BOOK REVIEWS

Animal Rights and Wrongs

The Hijacking of the Humane Movement. ROD and PATTI STRAND. Doral, Wilsonville, OR, 1993. xiv, 174 pp. Paper, \$16.95.

Targeted. The Anatomy of an Animal Rights Attack. LORENZ OTTO LUTHERER and MAR-GARET SHEFFIELD SIMON. University of Oklahoma Press, Norman, 1992. xx, 170 pp., illus. \$22.95.

Monkey Business. The Disturbing Case That Launched the Animal Rights Movement. KATHY SNOW GUILLERMO. National Press, Bethesda, MD, 1993. 254 pp. + plates. \$23.95.

In the Name of Science. Issues in Responsible Animal Experimentation. F. BARBARA ORLANS. Oxford University Press, New York, 1993. xiv, 297 pp., illus. \$39.95 or £27.50.

An estimated 20 to 30 million vertebrate animals are used as subjects in biomedical and behavioral research annually in the United States. Though these numbers pale in comparison with the numbers of animals used for other purposes (we consume 5 billion chickens, for example), it is the use of animals in science that has become the most bitterly contested aspect of the ongoing debate over our moral relationships with other species. Increasingly, propaganda has replaced communication between individuals on opposite sides of the controversy. Scientists ("vivisectors" in the parlance of the animal rights movement) are, in the eyes of many activists, white-coated technocrats who are oblivious to the suffering of their mute subjects in their quest for recognition and research dollars. Many researchers, on the other hand, consider their critics to be hyperemotional, anti-intellectual Luddites who prefer kittens to human beings. Advocates on both sides accuse their opponents of being modern-day Nazis.

In reality, the moral landscape is more complex than partisans on either side are wont to admit. The claim by some activists that animal research has not resulted in significant medical advances is clearly absurd. But, conversely, few scientists acknowledge the sophisticated philosophical underpinnings of the animal rights movement, believing, incorrectly, that it is based solely on sentiment and misplaced anthropomorphism. Indeed, animal activists may have done a service for those of us who work with animals by

forcing us to consider the moral implications of our research. This obligation has been acknowledged even by staunch defenders of animal research such as Adrian Morrison, director of the National Institute of Mental Health's Program for Animal Research Issues and himself a target of animal rights activists. Morrison has recently written, "Because I do experimental surgery, I go through a soulsearching every couple of months, asking myself whether I really want to continue working on cats. The answer is always yes because I know that there is no other way for medicine to progress but through animal experimentation and that basic research ultimately leads to unforeseen benefits."

Three of the four books reviewed here are emblematic of the propaganda war that has arisen between opposing parties in this controversy; two are highly critical accounts of the animal rights activism, whereas the third is a blatantly self-serving depiction of the infamous Silver Spring Monkeys case by the Director of Education of People for the Ethical Treatment of Animals. The fourth book, in contrast, is a thoughtful statement of the "animal welfare" position—a compromise that is philosophically less satisfying yet eminently more pragmatic than either extreme.

The Hijacking of the Humane Movement and Targeted: The Anatomy of an Animal Rights Attack represent the growing backlash against the animal rights activism. Unfortunately, both books shed more heat than light on the topic. Strand and Strand portray the animal rights movement as a hierarchical, anti-democratic, New Age cult the goal of which is not only the cessation of animal research, intensive agriculture, and hunting but the elimination of pets and even private property. The authors ignore the diversity of opinion among activists concerning issues such as the philosophical underpinnings of the movement, uses of animals that are morally acceptable, and the appropriateness of civil disobedience as a strategy. Most egregiously, the authors do not distinguish between the environmental movement and the animal rights movement. In actuality, the two causes are based on quite different premises; animal rights activists tend to focus their energies on the well-being of individual animals, whereas environmentalists are primarily concerned with the preservation of species and ecosystems. This difference sometimes creates conflicts, and the

relationship between proponents of the two movements is uneasy at best.

