

A scientist looks at Richard Dawkins' latest book

***The God Delusion* by Richard Dawkins
London: Bantam, 2006.**

(reviewed by Henry Haslam)

In *The God Delusion*, Richard Dawkins sets out to make the case for atheism. He concedes that it is not possible to prove with absolute certainty that there is no God, but he wants to convince his readers that the probability of God is very low indeed. It is not only religion that is under attack: Dawkins makes it clear on page 2 of the book that he hopes to convince agnostics that theirs is not a reasonable position to hold.

His particular interest is in evolutionary biology, and he often returns to the argument that, since natural evolutionary processes can account for why living organisms are as they are, there is no need for God. This argument fails to take account of other phenomena that we are aware of, like those that Anthony O'Hear¹ calls 'intimations of a level of reality beyond the narrowly material or the purely biological', or what Tom Wright² calls 'echoes of a voice', observations and experiences that point beyond themselves. I suppose it is to be expected that Dawkins should choose the soft targets to attack – he feels on safe ground when he writes about bad things that have been said and done by religious people – but his failure to address the more challenging issues does nothing to strengthen his case.

Chapter 3 of the book is devoted to a discussion of 'Arguments for God's existence', and, of course, Dawkins makes the case for God seem rather weak. More revealing is Chapter 4, 'Why there almost certainly is no God'. If the previous chapter is an attack on religious faith, this one is meant to be an attack on agnosticism. Dawkins summarises the chapter, which he describes as the central argument of book, on pages 157–158, and what do we find? Instead of a serious

¹ O'Hear, Anthony, 1997. *Beyond Evolution*. Oxford: Oxford University Press.

² Wright, Tom, 2006. *Simply Christian*. London: SPCK.

argument against the existence of God (if such an argument exists) there is simply a repeat of the argument that the complexity of the universe can be explained by natural processes, and therefore 'God almost certainly does not exist'. Many religious believers are quite content to agree with Dawkins about the existence of evolutionary processes, while regarding his conclusion as a *non sequitur*.

There are two issues that I intend to discuss in greater detail, biological evolution and morality.

Biological evolution

One of the things that surprises me about *The God Delusion* is the narrowness of Richard Dawkins' vision when dealing with biological evolution. This is his specialist subject, and it is a matter of science, with no theological implications. He writes as if he believes that natural selection provides the full explanation of why the genetic make-up of every organism is as it is, when in fact it can only provide a part of the explanation.

'Modification by descent' was Darwin's phrase to describe the process of evolution. Two questions arise here: 'How do modifications happen?' and 'How is it that some modifications are perpetuated and others are not?' Natural selection provides no answer to the first of these questions, and only a partial answer to the second. Richard Dawkins must know this as well as I do – no, much better than I do – which leaves me wondering why he gives the impression that he does not.

The first question is, 'How do modifications happen?' We are beginning to understand some of the processes by which changes in DNA occur, but the science of molecular genetics is still in its infancy. There is a great deal to learn. There is also a great deal to learn about how specific changes in DNA are expressed in specific changes in physical (or, in animals, mental) characteristics, but it is clear that the relationship is often of great complexity.

Dawkins follows Darwin in his insistence that all change in physical characteristics is gradual. It is difficult to understand this at our present level of knowledge. Present knowledge of genetics does not permit us to say with any confidence that a slight modification to DNA cannot give rise to a large modification in the body. The fossil record is full of apparently sudden changes, and in our own time we can see

that some genetically determined characteristics are either present or absent, with no intermediates. (Again, Dawkins knows much more about this than I do.)

The second question is, 'How is it that some modifications are perpetuated and others are not?' Natural selection is undoubtedly important, in that it ensures that no inheritable characteristic seriously injurious to survival is perpetuated, but there are numerous characteristics that are not particularly helpful or unhelpful for survival and breeding. Such characteristics are not favoured by natural selection, nor are they selected against: some other forces must be responsible for their origin and survival.

I repeat that this point has no theological implications. All it shows is that there is a great deal more to be discovered about how evolution works. Dawkins likes to say how he marvels at the grandeur of nature and the evolutionary process, but evolution may actually be far grander and more complex than he seems willing to acknowledge. If he has so restricted a view of his own specialist subject, perhaps it is not surprising that when he turns his attention to religion he fails to grasp the full splendour of the created world.

