

repeatedly; yet they scarcely mention the more subtle thinking of Mary Midgley (*Animals and Why They Matter*), and the more synthetic approach of Bernard Rollin (*Animal Rights and Human Morality*), both of which would be more compatible with Preece and Chamberlain's own views. Occasionally they seem to rely too much on secondary sources; for example, they follow Singer in repeating the erroneous view that Descartes denied that animals have feelings. Their knowledge of biology also falls short at times. For example, they repeat the nonsense that apart from a few rare instances, animals 'attack and kill others only for sustenance, survival and territorial protection'. Evidently they have been spared a reading of modern field studies of such nasty but common behaviour as siblicide, infanticide and fatal competition over sexual partners in the animal realm.

On the surface this is an unpretentious book which perhaps tries to be too sober and reasonable to capture the wide attention enjoyed by Singer, Regan, Fox and other strident writers, but anyone who has read those authors should read Preece and Chamberlain as an antidote. If that were not reason enough, the book is also welcome for its fresh contributions to the intellectual history of animal ethics; for its admirable but not always successful attempt to portray the complexity of contemporary ethical issues surrounding animal use, and for its well-argued position that animal welfare must be approached first and foremost as a matter of the heart.

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The Great Ape Project: Equality Beyond Humanity

Edited by Paola Cavalieri and Peter Singer (1993). Fourth Estate: London. 312pp. Paperback. Obtainable from the publishers, 289 Westbourne Grove, London W11 2QA, UK (ISBN 1 85702 126 6) Price £9.99.

This book challenges some of our most fundamental conceptions about society and our place in the animal kingdom. In brief, it consists of thirty-one chapters, many written by eminent scientists, supporting the proposition that the great ape should be included in the 'community of equals' with humans. This is defined as the moral community within which certain moral principles or rights governing relationships within the community are accepted, and are enforceable by law. The authors argue that these rights should include: the right to life, the protection of individual liberty and the prohibition of torture. Laws to protect animals are not new, but if the ideas in this book were to be adopted they would represent a major change in legislation, and in the way in which we think about our relationships to non-human animals.

Although this claims to be an international book, the thrust is peculiarly American in its emphasis on human rights which are clearly derived from the Declaration of Independence. This may indeed be justified as the bulk of great ape research takes place in the USA. Unfortunately, the book suffers from a great deal of repetition, perhaps because it is multi-author. Possibly this was a deliberate ploy by the editors to produce an effect.

The most frequent arguments made in the book are that:

1. The great apes are extremely closely related to us; for example, our DNA differs from that of the chimpanzee by just over 1 per cent.
2. It is irrational to justify our current use of great apes on the basis that they are not human. The reasons put forward for this are that the criteria for dividing organisms into separate species are often geographical and temporal separation. If one ignores these factors then species are linked by a continuum of close relations. This argument is combined with the notion of our recent evolutionary separation from the apes to argue that it is illogical to make a distinction between the great apes and humans.
3. Great apes' cognitive abilities (and even knowledge of right or wrong) are such that they fall within the minimum range shown by some humans such as children and mentally impaired adults. Therefore if one extends protection to these humans, logically and humanely one should do the same to the great apes.
4. We would not be happy if the positions were reversed and apes, or perhaps more intelligent aliens, were exploiting us.
5. The authors accept that human rights are not equally applied around the globe, but argue that this cannot be used as a justification to exclude the great apes.

There are clearly a great number of difficult problems that would arise if the proposition were accepted. Firstly, if we were to give captive great apes their liberty, where would they go? There are already huge and well-documented problems involved in the rehabilitation of chimpanzees and orang-utans. They cannot simply be set free in the wild with any hope of survival. If we set aside reserves for wild apes and include them in the community of equals, some would consider it a duty to provide medical care for them. In what circumstances would intervention be morally right or wrong? How would one cope with population growth within a restricted area, and what would our reaction be to the instances of 'warfare' or intraspecific killing that have been recorded amongst wild chimpanzee groups? If killing an ape were a crime, equal to that of killing a human; would we really sentence a human to death or life imprisonment? Some might say so, but I suspect that the majority would throw their hands up in horror.

The arguments are also open to criticism. To say that we share 99 per cent of our DNA with chimpanzees, without further explanation, tells us nothing about how important the remaining 1 per cent is. For example, many species share 'junk' DNA which apparently has no present function. Dawkins and Clark's refutation of species is open-ended. Although Dawkins points out the general fallacies of discontinuous thinking, there must be a point at which organisms are so different that different ethical obligations apply.

Comparing apes to young or mentally deficient humans is also fraught with difficulties. First, apes are not the equivalents of young children or brain-damaged adults. They are organisms in their own right with capacities that are superbly adapted to their natural lives, and to treat them otherwise is to diminish them. Second, it is possible to extend the argument *ad absurdum* as there are humans who are so brain-damaged that their cognitive capacities are virtually non-existent. One would then be forced to include the entire animal kingdom in the community of equals.

Clearly one has to respect the knowledge of scientists who have spent a great deal of their lives working with apes, but one does sometimes wonder if the closeness may have led to a looseness in interpretation. For example, Fouts and Fouts' example of a chimpanzee forming an association between a Christmas tree and snow is interpreted to show a sense of time. Why it should be anything more than a learned association is not clear. Again, Koko the gorilla probably *is* self-aware, but some of the examples of signing which purport to show this, eg *Polite-Koko nut nut polite*, could be interpreted in different ways.

I remain unconvinced about the central proposition that we should include the great apes with humans in the community of equals, but I do have considerable sympathy with the ultimate aim of this book to improve the welfare of the great ape. It is clear that the great apes are a special case and that they require special treatment in terms of ethical decisions and legislation. Their intelligence and cognitive abilities have been clearly demonstrated by the work of many of the contributors to this volume. However, we must consider apes as apes and beware of turning them into second class humans.

The book is full of fascinating anecdotes and contains some very novel and stimulating ideas. I am quite certain that it will serve its purpose in raising consciousness about the use we make of great apes amongst professionals and laymen and, with luck, it may even result in sufficient pressure to improve the legislation concerning their welfare and use in various countries. I hope that this book succeeds in its ultimate aim.

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Livestock Handling and Transport

Edited by Temple Grandin (1993). CAB International: Wallingford. 352pp. Hardback. Obtainable from the publishers, Commonwealth Agricultural Bureau, Wallingford, Oxfordshire OX10 8DE, UK (ISBN 0 85198 855 5) Price £49.95; US\$95 Americas only.

This is the first book to cover the important topics of livestock handling and transport in a comprehensive manner. The transport of animals is one of *the* major welfare issues and is currently attracting much interest from the general public, research workers and legislators. The book expertly surveys the literature on the behavioural basis of animal handling and the welfare of animals during transport. There are useful reference lists compiled from diverse sources making this information more accessible. Although the publication incorporates practical experience of handling, its scope is such that it does not duplicate manuals of handling techniques. A greater understanding of the behavioural basis of animal handling can be used in the training of livestock handlers. It should also allow animal handling facilities to be designed to utilize the behaviour of animals to encourage movement in the required direction rather than relying on the use of driving instruments. The welfare benefits of this approach are a reduction in fear, stress and injury. The commercial benefits are a reduction in time and labour involved in handling and improved carcass quality.

The publication's editor – Temple Grandin – has pioneered the application of research findings to the pre-slaughter handling of farm animals and the design of handling facilities.