

Book reviews

The Triumph of Sociobiology. J. Alcock. Oxford University Press, New York. 2001. Pp. 257. Price £16.95, hardback. ISBN 0-19-514383-3.

‘No triumph of sociobiology without evolutionary psychology’

Although you cannot tell by looking at it, or by reading the synopsis on the inside cover, this is essentially a textbook, written for advanced undergraduates or graduates (as evident from the collection of superb and often deep essay questions in the Appendix). It is also good for the uninitiated and unconvinced among our colleagues. *The Triumph of Sociobiology* does an excellent job of explaining what sociobiology is and what sociobiologists do, while dispelling many misconceptions, held both by the lay person and the Goulds, Lewontins and Roses of the world. It presents a good defense of anthropomorphism in sociobiology (pp. 25-28), and of genetic explanations of behaviour, and how they differ from “genetic determinism” (pp. 52-56). Chapters 1-6 deal mostly with the behaviour of insects and birds, and much of Alcock’s discussion, especially of the “comparative method” (pp. 73-80), is fascinating to those of us who narcissistically study only one species. Chapter 9, “The Practical Applications of Sociobiology”, alone is worth buying the book for.

My only complaint with the book is its title. Throughout the book, I thought that it was *about* the triumph of sociobiology, and that Alcock would *document* how sociobiology triumphed over its critics. Only in the very last paragraph of the book (p. 223), does it become clear that Alcock believes that the triumph of sociobiology has yet to come. If Alcock believes that the triumph has not yet come, I believe he is wrong. If he believes that the triumph of sociobiology will come, I believe he is wrong.

The need for “triumph” implies a prior crisis or controversy, as indeed existed following the publication of Wilson’s *Sociobiology*. As Alcock himself notes, however, the controversy resulted purely from Wilson’s application of evolutionary principles to human behaviour. “Had Wilson omitted this last chapter [on humans], he would never have been chosen as a subject for dousing and vituperation” (p. 20). The controversy is not about whether sociobiological principles hold for birds and insects, but about whether they explain human behaviour. The verdict is already in, delivered, not by sociobiologists, but by evolutionary psychologists, whose collective empirical work demonstrates beyond any doubt that the principles of evolution by natural and sexual selection, which explain the behaviour of all species in nature, can also explain human behaviour. In other words, while the *genius* belongs to E. O. Wilson, Dawkins, Hamilton, Williams, and Trivers, the *triumph* belongs to Cosmides, Tooby, Daly, M. Wilson and Buss.

As is common among sociobiologists, Alcock blurs the distinction between sociobiology and evolutionary psychology, and inadvertently commits what Buss calls the “sociobiology fallacy.” This is the tendency of sociobiologists to focus on behaviour rather than evolved psychological mechanisms, and assume that human behaviour on the whole tends to be adaptive, (“The effect of inheriting naturally selected proximate mechanisms ought to make individuals behave in ways that generally advance their genetic success” (p. 180).) Alcock’s sociobiology fallacy leads him to conclude, in a section called “Sociobiology and Apparently Maladaptive Behavior,” that “actions that superficially seem disadvantageous to individuals may actually contribute to their economic and reproductive welfare” (p. 182), rather than pondering the possibility that much of human behaviour can be maladaptive due to the disjunction between the ancestral and current environments. Alcock does discuss what he calls “the novel environment hypothesis” (pp. 182-187), but gives the impression that human behaviour can be maladaptive only in very limited instances.

Alcock’s neglect of evolutionary psychology, which actually delivered the triumph for sociobiology, is my only complaint. Otherwise, I would recommend *The Triumph of Sociobiology* to my colleagues who teach advanced undergraduate or graduate seminars on sociobiology and evolutionary psychology, although the book contains little that is new to practitioners.

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Future Perfect: Confronting Decisions About Genetics. Lori B. Andrews. Columbia University Press, New York. 2001. Pp. 264. Price \$19.69, hardback. ISBN 0-231-12162-8.

Lori Andrews’ *Future Perfect* attempts two tasks, one descriptive, and one argumentative. It succeeds at the former, but fares less well in the latter.

Andrews’ first task is to describe the ethical problems related to genetic testing. While the book claims to be about ‘genetics,’ it is really only about genetic *testing*, and to some extent genetic *research* carried out by means of such testing. Granted, that in itself is a broad and worthy topic; but readers who hope for discussions of other genetic issues such as gene therapy, agricultural genetics, cloning, or the human genome project itself, will likely be disappointed. I however, count Andrews’ effort here as a success, though a qualified one. Andrews is to be commended for amassing, in one relatively

brief volume, references to an enormous quantity of research material related to the social and psychological effects of genetic testing. There is much to be said about the negative implications, and potential implications, of genetic testing (including availability) for women, people of colour, and individuals with disabilities, as well as for the way we think about reproduction and children; many readers will find Andrews' efforts here revealing.

