Radicals and Others

The Animal Rights Crusade. The Growth of a Moral Protest. JAMES M. JASPER and DOROTHY NELKIN. Free Press (Macmillan), New York, 1991. x, 214 pp. \$22.95.

The animal rights movement has been one of the most visible and vocal of recent social movements. The radical nature of certain goals associated with the movement also marks it as especially far-reaching in its potential effects. But for all its visibility and potential significance, little in the way of dispassionate scholarship has been produced on the movement. Instead, most of what we know about the movement has come from the news media, which, predictably, have been drawn to its more sensational aspects. So splashy coverage of raids on animal research laboratories or angry confrontations between animal rights activists-"terrorists" in many stories-and fur store owners has substituted for a sober account of the emergence, development, and current status of the movement. However, those interested in the latter can now take heart. Two sociologists, James Jasper and Dorothy Nelkin, have written just such a book.

The Animal Rights Crusade: The Growth of a Moral Protest is an eminently readable, rich descriptive history of the movement. There is much to admire in the book. For starters, Jasper and Nelkin eschew the media's preoccupation with the radical wing of the movement-"fundamentalists"-and instead grant equal time to the more moderate ("pragmatists") and conservative ("welfarists") branches of the movement. For someone who has heretofore viewed the movement through the distorting lens of the news media, the effect is a little like finally glimpsing the huge mass of the iceberg that normally lies submerged beneath the ocean's surface. One can't help being impressed by the sheer size and ideological diversity of the movement as sketched by the authors.

To capture this ideological diversity Jasper and Nelkin devote a chapter to each of five substantive issues addressed by the movement. These are the treatment of animals in the wild; animal testing by the cosmetics industry; scientific research on animals; animals as commodities; and the use of animals in entertainment. This substantive accounting serves as the perfect vehicle to reveal the ideological divisions within the movement. From comparing the positions of the movement's three wings across these five issues, the reader comes away with a rich, nuanced view of the movement and the debates that currently inform it.

In recounting the history of the movement, the authors also dispel the popular impression that the struggle over animal rights simply exploded onto the scene in the early 1980s. Instead, as their chapter "The compassionate tradition" makes clear, the present movement has its roots squarely in a long tradition of organized advocacy on behalf of animals. The local humane societies and chapters of the SPCA are only the most tangible legacies of this tradition.

Finally, and perhaps most relevant for the readers of Science, there is a great deal of material in the book on the challenge to science posed by the movement. The authors see the movement as yet another expression of the growing disenchantment with and distrust of science, first voiced in regard to the uses of scientific knowledge in Vietnam but nurtured as well by the environmental, anti-nuclear, feminist, and prolife movements. The critique, though, has been carried to new ideological and tactical extremes by the radical wing of the movement. Attacks on research labs coupled with crude anti-science rhetoric have served, in the minds of many-and probably the majority of scientists-to brand animal rights activists as "new Luddites," atavistic reactionaries opposed to scientific enlightenment and progress.

But this characterization does a disservice not only to the movement but to the scientific community as well. To varying degrees the pragmatists and welfarists grant legitimacy to the fundamental aims of science but take issue with the necessity of many of its practices. Among scientists, for their part, there are plenty who decry outdated and questionable research procedures that result in unnecessary pain and suffering for animals. And in doing so these scientists are merely adding their voices to a long and distinguished list of predecessors who, often at considerable cost to themselves, have questioned the ethics and practices of their fields.

But for all its considerable virtues, *The Animal Rights Crusade* is not above criticism. My chief complaint would be that it is far richer descriptively than it is analytically. That is, it does not present the subject in a way that is instructive about movements more generally. I applaud the authors' attempt to write for a broad audience (sociologists have risked rendering themselves largely irrelevant in recent years by eschewing larger audiences in favor of ever smaller groups of specialists) but still think an analytic dimension might have been brought to the subject without compromising the book's "reader-friendly" tone.

To illustrate how this approach might have worked, I will draw upon the large scholarly literature on social movements to account for the successes the animal rights movement has enjoyed to date. Jasper and Nelkin document the movement's victories in the five substantive areas listed earlier but do little to explain them. Indeed, one might think the very stridency and extremism characteristic of some in the movement would preclude such victories—or at least our own philosophic and aesthetic sensibilities might lead us to hope this would be the case.

But, in fact, reference to other empirical studies of social movements leads us to predict just the opposite. There are at least three reasons why. The first centers on what social-movement researchers have termed "radical flank effects." The presence of a credible and threatening "radical flank" tends to benefit a movement, by granting "moderates" increased legitimacy in the eyes of movement opponents, even as the moderates themselves are broadening their goals in response to the pressure applied by the radicals. The effect is to make the increasingly radical demands of the moderates look reasonable in relation to the even more extreme positions of the radicals. It is clear from Jasper and Nelkin's account that the presence of "fundamentalist" groups such as the Animal Liberation Front and Trans Species Unlimited has indeed frightened movement opponents and made the seemingly more moderate positions of the pragmatists and welfarists more palatable.

A second finding from the social-movement literature may shed a bit more light on the specific dynamics that produce "radical flank effects." In a historical survey of some 53 social movement groups, the sociologist William Gamson found the groups who used "force and violence" to have been more successful in achieving their goals. Notwithstanding conventional political wisdom, Gamson's finding suggests that the twin "carrots" of moderation and compromise are rendered all the more attractive by occasional recourse to the stick. Again, the recent history of the animal rights movement appears to confirm this conclusion.

