

many readers new insight into these fascinating aspects of feral canine social life. J Serpell, himself, closes the book with a consideration of the extreme differences that can (have) exist(ed) in human attitudes toward dogs; and in the final chapter, gaps in our knowledge about dog behaviour and human-dog relationships that still need filling by further scholarly research.

*The Domestic Dog* has an attractive appearance with excellent, theme-related line drawings at the front of each chapter and several black and white photographs (some reproduced too small). This offsets the 'heavier' impression the layman might obtain browsing over the many tables and data figures. But again, the text is very readable and with just a little effort, the seriously interested lay reader will find a wealth of information. Each chapter is followed by a list of the appropriate references (as opposed to a composite list at the end of the book), and a detailed subject index for the entire book is provided.

In summary, I consider *The Domestic Dog* to be the best reference work currently available on the topic (at least on the English and German-language market) and of interest to zoologists, anthropologists, animal behaviourists, ecologists, human-animal bond specialists, small animal veterinarians and companion animal friends desiring well-founded information about their pets.

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***The Frankenstein Syndrome: Ethical and Social Issues in the Genetic Engineering of Animals***

Bernard E Rollin (1995). Cambridge University Press: Cambridge. 241pp. Paperback. Obtainable from the publishers, The Pitt Building, Trumpington Street, Cambridge CB2 1RP, UK (ISBN 0 521 47807 3 paperback, 0 521 47230 X hardback). Price £11.95 paperback, £35 hardback.

This book is a plea to take seriously the risks of genetic engineering. The author, who is qualified in philosophy, physiology and biophysics, rejects the view that all that counts is the product and not the process. He believes that it does matter which process is used, traditional selective breeding or genetic engineering. He argues that the new technology presents us with new problems. Among the risks he cites are unpredictable and unwelcome consequences of selection 'in the fast lane', the acceleration of the impoverishment of the gene pool, the release of animals which are genetically engineered disease models, the creation of new pathogens, ecological disasters and military uses. As a response to these dangers he proposes a system for democratic control of genetic engineering. Like most everything else it is too important to be left to the experts!

Despite his misgivings, he is unsympathetic to any view that rejects genetic engineering in principle. He dismisses in turn species integrity, the inviolability of nature and environmentalist mysticism as a basis for such an absolute position. His determination to take a utilitarian approach, however generously interpreted in relation to animal welfare, means that these views get a less than sympathetic hearing. It is possible that just as anthropocentric moralities displaced theocentric moralities, a new ecological ethic is emerging. Rollin,

however, sees no need for a radical shift in moral perspective. But if a fundamental change is on its way, a utilitarianism as robust as the author's is unlikely to see it coming.

In dismissing the idea that there could be anything intrinsically wrong with the biotechnologies, he inevitably ends up in philosophically stormy waters. 'It is sentience that provides the morally relevant characteristic essential for being intrinsically morally valuable' (p 57). So the reason we should attribute intrinsic value to animals is 'they are conscious and what we do to them matters to them' (p 58). This criterion may well be too restrictive for some and too hospitable for others. Some people will persist in thinking, despite his arguments, that it is important to say that the insensate natural world, or parts of it, are valuable in themselves, others will say that only some sentient creatures, perhaps the 'rational' ones, are intrinsically morally valuable. The only sense he will admit in which something could be intrinsically morally valuable is if it is itself a self-valuer. To find intrinsic value in rocks and trees would be 'spooky' (p 50). But why is it not just as spooky to see intrinsic value in a creature on the grounds that it itself values other things? Plenty of people have thought *that* an unnecessary piece of sentimentalism. If we question our values deeply enough, either out of self-interest or as part of a philosophical exercise, all values look spooky.

His defence of animal welfare as a serious moral concern is vigorous. He does not pull his punches when he reports 'the massive animal suffering on an unimagined scale' which has resulted from the application of technology and science to animal agriculture. He traces how, in response to these recent developments, an anti-cruelty ethic of animal treatment has given way to views which take a broader view of an animal's interests. This development has been driven by an increased sensitivity to the plight of animals, made particularly urgent by the post World War II replacement, in the societies that could afford it, of animal husbandry by the food industry.

