



Animals in Research. New Perspectives in Animal Experimentation.; Animal Rights and Human Morality.; Animal Suffering. The Science of Animal Welfare.

Review Author[s]:
Peter Singer

The Quarterly Review of Biology, Vol. 57, No. 4 (Dec., 1982), 481-482.

Stable URL:

<http://links.jstor.org/sici?sici=0033-5770%28198212%2957%3A4%3C481%3AAIRNPI%3E2.0.CO%3B2-1>

The Quarterly Review of Biology is currently published by The University of Chicago Press.

Your use of the JSTOR archive indicates your acceptance of JSTOR's Terms and Conditions of Use, available at <http://www.jstor.org/about/terms.html>. JSTOR's Terms and Conditions of Use provides, in part, that unless you have obtained prior permission, you may not download an entire issue of a journal or multiple copies of articles, and you may use content in the JSTOR archive only for your personal, non-commercial use.

Please contact the publisher regarding any further use of this work. Publisher contact information may be obtained at <http://www.jstor.org/journals/ucpress.html>.

Each copy of any part of a JSTOR transmission must contain the same copyright notice that appears on the screen or printed page of such transmission.

JSTOR is an independent not-for-profit organization dedicated to creating and preserving a digital archive of scholarly journals. For more information regarding JSTOR, please contact support@jstor.org.

the walrus, sea otter, sea lions, fur seals, and true seals. They did so by asking some 21 researchers, each of whom has worked extensively on a particular species, to write about that species.

Volume 1 presents information on the walrus, the sea otter, and seven fur seals. Volume 2 treats 16 species of true seals, including the northern and southern elephant seals. Especially well treated are taxonomy, external characteristics and morphology, distribution and abundance, and life history, and there are brief introductions to behavior, reproduction, and diseases. The handbooks are intended as guides to the types of marine mammals, and to their lives in nature, as well as (where applicable) in the laboratory or marine aquarium. The handbooks do not treat management or husbandry or the treatment of diseases: neither do they give particulars on stock levels or questions related to man's decimation of several species.

Thanks in large part to the guidelines set by the editors and to the authors' cooperation in these results, species are easily compared. Although few researchers will want to read this type of guide from beginning to end, it is a handy and always readable reference work and should be on the shelf of all serious students of the biology of marine mammals.

BERND WÜRSIG, *Moss Landing Marine Laboratories, Moss Landing, California*

ANIMALS IN RESEARCH. *New Perspectives in Animal Experimentation.*

Edited by David Sperlinger. John Wiley & Sons, Chichester and New York. \$46.50. x + 373 p.; ill.; author and subject indexes. 1981.

ANIMAL RIGHTS AND HUMAN MORALITY.

By Bernard E. Rollin. Prometheus Books, Buffalo (New York). \$17.95 (hardcover); \$9.95 (paper). xii + 182 p.; ill.; no index. 1981.

ANIMAL SUFFERING. *The Science of Animal Welfare.*

By Marian Stamp Dawkins. Published in association with Methuen, New York, by Chapman and Hall, London and New York. \$17.95 (hardcover); \$9.95 (paper). viii. + 149 p.; index. 1980.

These three books, in different ways, reflect the newly heightened awareness of animal welfare. They take their places on the steadily growing list of recent books that are bringing about a drastic re-thinking of our attitudes to the suffering of nonhuman animals. Indicative of the extent of the change in our attitudes that has already occurred is the fact that ten years ago each one of these books would have been considered extraordinary — if not ridiculous — and would have been most unlikely to be reviewed in a scientific journal like *The Quarterly Review of Biology*.

David Sperlinger is a British psychologist who

is also Chairman of the RSPCA's Animal Experimentation Advisory Committee. The authors of the new essays making up his collection are mostly scientists, though a couple of philosophers get thrown in for good measure. What is most interesting about the essays is that, while many of the scientists stress the value of animal research in their field, they all recognize that unnecessary suffering does occur in laboratories and that there is a need for tighter controls to prevent it. Modest as it may seem, this concession is a marked change from hyper-defensive scientists who used to claim, for example, that no scientist would stress an animal because that would distort the results of the experiment (as if causing stress was not sometimes the point of the experiment).

Animals in Research begins with three essays describing the state of the law — and proposals for reform — in Britain, Europe, and the United States. Sperlinger then contributes a brief account of the recent debates about the ethics of our use of animals. The next section of the book contains five essays covering the use of animals in various fields of science, the medical sciences, the biological sciences, cancer research, the behavioral sciences, and ethology. There are also essays on animal use in British and American schools. The third section is more varied: a discussion of alternatives to animal use; an essay on reduction in animal numbers through the use of microbiologically and genetically "defined" animals; a highly iconoclastic contribution arguing that in psychology the use of animals is all based on a fallacy; and finally the two philosophical contributions, one probing the intrinsic values of knowledge, and the other looking at the ethical difference between those who see a problem with experimenting on animals and those who do not.

