

MISUNDERSTANDING RICHARD DAWKINS Jeremy Stangroom

Many people are upset by Richard Dawkins. Mary Midgley, in particular, has argued that Dawkins' 'crude, cheap, blurred genetics [...] is the kingpin of his crude, cheap, blurred psychology.' Dawkins is often also suspected of having sinister political motives, and of morally condoning selfish behaviour. Here, Jeremy Stangroom explains how he believes Midgley and others have systematically misunderstood Dawkins.

Introduction

Richard Dawkins's *The Selfish Gene* (Oxford University Press, 1989) is the kind of book that changes the way that people look at the world. Its importance is that it articulates a gene's-eye view of evolution. According to this view, all organisms, including human beings, are 'survival machines' which have been 'blindly programmed' to preserve their genes (see *The Selfish Gene*, p. v). Of course, extant survival machines take a myriad of different forms – for example, it is estimated that there are some three million different species of insect alone – but they all have in common that they have been built according to the instructions of successful genes; that is, genes whose replicas in previous generations managed to get themselves copied.

At the level of genes, things are competitive. Genes that contribute to making good bodies – bodies that stay alive and reproduce – come to dominate a gene pool (the whole set of genes in a breeding population). So, for example, if a gene emerges which has the effect of improving the camouflage of stick-insects, it will in time likely achieve a preponderance over alternative genes (alleles) which produce less effective camouflage. There are no such things as long-lived, altruistic genes. If a gene has the effect of increasing the welfare of its alleles to its own detriment, it will in the end perish. In this sense, then, all long-lived genes are 'selfish',

concerned only with their own survival – and the world is necessarily full of genes which have successfully looked after their own interests.

There are good reasons for seeing evolution as operating at the level of genes. Alternative theories are either unworkable (group selectionism) or not as successful (individual selectionism). However, despite the fact that the central message of *The Selfish Gene* has (arguably) become scientific orthodoxy, the book, and the ideas associated with it, have gained something of a reputation for extremism. In part, this is because they have been subject to sustained criticism by a number of high profile, often media friendly, people working in the sciences and humanities. On the science side of things, critics have included Steven Rose, Richard Lewontin and Stephen Jay Gould. On the humanities side, there have been, amongst others, David Stove, Hilary Rose and, perhaps most notoriously, Mary Midgley.

Midgley's 'gene-juggling'

Mary Midgley first turned her attention to Richard Dawkins's ideas in her 1979 article 'Gene Juggling', published in the journal *Philosophy*. On the first page of the article, she had this to say about Dawkins and *The Selfish Gene*:

His central point is that the emotional nature of man is exclusively self-interested, and he argues this by claiming that all emotional nature is so. Since the emotional nature of animals clearly is not exclusively self-interested, nor based on any long-term calculation at all, he resorts to arguing from speculations about the emotional nature of genes, which he treats as the source and archetype of all emotional nature. ('Gene Juggling', pp. 439-440)

Unfortunately, as Andrew Brown – who, incidentally, is usually sympathetic to Midgley – points out in his book, *Darwin Wars* (Touchstone, 2000), this is just about as wrong

as it is possible to get about selfish gene theory. It is wrong on a number of counts.

First, Dawkins makes it absolutely clear in *The Selfish Gene* that he is not using the word 'selfishness' – or its opposite 'altruism' – to refer to the psychological states, emotional or otherwise, of any entity. Rather, as he pointed out in his reply to Midgley ('In Defence of Selfish Genes'), he gives the word an explicitly behaviouristic definition:

An entity [...] is said to be altruistic if it behaves in such a way as to increase another such entity's welfare at the expense of its own. Selfish behaviour has exactly the opposite effect. 'Welfare' is defined as 'chances of survival' [...] It is important to realise that the [...] definitions of altruism and selfishness are *behavioural*, not subjective. I am not concerned here with the psychology of motives. (*The Selfish Gene*, p. 4)

There are no grounds, then, for supposing, as Midgley did, that the central message of *The Selfish Gene* has anything to do with the emotional natures of man, animals or genes.

