



Book Reviews

Vaulting ambition: Sociobiology and the quest for human nature by Philip Kitcher. The MIT Press, 55, Hayward Street, Cambridge, MA 02142, USA, 1985, pp 456, \$ 28.75. Indian orders to Affiliated East-West Press Pvt Ltd, 25, Dr Muniappa Road, Kilpauk, Madras 600 010.

Following the shockwaves of Wilson's *Sociobiology*, there flourished a stupendous number of books, monographs and articles aspiring to unravel the mystery of human nature essentially under the lens of ethological models of non-human social behaviour. Not all of them gave new insights, approach, or speculations. Rather, many were based upon misunderstandings of either Darwinian evolution ('perpetuation of species') or the role of culture in human evolution. As Malamud said, when your train is on the wrong track, all the stations you arrive are wrong stations. No wonder most of the inferences made in these studies by human sociobiologists are flawed by a proclivity to explain human culture in terms of biology which denies the autonomy of human cerebral functions any significant place.

The polemic that has followed the publication of sociobiological literature is almost entirely predicted on the connotations, extent and significance of the 'biological bases' of culture. There is of course no dispute over the fact that potentials of development of human culture are essentially limited by human anatomical, physiological and developmental constraints which shape the human behavioural repertoire. Examples are innumerable. All our tools are thus *manipulable* with human hands, and the tiniest of pocket calculators must be big enough to accommodate our fingers for their use. Our languages contain a large number of words relating to our visual sense-data and perception, only a few to smell, and none corresponding to electroreception, and so forth. However, the sociobiology debate is concerned with a more specific claim: that human social behaviours are determined by a biological basis explained by kin selection and the individual's endeavour to maximize its inclusive fitness.

The basic structure of this claim consists of the following syllogism. Behaviour B in a group of animals appears to be beneficial for enhancing the (inclusive) fitness of those who display it. Since B is found in virtually all members of the group, B must have been fashioned under natural selection, and hence, B is adaptive. But natural selection operates only on genetic variations. Therefore, there must have been differences in genotypes between the group that displays B and its ancestors who did not. Finally, since B has a genetic basis and is adaptive, it is costly for a society to deviate from that pattern of behaviour. This train of logic construes what Kitcher sees as the Wilsonian ladder. (One can detect a circularity in this argument, but Kitcher draws attention to more serious fallacies). He sets out to dismantle each rung of the ladder by critical analysis, which I find rigorous, comprehensive, and well balanced. For Kitcher not only identifies the hard- and soft-core schools of sociobiology, but also reveals the flaws in their critiques. He points out that sociobiological questions are legitimate questions within the framework of the synthetic theory of evolution; the trouble begins with the ambitious conclusions of sociobiology concerning the adaptive significance of a particular (set of) behaviour—conclusions drawn without the necessary methodological caution about evidence. Thus "the defects lie in the method, not the matter" (p. 132).

Very few philosophers have a good knowledge of biology. Kitcher is one of those who also have a grip on mathematics strong enough to fathom the formalism of models in evolutionary biology. He exposes the faulty presuppositions and biases underlying the sociobiological explanations of parent-offspring conflict¹, homosexuality², xenophobia³, avunculate⁴, female infanticide and upper-class polygyny and hypergamy⁵, incest in European royal families^{6,7}, conflict in an Yanomamö village⁸, etc., and proves what he proclaims as the central theme of his book: "the dispute about human sociobiology is a dispute about evidence" (p. 8).

And with no convincing evidence available, the sociobiological accounts of the behavioural 'traits' turn out into just so stories, as Lewontin put it. "We can be liberal in granting the right to tell stories, as long as we are clear that is exactly what is being done" (p. 251).

Kitcher uses a brilliant and witty language (sometimes redolent of Dawkins') which makes his book fascinating. One can easily discern in his writing a bias, which is inevitable in any polemical writing. Nevertheless, his critique is not bereft of fairness and decency insofar as he chooses to attack only the strong and rigorous instances of sociobiological arguments rather than the weak and vulnerable ones.

While there have been some overreaction and undue attacks on sociobiology and the sociobiologists, it is not difficult to understand the concern of the critics for forestalling the dangerous consequences of biologism in modern politics. Sociobiologists argue that they are not racists nor sexists, neither do they support imperialist wars, but are merely endeavouring to unravel the truth, pure and simple. But Kitcher rightly states that truth is rarely pure and never simple. "The genuine worry behind the political criticism of sociobiology is that, while claims about non-human social behaviour may be carefully and rigorously defended, the sociobiologists appear to descend to wild speculations precisely where they should be most cautious"—in human affairs (p. 9).