His conclusion is that animal welfare, broadly understood to include the biological nature of species, must guide geneticists as well as everyone else who deals with animals. Nevertheless he denies that animals have 'Ur values' [basic values]. Unlike human beings they do not possess non-negotiable values such as freedom and reason. It would be wrong to engineer, for example, a contented human population of slaves because it would run counter to our non-negotiable values. In the absence of such values in the animal case there is no such inhibition. There is no moral objection to changing the *telos* of an animal to suit human convenience. An unfriendly critic may think that the attribution to animals of intrinsic value together with the denial of Ur-values amounts to saying that animals are valuable but not *that* valuable.

The author recommends a Conservation of Welfare Principle according to which animals ought to be no worse off if they are genetically engineered than they would be were they not. This Principle is put under strain by the creation of animals, such as the Lesch-Nyan's mouse, which are models of human disease. What is created is an animal whose whole existence is dedicated by its creators to being a high fidelity model of the career of a serious disease. In the face of the irresistible advantages that such animals hold out to medical research, elaborate argument goes out of the window. However one permutes notions like *telos* and Ur-values it is hard to see how it could be in the interest of any animal to be engineered so that its life was inherently diseased and dysfunctional. The author's best

recommendation is that, where pain and distress are devastating and where research permits, the animals be created or rendered decerebrate.

The book is written for the general reader. It is always clear and straight-forward in its presentation of issues. Even though the book is aimed at a non-specialist readership, perhaps a little more time could have been given to the science and technology involved. A simple explanation of the main ways in which transgenic animals are produced is consigned to an appendix. On the other hand, a little less time might have been dedicated to preparing the ground with criticisms of positivist views of a value-free science, reductionism, environmental philosophy, risk assessment and the role of the expert.

Bernard E Rollin has written a helpful and thoughtful introduction to the moral and social issues involved in the genetic engineering of animals.

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***Elephants and Whales: Resources for Whom?***

Edited by Milton M R Freeman and Urs P Kreuter (1994 but only available to the public 1995). Gordon and Breach Science Publishers SA: Basel. 321pp. Paperback. Obtainable from the publishers, Postfach, 4004 Basel, Switzerland (ISBN 2 88449 011 6). Price £20 or US\$30.

There is a fundamental difference between those who consider elephants and whales to be 'resources' for people, and those that consider them to be 'beings' with intrinsic rights. Those readers looking for an intellectual reconciliation of these divergent, and increasingly diverging positions, will not find it in this edited volume. Indeed, the ethics of harvesting these species are ignored or dismissed. The ethics of *not* harvesting (and thus depriving people of their livelihood) are addressed only in a preliminary fashion (in Doubleday's chapter). The book never makes an attempt to define appropriate balances of human and animal rights in the case of these bell-wether species. There is no discussion of the important issue of sentience, which lies at the heart of the controversy on whether whales and elephants should be harvested. The editors (Freeman & Kreuter), in an introductory chapter only, examine the idea obliquely by attacking the proposition that elephants and whales are intelligent (using a non-convincing and specious argument about brain body ratios that shows no understanding of basic allometry). Biocentric perspectives are dismissed (in Sugg & Kreuter) as a 'fruitless attempt to avoid the conundrum of subjectivity'.

Instead, contributors to the book accept the assumption that elephants and whales should be treated as resources. This acceptance is perhaps the only thread that binds the book together. This is a collection of papers, not an integrated set of contributions. One part of that collection is a set of chapters (Freeman & Kreuter; Sugg & Kreuter; Kreuter & Simmons; Bonner; Freeman) that advocate and rarely analyse. Alternatives are starkly contrasted, with 'bad guys' (non-governmental organizations, members of the IWC and CITES environmentalists, animal rights advocates, urbanites from western cities) and 'good guys' (utilitarians, free-marketeers, rural Africans, traditional users of resources) generalized to the point of caricature. The old, tired dichotomies are revived (conservationists vs preservationists, free markets vs government regulation, local communities vs intellectual