Second, the very idea that Dawkins might think that genes have an emotional nature is so bizarre that it is hard to know what to make of it. One would be tempted to conclude that Midgley didn't really mean it, except that she started her article in a similar fashion:

Genes cannot be selfish or unselfish, any more than atoms can be jealous, elephants abstract or biscuits teleological. This should not need mentioning, but ... *The Selfish Gene* has succeeded in confusing a number of people about it ... ('Gene Juggling', p. 439)

Whatever she meant, two things are clear: (a) no reputable biologist thinks that genes have an emotional nature; and (b) genes *can* be selfish in the sense that Dawkins –

and other sociobiologists – use the term.

Third, Midgley was confused about levels of analysis. It isn't possible to make straightforward claims about the behaviour of organisms from the fact that their genes are selfish. There is no *a priori* requirement for individual organisms to be selfish in the service of their genes. Indeed, one of the central messages of *The Selfish Gene* is precisely that it is possible to explain the *altruistic* behaviour of individual animals in terms of selfish gene theory.

These kinds of mistakes are typical of Midgley's article as a whole. Dawkins, in his response, claimed that the article had 'no good point to make' and argued that the details of her criticisms were incorrect because they were based on a misunderstanding and misapplication of a technical language. This conclusion is echoed by Andrew Brown, who states: 'It has to be said that by the end of Dawkins's piece ... any impartial reader will see that she misunderstood him.' (*Darwin Wars*, p. 92) Indeed, Midgley herself has conceded that she should have expressed her objections to *The Selfish Gene* 'more clearly and temperately' ('Selfish Genes and Social Darwinism', p. 365).

What's going on?

It is possible to tell a very complicated story in order to explain how it is that Dawkins's ideas, and those of other sociobiologists, provoke the kinds of extreme reaction and misunderstanding characterised by Midgley's 'Gene Juggling'. At its most convoluted, this tale would include episodes dealing with scientism, biological determinism, reductionism, metaphor, motives, moral theory, modes of explanation, levels of selection, and more. Happily, though, there is an alternative story to tell, less comprehensive, but with the advantage of clarity. It also gets to the heart of an important aspect of the worries that people have about sociobiological ideas. It is a story about moral and political commitments.

The proper starting point of this story is the constellation of ideas associated with what has become known as social

Darwinism.¹ The most general claim of the social Darwinists was that it is possible to make use of Darwinian concepts in order to understand society and the relationships that people have with each other. Specifically, they argued that societies progress because people aggressively pursue their own self-interest in competition with other people doing the same thing. They are competing primarily for economic success, and the ‘fittest’ – those people most adapted to the demands of competition – deservedly rise to the top. If a person is not successful, it indicates a lack of ‘fitness’, and, by extension, that they are not deserving of the rewards that fitness brings.

The nineteenth century social theorist Herbert Spencer is probably the best known exponent of social Darwinist ideas. In his view, social Darwinism translated naturally into a celebration of the individualistic, competitive ethos of *laissez-faire* capitalism. Spencer thought it quite natural that there were economic winners and losers under capitalism. He opposed social reform and government intervention to help those disadvantaged by the system, on the grounds that there should be no interference in what was a natural mechanism for sorting out the fit from the unfit. Not surprisingly, Spencer’s ideas were enthusiastically adopted by many capitalists at the end of the nineteenth century, particularly in the United States, as a means to justify their wealth and resist the call for social reform.

This kind of crude social Darwinism was relatively short-lived. Indeed, even by the first decade of the twentieth century, Spencer’s ideas were beginning to fall into disrepute. Nevertheless, social Darwinism remains a factor in the way in which people think about sociobiological ideas. Perhaps the major reason for this lasting impact is that the history of social Darwinism is tarnished by its association with some of the more shameful episodes of the twentieth century. Not only, as we have seen, was it used to legitimate the painful consequences of untrammelled capitalism, it was also, for example: (a) implicated in the emergence of eugenics movements at the beginning of the century, something which led

directly to compulsory sterilisation programmes in the United States and indirectly to Nazi concentration camps; (b) integral to 'scientific racism', which sought to ground racial discrimination in notions of biological superiority and inferiority; and (c) a contributor to an atmosphere of 'war apologetics' that was prevalent in Europe in the period leading up to the 1914-1918 war.

