. *Nature* 1964; 201: 1145–1147; Survival through suicide. *New Scientist* 1975; 67: 496–497 (review of Wilson E O. *Sociobiology: the new synthesis*); The concepts of sociobiology. In: Stent G S, ed. *Morality as a biological phenomenon*. Berlin: Dahlem/Abakon, 1978; The evolution of behaviour. *Scientific American* 1978; 239, Sept: 136–145.