The 1989 break-in of the laboratory of John Orem, a physiologist at Texas Tech Health Sciences Center, is the focal event of Targeted: The Anatomy of an Animal Rights Attack. Although its style is more academic than that of The Hijacking of the Humane Movement, the books share ideologies and have the same penchant for the half-truths and over-generalizations that scientists find so infuriating when directed at them by animal protectionists. Targeted does, however, offer a compelling account of the effects of the attack on Orem, whose research with cats was related to such human disorders as sudden infant death syndrome. Orem's work was set back at least a year by the "liberation" of his animals and the destruction of his laboratory. He was vilified in print, and death threats became common occurrences in his life. The lukewarm support he received from some of his colleagues, the National Institutes of Health, and university officials (who received over 10,000 anti-Orem letters from animal rights activists) certainly contributed to his sense of isolation. The second half of the book is intended as a guide for animal researchers and university administrators. It offers suggestions on media relations before and after a laboratory break-in, crisis management strategies, and campus security. The authors also discuss the operation of Institutional Animal Care and Use Committees and provide an overview of legal and legislative issues related to animal activism.

Lutherer and Simon correctly argue that researchers who work with animals should understand the roots of the animal rights movement and the psychology of individuals involved in it. Yet, aside from their accounts of the history of the movement, neither Targeted nor The Hijacking of the Humane Movement offers more than superficial insights into the movement's appeal. Several recent studies, for example, have found that animal activists are typically bright and well educated and often hold professional positions. Because these two books portray activists as mindless dupes of a small cadre of manipulative and fanatical leaders, they offer little insight into the factors that draw intelligent people to this movement.

Further, there are recent findings that suggest that both of these books may exaggerate the current threat that animal activists pose to most researchers. The Animal Enterprise Protection Act of 1992 directed the Department of Justice to assess animal extremist activities in the United States. In the resulting Report to Congress on the Extent and Effects of Domestic and International Terrorism on Animal Enterprises, issued in August of this year, the authors concluded, after reviewing 313 incidents associated with the animal

rights movement since 1977, that only three could be considered terrorist attacks (one of these was the destruction of Orem's laboratory). About half the incidents involved minor vandalism. Personal attacks were less common than generally thought over the 16-year period: 29 threats, 26 cases of major property damage including arson, two cases of assault, and one assassination attempt. Most of these were attributed to actions by the clandestine Animal Liberation Front, an organization that the report estimates to have fewer than 100 members. The report concludes, "Most extremist animal rights-related activities continue to be small-scale and haphazard." The number of animal extremist incidents increased during the 1980s. Since then, however, there has been a steady decrease from 53 incidents in 1987 to 11 in 1992. Though the report almost certainly underestimates the actual number of incidents, this trend is certainly encouraging, though it will be of little solace to those re-searchers whose professional and personal lives have been disrupted by animal extremists.

Since it was founded in 1980 by Ingrid Newkirk and Alex Pacheco, People for the Ethical Treatment of Animals has been among the most vocal opponents of animal research. Monkey Business is a PETA's-eye view of the decade-long saga of the Silver Spring monkeys. The case began in 1981 when Pacheco persuaded the Montgomery County, Maryland, police to raid Edward Taub's laboratory. Seventeen monkeys that Taub was using in studies of recovery of function following somatosensory deafferentation were confiscated and became the unwitting objects of an entangled series of legal proceedings that eventually reached the Supreme Court.

The protagonists in this account are typecast. The heroes are principally Pacheco and Newkirk, along with their cadre of lawyers and congressional supporters and a handful of sympathetic scientific advisers. The villains include Taub, his backers in the scientific community, and officials at the National Institutes of Health. One might think that PETA's version of this story would make for interesting, if biased, reading. It does not. Guillermo's protracted descriptions of negotiations between NIH officials and PETA lawyers and of nearly a dozen court hearings will quickly become tiresome to all but the most avid PETA supporters. Several recent ethnographies indicate that animal activists are often complicated individuals; they struggle with a particularly heavy personal moral burden as they try to maintain consistency between belief and behavior in an ethically intricate world. Guillermo's portraits of Pacheco, Newkirk, and company, however, are superficial and doctrinaire, and they provide little insight into the more complex facets of the psychology of animal activists.