However, it is important to note that people tend now not to talk specifically about social Darwinism in relation to sociobiology. Rather, its impact is felt through people's concern with a constellation of ideas which are linked by the fact that they are *presupposed* by social Darwinism. Of these, perhaps the most significant are: (a) the notion that the behaviour of human beings is solely determined by their biology (what is now called biological or genetic determinism); and (b) the idea that it is possible to invoke biology in order to *justify* particular social or political arrangements (as, for example, extreme right-wing political parties will, in order to justify their racist agendas).

Dawkins and social Darwinism

Is it the case, then, that Richard Dawkins's ideas in *The Selfish Gene* amount to a kind of social Darwinism? The answer to this question is a simple no. There is nothing in Richard Dawkins's work which remotely adds up to social Darwinism. There are three main reasons why this conclusion is easy to draw.

First, Dawkins says clearly that he is not, unlike the social Darwinists, advocating any particular way of living. He puts it this way in *The Selfish Gene*:

I am not advocating a morality based on evolution. I am saying how things have evolved. I am not saying how we humans morally ought to behave. ... My own feeling is that a human society based simply on the gene's law of universal ruthless selfishness would be a very nasty society in which to live. (*The Selfish Gene*, p. 2-3)

What Dawkins is doing here is flagging up the 'is/ought gap'; that is, the fact that it is not possible to derive moral statements about how things ought to be from statements about how things stand in the world. For example, if it turns out that we are genetically disposed towards murder, it does not follow that we should, therefore, go around murdering people. Biological facts do not entail moral facts – a point, incidentally, which is ruinous for social Darwinism.

Second, Dawkins explicitly disavows irrevocable 'genetic determinism'. Indeed, he has called it 'pernicious rubbish on an almost astrological scale' (*The Extended Phenotype*, Oxford University Press, 1982, p. 13). Genes affect behaviour. If you want to do Darwinian theorising, then you've got to look at the effects of genes. But there are no grounds for thinking that these effects are any more inexorable than the effects of the environment. Inevitability is not part of the equation. This is how Dawkins puts it in *The Extended Phenotype*:

Genetic causes and environmental causes are in principle no different from each other. Some influences of both types may be hard to reverse; others may be easy to reverse. Some may be usually hard to reverse but easy if the right agent is applied. The important point is that there is no general reason for expecting genetic influences to be any more irrevocable than environmental ones. (*The Extended Phenotype*, p. 13)

Third, Dawkins's work is rarely specifically about human beings. Rather, he is dealing with general questions to do with evolutionary theory, many of which are only marginally relevant for understanding human behaviour. Moreover, he is on record as saying that he has little interest in human ethics and does not know a great deal about human psychology ('In Defence of Selfish Genes', p. 558). Of course, the argument here is *not* that Dawkins's work never has implications for understanding human behaviour. Rather, it is that

where it does, it is not usually because human beings are specifically his subject, but because humans are evolved animals, and *evolution* is his subject.

Politics, morals and biology

If the ideas of Richard Dawkins cannot be construed as a kind of social Darwinism, what has social Darwinism got to do with the extreme reactions and misunderstanding that his work provokes? The answer is that it is the *measure* against which many people assess the merits of those biological theories they judge to have implications for the understanding of human behaviour.² To appreciate the significance of this point, it is important to recall that social Darwinism remains a factor in people's thinking because of its association with the horrors of things like racism, war and eugenics. Consequently, for many of those people whose political and moral inclinations are structured by notions of equality and common humanity, social Darwinism is a wickedness to be sought out and then vigorously contested wherever it might be found.

The consequence of this injunction to combat social Darwinism has been the emergence of a mindset amongst certain sectors of the educated public which undermines the proper examination of sociobiological arguments. It is a mindset which subjugates science to political and moral commitments. It results in sociobiological texts being read from a default position of suspicion. Any perception that the arguments they contain might conceivably be co-opted for the purposes of articulating a social Darwinist agenda – however this is construed – is likely to be taken as confirmation that this is where the sympathies of the author lie. And the *scientific* merit of sociobiological arguments is assessed in terms of the extent to which they fit with a political and moral agenda governed by notions of equality and common humanity.

