

Published Review of

Michael Ruse, *Evolutionary Naturalism*, in: *Heythrop Journal*, 38, 4 (1997), pp. 473 - 475.

By Louis Caruana

***Evolutionary Naturalism*. By Michael Ruse. Pp. x, 316, London, Routledge, 1995, £35.00.**

Philosophers of knowledge and of moral behaviour should take into serious consideration the findings of contemporary evolutionary biology. Many would agree with this. Ruse makes a useful attempt to go further and say exactly how such scientific results could be incorporated.

The book consists of a collection of essays constituting three definite sections. The first deals with interesting case studies including the historical study of the mechanism of natural selection, a discussion on the thought of Sewall Wright concerning population genetics, and an assessment of the recent palaeontological theory of 'punctuated equilibria'. This part of the book is certainly useful to those readers interested in the history of evolutionary biology.

The second part concerns evolutionary epistemology. Two points stand out here. The first concerns the question whether evolution involves progress. Ruse accepts that evolution was the child of progress and that people, for many decades, were happy to acknowledge the relationship. But he insists that the time has come to sever the family ties. The idea of progress is, according to him, completely foreign to evolution because mutations are random. The second point concerns the apparent differences between culture and biology. For Ruse, humans have an exceedingly developed cultural dimension unseen elsewhere in the organic world. Cultural changes and variations are far too quick and drastic to be directly and completely explained by talking of biological forces of selection. However, this does not imply that biology is irrelevant. His point is that culture has biological constraints: 'culture is the flesh which adheres to the skeleton of biology' (p. 158). The human mind is informed by various capacities, constraints or dispositions, which come to us innately. We have these capacities because it has proven biologically advantageous for our ancestors to have them. Culture works within the constraints put on us by these dispositions.

Some readers will probably desire more clarity on this important point. If Ruse is making the modest claim that culture has biological constraints, many would have no problem. If however he wants to make the more ambitious claim, as is evident at places, that not only the constraints are biologically determined but also the very content of thought, then more careful argumentation is needed. If some biological constraints are fixed, it does not follow that what humans do within those constraints is also fixed. Being constrained by my vocal cords to produce sounds within a limited frequency-range does not totally constrain what combination of sounds I make within those limits. In this sense, it certainly does not constrain what I say. Similarly, being constrained by the long evolutionary process to think according

to the laws of logic does not constrain what thoughts I may have within the framework set by these laws. So even if we concede that Ruse is right in saying that there are evolution-dependent biological constraints on culture, we are still very far from the claim that all culture is biologically conditioned in all its details.

The third part of the book concerns evolutionary ethics. Ruse presents himself as a latter-day Humean. For him reason must be a slave to the passions. There is no possible way in which knowledge gleaned from an intellectual theory could change our thinking about right and wrong. Ruse apparently wants to argue in four steps. First: we believe the ethical statements we do because of our evolution and because of facts about our socialisation. Second: we could have evolved into beings who believe something completely different about ethics. Third: we cannot know that principles of objective ethics exist, nor whether ours are close to them or not. Forth: one must therefore forget the objective dimension completely, because it cannot in principle make any difference.

This controversial argument needs refinement at least on one important issue. Ruse's starting point is that according to evolutionary biology we could have evolved with ethical principles completely different from our own. We could have evolved into beings who consider hating one another as a good thing. But such conjectures suffer from the usual problems of possible-world analyses: when conjuring up possible worlds, one cannot change just one isolated parameter. How far away is Ruse's possible world from the actual one? If evolution had resulted in beings that value hating one another, what guarantees that these beings are not so different from us — even biologically — that they cannot be called human? Such a question does not show that Ruse's premise is necessary false, but only that deeper philosophical issues are unavoidable.

On reaching the end of the book, some readers will probably remain unclear about what kind of naturalism is being defended by Ruse. Many authors agree that naturalism is the position according to which empirical science has an important role to play in epistemology, or that epistemological questions can be investigated and resolved using the methods of the sciences. There is disagreement however as regards the *extent* to which science can resolve epistemological questions. Strong naturalism maintains that *all* legitimate epistemological questions are scientific questions, and thus that epistemology can be reduced to science. Weak naturalism claims that *some* epistemological questions can be resolved by science. Hence in the weak version, there are some legitimate epistemological questions that are *not* scientific questions and cannot be resolved by scientific research. In the introduction, Ruse explains that his naturalism is the position according to which one tries to understand through empirical law. He adds however that his naturalism should not be taken to mean that science can solve all problems. He even leaves the door open for religious convictions of the type that do not subscribe 'to the literal truth of Noah's flood' (p. 4). Hence, although Ruse does not say so explicitly, his version seems to be that of weak naturalism.

But even if he is trying to defend naturalism only in its weak version, he never seems to face the possible ambiguity inherent in his non-prescriptive attitude. He declares for example that 'where people have identified something as good science, that is where I find my marks of what makes for good science' (p. 5). But how *many*

people considering something as good science are enough to convince Ruse that the science in question is in fact good? If some intellectual activity is considered good science by some and bad science by others, as normally happens, how will Ruse proceed? The way one is to incorporate the results of evolutionary biology in epistemology and ethics seems therefore to depend to a considerable extent on an understanding of scientific controversy.

To some, the overall style will certainly appear wordy. But since the writing is kept on a non-technical level and since the many references enable the reader to become familiar with important literature in this area, the book is valuable in opening up a number of important philosophical issues. It will provide interesting material for students of history and philosophy of science, especially when the science concerned is biology.

Pontifical Gregorian University, Rome

Louis Caruana