Charles Darwin, of course, was a powerful advocate for the importance of natural selection, so Richard Dawkins has good reason to claim that his point of view is truly Darwinian. However, Darwin also wrote, in the first (1859) and subsequent editions of *The Origin of Species*, 'I am convinced that natural selection has been the main but not the exclusive means of modification', and in the last (1872) edition he expressed the belief that he had formerly underrated the frequency and value of other 'variations that seem to us in our ignorance to arise spontaneously ... leading to permanent modifications of structure independently of natural selection' – so I can claim to be a true Darwinian too. Perhaps it is time we all stopped using terms like 'Darwinian evolution' and 'Darwinism'. Although Dawkins explains very clearly what he means by such terms, there are many other writers who use them without definition, and probably without working out for themselves just what they mean.

Although Richard Dawkins apparently holds views that are diametrically opposed to those of the young-earth creationists, there is one fundamental and important matter in which they are in

agreement: they both maintain that evolution means atheism. Neither of them accept Darwin's conclusion, when he writes in the last edition of *The Origin of Species*, 'I see no good reason why the views given in this volume should shock the religious feelings of anyone'.³ From Darwin's day to our own, countless believers have indeed found that there is nothing inconsistent about accepting evolutionary theory. Not so Dawkins and the creationists, alas, who together have succeeded in polarising the debate in the public mind, creating the impression that theirs are the only two world views on offer. By preaching that evolution means atheism, Dawkins is doing a profound disservice to the public understanding of science, just as creationists with the same message are doing a profound disservice to the public understanding of religion. The created world is far more exciting than either of the protagonists will allow.

Moral value and the moral sense

Perhaps the most serious weakness in Dawkins' attempt to establish a deity-free model of the universe is his avoidance of the question of moral value. By this, I don't mean good or bad behaviour (he discusses altruism at some length). Nor do I intend to engage in a debate about moral issues. What I am referring to is the fact that we deem such moral debates to be meaningful. We (and this includes Dawkins himself) recognise the existence of moral values and we consider them to be morally superior to the survive-and-breed values of natural selection. What is this 'moral value', as distinct from all other kinds of value?

Looking first at altruistic behaviour, there can be no doubt that natural selection favours parental behaviour that ensures that the young are cared for until they are able to look after themselves; an inheritable predisposition for neglecting the young would obviously not be perpetuated. However, this parental care has developed gradually (i.e. evolved) into caring for other young and vulnerable animals (there are plenty of instances of such behaviour in animals: foster parents looking after cuckoo chicks are an obvious example) and, further, into the caring concern that leads present-day humans to care about the well-being of all of our fellow humans and to have, in addition, a concern for animal welfare. This runs against the principle of natural

³ Darwin himself lost his faith, but here I agree with Dawkins (in *River out of Eden*) that the reasons for this were complex.

selection – a particularly good example of an evolutionary process that is contrary to natural selection but is not so injurious to survival and breeding that it is selected against.

Richard Dawkins doesn't favour this way of looking at it – an evolutionary process for which we so far have no explanation. Instead, he makes a great effort to place the evidence in the context of natural selection. This involves him in two different kinds of argument. First he argues in chapter 6 of *The God Delusion* and in the *The Selfish Gene*, published 30 years earlier,⁴ that some kinds of altruistic behaviour are favoured by natural selection: altruism towards individuals who are closely related to the altruist, for example, and altruistic behaviour that can be shown to be reasonably likely to be returned in some way (a concept known by the apparently self-contradictory term 'reciprocal altruism'). Secondly, he describes examples of altruistic behaviour that are obviously contrary to the principle of natural selection (like the cuckoo's foster parents) as a 'misfiring' of the Darwinian altruistic urge. (Mark Ridley⁵ describes this behaviour as 'not abnormal, it is just misdirected'.) Dawkins goes on to suggest that the human urge to kindness and generosity is also an example of 'misfiring'. All in all, this attempt to shoehorn altruism into a natural-selection frame seems rather contrived and unconvincing.

Altruistic behaviour, however, which is seen in humans and other animals, is not the same thing as that uniquely human attribute, the moral sense. Whatever explanation we may favour for altruism, this does nothing to explain the idea that some kinds of behaviour are morally 'better' than others. As long ago as 1895, T H Huxley noted the conceptual distinction between good behaviour and moral judgement: 'Cosmic evolution may teach us how the good and evil tendencies of man may have come about; but, in itself, it is incompetent to furnish any better reason why what we call good is preferable to what we call evil than we had before.'⁶

Richard Dawkins is a man of strong moral convictions. Much of his criticism of religion is based on moral argument. He is not a follower of

⁴ Dawkins, Richard, 1976. *The Selfish Gene*. Oxford: Oxford University Press.

⁵ Ridley, Mark, 1995. *Animal Behaviour*. Second edition. Blackwell Scientific Publications.