Finally, the very extremism and intolerance we find so objectionable in the fundamentalists have been shown in other contexts to foster the solidarity and commitment necessary for movement success. By drawing a very stark moral line between "us" and "them," all manner of political radicals imbue themselves with the moral certainty and fervor that fuel action. Animal rights fundamentalists afford but the latest example of the political functions that flow from narrow minds.

Ironically, Jasper and Nelkin conclude the book with an editorial admonition that flies in the face of the empirical findings noted above. They warn that "in the long run, radical positions may be counterproductive. Fundamentalist tactics undermine the ability to engage those with competing visions in the democratic conversation necessary to develop acceptable policies." Much as I share the ideological sensibilities expressed by the authors, the history of social movements suggests an opposite conclusion. By leavening their descriptive account of the movement with more analysis grounded in the study of social movements more broadly, Jasper and Nelkin might well have tempered their final conclusion. More important, they would have deepened the reader's understanding of social movement processes as well as writing a first-rate history of the animal rights crusade.

> DOUGLAS MCADAM Center for Advanced Study in Behavioral Sciences, Stanford, CA 94305

An Issue of Distribution

The Greatest Good to the Greatest Number. Penicillin Rationing on the American Home Front, 1940–1945. DAVID P. ADAMS. Lang, New York, 1991. x, 227 pp. \$38.95. American University Studies, series 9, vol. 95.

The discovery of the antimicrobial action of the mold *Penicillium* by Alexander Fleming is one of the best-known stories in recent medical history, and the complex process of development pushed by English researchers, American government scientists, and the American pharmaceutical industry has also received ample treatment. David P. Adams has now added a compact, well-researched, and intelligently conceived account of the drug's impact on the public mind and the methods adopted by the Roosevelt Administration to make a limited supply of penicillin available to the public.

The focus is on the social impact not only

of a scientific discovery but of the medical establishment that came to control the distribution of penicillin to civilians. During World War II, white males mostly of Protestant upbringing, usually with close ties to the eastern universities, ran a system of medical research and development that was relatively compact, frankly elitist, and highly effective. Prominent academic physicians held posts in an interlocking directorate that included the medical corps of the armed forces, the Army Epidemiological Board, the relevant committees of the National Research Council (NRC), and the Committee on Medical Research of Vannevar Bush's Office of Scientific Research and Development. They operated in the heyday of Rooseveltian bureaucratic management, and in a time when Americans-at least by comparison with the present-tended to be deferential to authority figures.

The group that dealt with penicillin fairly represented the whole, being small, homogeneous, and self-assured. In 1943 clinical trials convinced the armed forces of the efficacy of penicillin, and their sudden heavy demands for the drug impacted on a pharmaceutical industry in which output was low and the techniques of mass production were still in process of development. At about the same time, stories of wonderful cures also began to spread in the news media, creating a roaring public demand. Some of the excitement was driven by a vague belief that penicillin cured anything, including cancer. Some of it was grossly sentimental, featuring newspaper accounts of deathbed appeals for sick children, whose illnesses might or might not be treatable. Much of it, however, was driven by the genuine needs of sick people who hoped to benefit from the "wonder drug" and their physicians who hoped to save them.

Somebody had to say no to many of them, and he had to have some logical and politically acceptable basis on which to do so. Adams's hero is Chester Keefer, M.D., chairman of the Committee on Chemotherapeutic and Other Agents of the NRC's Division of Medical Research, who enforced rationing in the face of severe public criticism during the period when escalating demand pressed hardest against still inadequate supplies. Basically, Keefer ran a system under which the drug was allotted free of charge, first to cases in which clinical research promised results useful to the armed forces, and second to acute cases of diseases that were known to be treatable by it. Adams argues that alternative methods of distribution would have been less equitable and that bureaucratic impersonality and the appearance of scientific objectivity must have allowed many physicians to refuse to make

attempts to obtain the drug in inappropriate cases without feelings of personal guilt.

Despite the book's title, it seems evident that penicillin allotment had little to do with the greatest good for the greatest number and very much to do with the war effort. With 85 percent of the supply going directly to the armed forces and military relevance determining in substantial part who got the rest, Keefer operated a system that Adams properly compares to triage, under which chronic conditions and the needs of nursing home patients got short shrift. The system was able to work largely because the nation accepted its basic premises as a wartime exigency.

Hence Adams's repeated comparisons of the penicillin issue to organ donation, bone marrow transplants, AZT, and other problems of today, where cost largely determines the outcome, seem to have limited real significance. The problem of distributing scarce resources recurs ever more urgently as medicine's miracles become more costly, but the solution, whatever it may be, cannot be the same as during World War II. The voice of history, as usual, speaks in tones of irony, offering suggestive analogies but no answers.

> ALBERT COWDREY U.S. Army Center of Military History, Washington, DC 20314

Centuries of Science

The Science Matrix. The Journey, Travails, Triumphs. FREDERICK SEITZ. Springer-Verlag, New York, 1992. xiv, 146 pp. \$39.50.

In this series of essays Frederick Seitz describes how the natural sciences arose and what they mean to our present civilization. About half of the book is devoted to the past, with the remainder given over to comments on the present and future interactions of science and society. Seitz has brought to these topics an unusual background. He was one of the early workers in and professors of solid state physics and was a founding editor of a well-known series of books on the subject. Later, he was president of the National Academy of Sciences and then of the Rockefeller University. A lifelong student of the history of science, he has approached it from a physicist's viewpoint in identifying crucial factors and discoveries. He has provided capsule biographies of key contributors, with brief descriptions of the circumstances surrounding them. He emphasizes the important role of the Greeks, including Pythagoras, Plato, Aristotle, Euclid, and Archimedes. Their contributions were pre-