I count this task as only a qualified success, however. Much of the discussion is simply too thin. Andrews makes reference to a dizzying array of sources, and these sources are cited in rapid-fire succession. Many of her paragraphs consist of only three sentences, each backed by a different endnote. A single sentence apparently suffices to summarize a finding or fact as interesting, and likely controversial, as "Thomas Jefferson used an experimental cowpox vaccine on two hundred slaves" (p. 91) or "In the context of breast cancer genetic testing, a biotechnology company exaggerated the risk of cancer that women with the genetic mutation faced" (p. 103).

Andrews' second stated project is to evaluate three competing frameworks for their suitability as paradigms for genetics policies. She dubs these the "medical model," the "public health model," and the "fundamental rights model." "Which model," she asks, "provides an appropriate starting place for genetics policy?" Must a single model be chosen? Andrews says no; but she argues, reasonably, that we should choose one model as a suitable default, and then deviations from that default should require justification.

Unfortunately, her analysis of these three frameworks is vanishingly thin. Indeed, in the chapter in which the three frameworks are compared, the "medical model" is disposed of in slightly more than one page. Very little is said about how these three frameworks interact, or about what variations on them might look like. Further, Andrews' analysis of her favoured model, the individualistic "fundamental rights model", evidences a failure to appreciate the significance of the fact that genes are shared within families and communities, and neglects to show how the mere adoption of a rights-based framework would work to ensure both that the *right* rights are supported, and that appropriate limits to those rights are respected.

This kind of under-argumentation has a tendency to trivialize the subject matter. Genetic technologies present pressing challenges, both for clinical decision-making and for policy-making. The intelligent reader will surely see from Andrews' work that there is a deeply interesting book to be written about this topic. That reader will just as surely see that this is not it.

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Broadening the Genetic Base of Crop Production. H. D. Cooper, C. Spillane and T. Hodgkin (eds). CABI Publishing, Oxford. 2001. Pp 452. Price \$140.00, hardback. ISBN 0-85199-411-3.

Initial impressions. Hmm. Well I would have picked it off the shelf but I was unsure as to how it would appeal to a broader scientific audience; time for a quick straw poll amongst my colleagues. As expected, I was greeted with initial reactions ranging from the genuinely curious to a dismissive wave of the hand. There was a universal response, however, in one respect. "What? \$140.00? Are you kidding?" Clearly the publishers are aiming squarely at the University Library market and wisely not expecting huge queues outside the local bookshop. Success therefore relies on enticing scientists to order this tome (452 pages in all) over others on their wish list.

The impetus leading to the compilation of the work arose from a 1997 workshop in Rome to further the objectives of the FAO global plan. The stated aim was to bring together papers on 'various approaches which contribute to broadening the genetic base of crops'. With over 120 authors contributing to 27 chapters, there is an impressive show of well-known names in the field. The considerable challenge for the three editors was to hone the talent on show to generate a literary thoroughbred and to avoid any 'dromedary tendencies' arising from the recommendations of this overly large committee. The editors have certainly managed to impose some structure on to what could easily have degenerated into a 'compilation album'.

The first seven chapters largely set the scene (especially Chapter 1) and outline the main problems in first, assessing and then broadening the genetic base of a crop. Five chapters that follow provide case studies to describe the genetic diversity of example crops. The remaining two sections of the book contain a series of illustrative examples of efforts to broaden the genetic base of named crops. The first includes eight chapters describing population-based approaches for the introduction of fresh diversity. The final section is entitled 'other approaches to broadening the genetic base of crops'. Needless to say, contributions in this part of the book do rather have the feel of a 'miscellaneous section', although they are not devoid of interest. As an academic compendium, the book has relatively few flaws, although I would have liked to see less repetition, a greater contribution by multinationals from the seed industry and more than a passing reference to the importance of Genetic Modification.

So, is it overall a recommended read? Well, possibly. There are elements of the book that will appeal to various audiences. The first twelve chapters could be a useful aid to teaching and many of the later chapters are sufficiently insightful to warrant reference in research papers. It is also feasible that some may chose to use the book itself as a source of reference. Whether it is sufficiently interesting in any of these areas to warrant 'must have' status in the minds of academics is a question that only time and market forces will reveal. My money would be on modest sales given the price.

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