⁶ Huxley, T H, 1895. *Evolution & Ethics and other Essays*. Volume IX of *Collected Essays*. London: Macmillan.

A J Ayer, who saw no point in asking which of two conflicting moral statements is right because neither expresses a genuine proposition. Nor is he a moral relativist, for whom all moral statements are equally valid. He clearly believes that moral statements have meaning, that some moral teachings are superior to others, and that moral debates are about something that matters. He makes it plain in *The Selfish Gene* and *The God Delusion* that he recognises moral values that are outside natural selection, values that enable him to make moral judgements on the behaviour favoured by natural selection: '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', 'Be warned that if you wish, as I do, to build a society in which individuals cooperate generously and unselfishly towards a common good, you can expect little help from biological nature. Let us try to *teach* generosity and altruism, because we are born selfish' (*The Selfish Gene*); 'I must rush to add that "misfiring" [see above] is intended only in a strictly Darwinian sense. It carries no suggestion of the pejorative', 'Do not, for one moment, think of such Darwinizing as demeaning or reductive of the noble emotions of compassion and generosity' (*The God Delusion*).

Other species manage very well without a moral sense, following behaviour patterns that conform well enough to the survive-and-breed values of natural selection. Their behaviour includes plenty of kindness, altruism and cooperation. There is no reason to suppose that humans, or human-like creatures, could not also prosper without a moral sense. And yet... this sense that moral values are real and important is an essential part of the human personality. Where on earth does it come from, this idea – one of our deepest convictions – that words like 'goodness' mean something?

Marc Hauser⁷ has recently floated the idea of a 'universal moral grammar' built into the human personality, an idea that Richard Dawkins rather favours. There is not much evidence or argument to support the idea, however, and if we survey the wide diversity of moral sentiments that exist they don't look as if they derive from a common source within us (if that is what a universal moral grammar means). Rather, they have the appearance of coming from different origins but all striving to reach the same goal – that of expressing

⁷ Hauser, Marc D, 2006. *Moral Minds: How nature designed our universal sense of right and wrong*. New York: Ecco.

ultimate moral truth. We all have our own moral values, part of the uniqueness of each human personality, but you can only make sense of these values if you recognise the existence, beyond ourselves, of some kind of objective moral standards. Without them, all moral debate (including Dawkins' railing at the bad behaviour of religious people) would be as futile as the relativists would have us believe. In other words, our moral sentiments don't look as if they are diverging from a common origin. Rather, they seem to be trying to converge on something. What they have in common is not where they come from but what they are trying to achieve.

I am not concerned here to debate what is or is not good behaviour. The fundamental point of interest to the philosopher and the scientist is the extraordinary fact – a fact that most of us, including Dawkins, take for granted – that such debates take place and are considered to be meaningful. Why do we make moral judgements? Why do we think that goodness is a valid yardstick by which to measure something? There are two separate issues here. The first is about moral value itself, that dimension of reality that gives meaning to words like 'good', 'evil' and 'ought'. The second concerns the capacity of the human mind to recognise its existence: the moral sense (which may or may not have its seat in a 'moral organ', as postulated by Marc Hauser). The moral sense is an attribute of the human personality and may well be a product of biological evolution (though it is not favoured by natural selection), but the existence of moral value as a yardstick, as a way to assess behaviour and thinking, has every appearance of lying outside ourselves.

To believers it is obvious to attribute ultimate goodness to God, and this seems to be the simplest explanation. It may be possible to propose some rational explanation that is consistent with atheism, but Dawkins does not even attempt it. All we can find is a clue on page 14 of *The God Delusion*: an indication of how he might approach such a problem. We find here the statement 'If there is something that appears to lie beyond the natural world as it is now imperfectly understood, we hope eventually to understand it and embrace it within the natural.' In other words, if you see something that appears to be beyond the natural world, you assume that it is not what it appears to be. If the evidence conflicts with your world view, the evidence must be misleading. Dawkins evidently finds this attractive – but it is an expression of personal faith, not science. The scientific approach is to

study what appears to be, try to understand it, and remain open to the possibility that appearances might tell us something about reality.

And finally

After so much criticism, I would like to note that there are several peripheral issues on which I can agree with Richard Dawkins. Like him, I do not accept Gould's concept of NOMA (Non-Overlapping Magisteria). No territory is out of bounds for the scientific approach of assembling the evidence and seeking to interpret it – nor is anywhere out of bounds for the theologian. And it was a pleasure to find that Dawkins shares my enjoyment of Medawar's brilliant review of *The Phenomenon of Man*.⁸

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⁸ Medawar, Peter, 1967. *The Art of the Soluble*. London: Methuen.