PETA is controversial even in animal rights circles. With 350,000 members and a \$10-million budget, it is by far the most powerful and effective animal rights organization in the country. PETA is also notoriously secretive. Unfortunately, Monkey Business reveals nothing of its organizational structure and dynamics. Not surprisingly, there is no mention of a series of recent events that have proven embarrassing to PETA, including the hostile takeover of the New England Anti-Vivisection Society and an ill-conceived advertising campaign in which the consumption of meat was equated with cannibalism. Perhaps most telling was the revelation that at the same time Pacheco and company were engaged in endless legal machinations to prevent the euthanasia of those Silver Spring monkeys that were seriously ill, PETA employees were themselves killing healthy rabbits and chickens at the organization's Aspen Hill, Maryland, Memorial Park and Animal Sanctuary, a facility referred to in a letter to contributors as "truly a safe haven." Ingrid Newkirk's explanation was reasonable—there was insufficient room at the facility for the animals. This affair, however, illustrates the fact that even the most vociferous animal activists are sometimes forced to confront moral ambiguities that are often an inevitable consequence of even well-intentioned interactions with other species. It is little wonder that some critics

feel that PETA's main motivation in the legal fight over Taub's monkeys had to do as much with fund-raising as with genuine concern for the animals.

The Silver Spring Monkeys case was a seminal event in changing public sentiments about animal experimentation and was instrumental in the passage of the 1985 amendments to the Animal Welfare Act. In the 1980s, Pacheco's famous crucifixion-like photograph of a monkey tied to a restraint chair became the icon of the movement to curtail research with animals. Readers interested in a more objective account of the events and the central characters, however, should eschew PETA's book and turn instead to Caroline Fraser's extended article "The raid at Silver Spring," which appeared in the 19 April 1993 issue of *The New Yorker*.

Mercifully devoid of the polemics of the other books reviewed here, In the Name of Science is a comprehensive statement of the position that the philosopher Strachan Donnelley has termed "the troubled middle." F. Barbara Orlans, the author, is a physiologist and the founder of the Scientists Center for Animal Welfare. The book covers an impressive array of topics related to the ethics of animal experimentation, including the decision dynamics of Institutional Animal Care and Use Committees, federal animal care regulations, dissection as a pedagogical tool, indexes of pain in experimental ani-



Claude Bernard in his laboratory as depicted in an 1889 painting now at the National Academy of Medicine in Paris. "At times, Bernard's animal research attracted unfavorable attention," as when he unwittingly experimented on a pet dog that had been stolen from the commissary of police, and an account of the conditions in his laboratory by a one-time assistant there "helped fuel the fire for regulation" of animal experimentation in Britain. [From *In the Name of Science*; Wellcome Institute Library, London]



Vignettes: Artificial Life

There are . . . many ways in which to attack the problem of artificial life. The earliest, dating back at least to the Greeks, had been to copy the form of living things as perfectly as possible: *true to life*, like the waxworks at Madame Tussaud's. Later, the challenge was to make things move. The most famous example is Vaucanson's artificial duck, built towards the middle of the eighteenth century and unfortunately lost today, a marvel of mechanical ingenuity able to drink, eat, quack and splash about. . . . Two hundred years later, the interest had shifted from animation to replication. Gone was the quack of the duck; gone were the flesh and bones and all that is called, in the jargon of today's computer biology, the *wetware*. It's all reduced to coded blueprints nowadays.

—Karl Sigmund, in Games of Life: Explorations in Ecology, Evolution, and Behaviour (Oxford University Press)

The myth of artificial, man-made life is found in many cultures. In Greek mythology, Hephaestus created golden mechanical women to help him in his smithy ("There is intelligence in their hearts, and there is speech in them/and strength, and from the immortal gods they have learned how to do things," sang Homer in the *Iliad*), and built Talos, a giant warrior to protect Crete. In Jewish tradition there is the story of the Golem In China, Kung Mu of the Chou Dynasty built a robot; in Japan there is the twelfth-century tale of the wizard Mononaka, who created several automata, some of which, unbeknownst to anyone, became leading politicians.