It is easy to point to instances where this mindset prevails. For example, it is involved:

- (a) In Mary Midgley's confusion about selfish genes and selfish individuals; in her accusation that Dawkins's 'crude, cheap, blurred genetics [...] is the kingpin of his crude, cheap, blurred psychology' ('Gene-Juggling', p. 449); and her statement that her main aim is 'to show people that they can use Darwin's methods on human behaviour without being committed to a shoddy psychology and a bogus political morality.' ('Selfish Genes and Social Darwinism', p. 369)
- (b) In Steven Rose, Leon Kamin and Richard Lewontin's claim that 'Science is the ultimate legitimator of bourgeois ideology.' (*Not In Our Genes*, Penguin, 1990, p. 31); and their argument that 'universities serve as creators, propagators and legitimators of the ideology of biological determinism. If biological determinism is a weapon in the struggle between classes, then the universities are weapons factories, and their teaching and research faculties are the engineers, designers, and the production workers.' (*Not In Our Genes*, p. 30)
- (c) In Hilary Rose's claims, in *Red Pepper*, that fundamental Darwinists, 'with their talk of biological universals on matters of social difference are a political and cultural menace to feminists and others who care for justice and freedom'; that they are 'obsessed by the desire to reduce organisms (including humans) to one determining entity – the gene'; and that sociobiology 'has a history which varies from the dodgy to the disgusting on sexual difference.' (*Red Pepper*, Sept 1997, p. 23)
- (d) In the furious reaction that greeted the publication of Edward O. Wilson's 1975 book, *Sociobiology: The New Synthesis*, which saw:

the American Anthropological Association debating a motion to censure sociobiology; a group of Boston scientists – including Stephen Jay Gould and Richard Lewontin – forming ‘The Sociobiology Study Group’, and noting in *The New York Review of Books* that theories that attempted to establish a biological foundation to social behaviour provided an ‘important basis [...] for the eugenic policies which led to the establishment of Gas chambers in Nazi Germany’; and Wilson himself being drenched with water by protestors at a meeting of the American Association for the Advancement of Science in early 1978.

Conclusion

Richard Dawkins’s ideas, and those of other sociobiologists, then, provoke extreme reactions and misunderstanding because their critics believe them to be in conflict with the moral and political commitments that they hold. This fact stands independently of any considerations about the merit of the kind of science that Dawkins, and his colleagues, are doing. Of course, it is not unusual for ideology to affect the judgements that people make about scientific theories, and where these theories have implications for understanding human beings it is especially commonplace. But what it has meant in the case of sociobiology is that the *public space* for the debate about evolutionary ideas has become polluted by the hyperbole that almost inevitably occurs when the politically engaged feel their baseline commitments to be under threat.

However, for those people who prefer their science to be driven by a desire to uncover the fundamental nature of things, and not by a desire to find spurious support for political and moral values, there is still some hope. For, according to Edward O. Wilson, the controversy surrounding sociobiology is essentially over. ‘The contrarians are ageing,’ he told Ed

Douglas, in a recent *Guardian* interview. 'No young scientists are joining. They are not handing on the torch but passing it around a smaller and smaller circle.' If Wilson is right, perhaps there is hope for a future where articles like Mary Midgley's 'Gene Juggling' are not published in reputable journals.

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Notes

1. Social Darwinism is something of a contested concept. Consequently, there will be those who disagree with the way in which I use the term in this article. There is also disagreement about the history of social Darwinism. For an alternative treatment of this phenomenon, see Robert Bannister's *Social Darwinism: Science and Myth in Anglo-American Social Thought* (Philadelphia: Temple University Press, 1979).

2. Mary Midgley makes the same point in her article 'Selfish Genes and Social Darwinism' (pp. 366-367).

References

R. Dawkins, 'In Defence of Selfish Genes', *Philosophy*, vol. 56, no. 218 (1981), pp. 556-573.

M. Midgley, 'Gene Juggling', *Philosophy*, vol. 54, no. 210 (1979), pp. 439-458.

M. Midgley, 'Social Genes and Social Darwinism', *Philosophy*, vol. 58, no. 225, pp. 365-377.