Sperlinger's book will be a useful source for anyone wanting to be adequately informed about the ethics of animal experimentation, an issue that shows every sign of becoming more and more significant for every researcher working with animals. The book makes a much-needed antidote to the venom engendered by antivivisectionists who think that all animal experimenters are sadists, and experimenters who think that all antivivisectionists are sentimental cranks who care more for cats and dogs than for people.

Bernard Rollin also seeks the middle ground in *Animal Rights and Human Morality*. He begins by examining the moral status of animals, covering ground that in the last few years has become well-trodden. He concludes that animals do have rights, including a right to life. These rights are not absolute; they can be overridden, but Rollin cautions against the assumption that in any clash between human and animal interests, the former should prevail. Each case, he says, must be de-

cided on its merits. Rollin then moves to considering legal rights, and urges that some legal rights should be extended to animals.

There follows the section of Rollin's book that will probably hold most interest for readers of this journal, the section entitled "The Use and Abuse of Animals in Research." Rollin does not believe that the rights of animals are so strong as to require us to cease all animal experiments; but he does impose two conditions: that the benefits clearly outweigh the pain and suffering experienced by the experimental animals, and that the experiment be conducted so as to allow the animal, as far as possible, to live its life according to its nature. These conditions, Rollin believes, should be backed up by effective legislation.

What Rollin's conditions would amount to in practice is difficult to say, and the problem of writing them into legislation would be enough to give any legislative draftsman insomnia. Rollin wisely suggests that the decisions be left up to animal-care committees, which should include among their members a substantial number of nonscientists, including animal-welfare representatives. He also wants more money put into alternative methods of research, especially in toxicity and irritancy testing. Some research — he instances behavioral psychology — Rollin terms mere "empirical dabbling" without any theoretical base. This gets us nowhere, in his view, and should cease.

All of this is set out in plain language, without jargon or excessive scholarly apparatus. The case for animals is methodically argued, and enlivened by anecdotal flashes. An example: Rollin boasts about how he dealt with one psychologist who claimed he needed no justification to experiment on rats, it was just that he was stronger than a rat. Drawing on his years of weightlifting, Rollin picked the man up, and threatened to experiment on *him*. All in all, a book worth reading.

Marian Dawkins's *Animal Suffering* makes an entirely different kind of contribution to the field of animal welfare. Dawkins, an ethologist, takes no moral stand on the controversial questions of the treatment of animals, beyond saying that if we are going to do something about animal welfare, it would be a good idea to know how to establish what enhances and what diminishes the welfare of animals. To this end, she seeks to lay the foundations for what is essentially a new field of science: the science of assessing animal welfare.

In the space of her brief book, Dawkins considers six different methods of obtaining insight into the subjective experience of animals. These are: the farmer's argument that health and productivity are enough indication of satisfactory levels of welfare; an assessment of whether the animal is living under unnatural conditions;

physiological measurements; observation of behavior; choices animals themselves make; and analogies with ourselves.

All of these methods contain some sound insights, according to Dawkins, but all of them have their problems and limitations. On some of them, very little work has yet been done. Dawkins herself, for instance, has begun to set up situations in which chickens can choose the kind of housing they prefer. This method would seem applicable to a wide range of welfare questions, especially (but not only) in connection with farm animals.

As someone frequently involved in debates on animal welfare questions, I welcome the appearance of Dawkins's book. It is high time that scientists accepted the reality of mental states or conditions like welfare, and began to think about ways of gaining knowledge of them. Dawkins does exactly this. Too often those who object to long-standing practices are labelled "emotive" while those who defend what has always been done are somehow "objective." More work of the kind that Dawkins outlines will show where the truth lies.

PETER SINGER, *Philosophy, Monash University, Victoria, Australia*



ENVIRONMENTAL SCIENCES

ENVIRONMENTAL RISK ANALYSIS FOR CHEMICALS.
Van Nostrand Reinhold Environmental Engineering Series.

Edited by Richard A. Conway. Van Nostrand Reinhold Company, New York. \$37.50. xxv + 558 p.; ill.; index. 1982.

A collection of 17 papers, by individuals in chemical companies, government agencies, and research firms (plus one contributor from the Natural Resources Defense Council), this book contains chapters on pathways by which chemicals get into the environment; risks to the aquatic, the atmospheric and the terrestrial environments; models of the behavior of chemicals in ecosystems and their consequences; and several case studies. Assessing the risks chemicals pose to the environment is an enormous task — there are many possible ecosystems to consider, many potentially toxic chemicals, many types of potential harm within a given ecosystem, and many types of tests to predict toxicity. This book makes two principal contributions to dealing with these problems. First, it brings together diverse material from many sources — material that is necessary to assessing environmental risk. By doing this the book reassures the reader that there is a state of