What justifies all the caveats underscored by the critiques of sociobiology is that sociobiological literature has been repeatedly used by the organs of the New Right to erect justifications of racism, sexism, and to stand for the imperialist vested interests. What with Wilson's clear statements about his views on racism, his works, along with those of Lorenz, Morris and Dawkins, are being widely cited by the New Right in support of their political agenda. Of late, Dawkins has realised the situation clear enough to regret in the recent edition of *The selfish gene* the misuse of his metaphors.

The confusion created by mathematical simplification is another point utilised in *biopolitics*. Carefully constructed, illustrative models such as those of Boyd and Richerson⁹ can contribute to understanding the complexities of biocultural interactions and the 'run-away' evolution of culture. However, mathematical models of complex phenomena can often be misleading, due to the simplification and abstraction necessary for the sake of tractability of analysis, which the non-mathematical readers are obliged to take mostly on faith. Thus mathematical formalism, when uncautiously employed, can generate obfuscation and popular misunderstanding of the problem. An egregious example of such obfuscation of the issues is the book by Lumsden and Wilson¹⁰ which seems unnecessarily complicated, because Kitcher's relatively elementary probabilistic computations can lead us to a more realistic conception of the situation than the tortuous exercises in higher algebra (including Fourier transformations!) they indulge in. The risk of misunderstanding is increased by the few mistakes in parts of their analysis.

One may be generous, attributing the errors to the authors' carelessness and bias. There is of course a moral distinction between the puerility of biased arguments and deliberate deception, though the consequences are often just as bad. Much has been said about the potential danger of misusing and misinterpreting the popular works of sociobiology, if only because almost nothing is decisively known, to be frank and honest, about human biology. History is gore with the irretrievable losses incurred in the experiments perpetrated in the name of science on human freedom and destiny. And evolutionary theory is the most effective tool in the hands of Establishment for justification of the multitude of social injustice, in terms of the Nature of human nature, red in tooth and claw. In any case, how the fact of white Anglo-Saxon technological-military supremacy co-mingled with racial prejudices and theories of IQ contributed to the origin and perpetuation of Social Darwinism ever since Herbert Spencer had promulgated it is an interesting, and (at least to us) alarming, page of history. Equally interesting is the fact that the same old arguments of Social Darwinism are being given by the 'New' Rights to buttress the old ideology of the *status quo*. Which shows that 'human nature', the sociobiological will-o'-the-wisp, is one of the baneful ideas that seem immortal. And equally alarming, scientists shun their responsibilities when their findings are misinterpreted in the media (like the Document Associates' film *Sociobiology: Doing what comes naturally*). More surprising are the strangely irresponsible statements some sociobiologists deliberately make in their writings, apparently to catch the eyes of popularity. And these are the cases which have provoked even a champion of sociobiology into declaring it "necessary to save sociobiology from the sociobiologists" (Ruse¹¹, p. 86).

One always finds functionalistic explanations endemic in sociobiology. This can be related to the epistemological reductionism in which one part of the theory is deduced from another¹². The last step in Wilson's ladder, namely, that the only possible environments in which the optimal behaviour B can be replaced with a mutant behaviour M are undesirable, is deduced from the assumption that B displayed by the animals that exist today is the best or optimal solution to the imperative of individual reproductive success. The numerous research papers published in the last two decades describe almost everything that animals do as 'optimal', and appear to have been embedded in the Panglossian conviction that whatever exists is the best of all possibilities. It is therefore necessary to identify the double-edged sword that has been made of human sociobiology by the New Right. The blow from the sword must be parried while it is in the air. Kitcher has made a valiant attempt at it by a graceful counter-blow.

References

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Technical briefing: Skills for success and survival by Stockham, Leo W., Univelt Inc., P. O. Box 28130, San Diego, CA 92128, 1989, pp 64, \$ 20.

It is debatable whether books, which are essentially meant to be read or referred to, can help any one improve the quality of something as practice-dependent as oral presentation of technical information. Yet books with this avowed purpose continue to come out in fairly large numbers. The book under review is one such.