—Steven Lubar, in Infoculture: The Smithsonian Book of Information Age Inventions (Houghton Mifflin, forthcoming)

mals, sources of funding for the development of alternatives to the use of vertebrates, high school science fairs, and the implications of animal welfare issues for the publication policies of scientific journals. Modern science is an international enterprise, and Orlans's treatment of these topics is enhanced by coverage of the legal and moral climate for animal research in Europe, Canada, and Australia.

Orlans has a point of view, and the book will no doubt draw fire from critics on both sides of the animal research controversy. By and large, she advocates compromise. Her discussion of the ethical issues raised by the experimental use of dogs and cats obtained from animal shelters is representative of her attempt at a middle ground. She reviews the history of the use of pound animals in research, describes recent legislation related to the issue, and evaluates the relative advantages and disadvantages of using these animals as subjects. She argues that dogs that were at one time family pets do, in fact, suffer more from confinement in laboratories than purpose-bred animals that have been raised in kennels from birth. On the other hand, Orlans acknowledges that pound animals are considerably less expensive to obtain and have an ethical advantage in that the vast majority of them will be euthanized anyway. She proposes a compromise that will satisfy neither animal rights activists nor their adversaries in the biomedical community. She believes that much of the suffering experienced by pound animals is a consequence of their being maintained for extended periods in laboratories and of the transportation process and advocates a policy whereby pound animals would only be used as subjects in terminal experiments of short duration undertaken within 24 hours after the animals are taken from shelters.

In the Name of Science does not gloss over the moral quagmire conveniently ignored by dogmatists on either side of the debate. Unlike Guillermo, Orlans clearly understands the relationship between animal research and biomedical progress. But, in contrast to Strand and Strand and Simon and Lutherer, she also acknowledges the ethical paradox that confronts animal researchers—we use animals because they are similar to us in behavior or physiology, but similarity in behavior and biology implies similarity of mental experience. Thus the more justified the use of a species on scientific grounds, the less justified is its use on ethical grounds.

Finally, there is some evidence to suggest that public sympathy for animal activism may be on the decline. I recently analyzed trends in media coverage of the animal rights movement by counting the number of articles on the topic that were listed in InfoTrac, a computerized periodical index, and

in the Readers' Guide to Periodical Literature. Data from both sources indicate that the number of articles on the movement in magazines and newspapers peaked in 1990, with a substantial decline since then. There was a strong and visible anti-vivisection movement in the United States at the turn of the century. By 1920 the movement seemingly ran out of steam, not to emerge again until the mid-1970s. It is possible that public interest in animal protection, as in certain other social phenomena (drug addiction, for example) is, by nature, cyclic.

The effect that animal rights activism will ultimately have on the conduct of science remains to be seen. But, almost certainly, the long-term solution to the practical problem of facilitating biomedical progress while at the same time reducing numbers and suffering of experimental animals lies largely within the province of Donnelley's troubled middle. Thus Orlans's book will, in the long run, be considerably more important than diatribes from either extreme.

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Spy Secrets

Beyond the Wall. Memoirs of an East and West German Spy. WERNER STILLER, with Jefferson Adams (editor and translator). Brassey's (US), McLean, VA, 1992 (distributor, Macmillan, Riverside, NJ), and Maxwell Macmillan, London. xxii, 240 pp., illus. \$25 or £19.95. Translated from the German edition (Mainz, 1986).

The fall of the Berlin wall four years ago not only unleashed a chain of events leading to democratization in East Germany and unification for all but also opened a Pandora's box of troubling secrets previously locked in a heavily fortified complex of buildings in East Berlin: the Ministry for State Security, or Stasi-East Germany's secret police and intelligence agency. Since unification, every citizen has been given the right to see his or her file, and the files have also been used or misused to exonerate or condemn citizens ranging in profession from public servant to scientist. In the world of science, most of the Stasi activity that has become known consists of cases of scientists who worked as informal staff members, or informants (inoffizielle Mitarbeiter), for the Stasi.

This book, first published in German in 1986 under the title *Im Zentrum der Spionage*, provides an absorbing account of the science espionage enterprise from the vantage point of a case officer in the nuclear physics department at the Stasi's Berlin headquarters.