**COMMENT**

**The Metaphysics of Anthropocentrism**

A Review of Paul Ehrenfeld's

*The Arrogance of Humanism*

and Mary Midgley's

*Beast and Man*

Bernard E. Rollin

It is sometimes easy to forget that moral choices, positions, and problems cannot be separated from one's world-view, or to use the technical jargon, one's metaphysical position. When the Sophists, for example, argued that good and bad were relative to societies and even to individuals, their position was based on seeing the world as perpetually in flux, and knowledge as immediate perception of what is happening now. Plato's argument for eternal moral truths, in opposition to the Sophists, was grounded in his belief that flux was only apparent, and that the skeletal structure of reality was frozen and immutable, with mathematics serving as the paradigm of knowledge.

Our attitudes and behavior toward nature and toward other forms of life are clearly in the forefront of contemporary ethical concern. It thus becomes necessary to examine critically the metaphysics which has traditionally grounded these attitudes. Unquestionably, the key feature of the dominant underlying conceptual scheme has been the positing of a clear-cut dichotomy between man and the natural world. For most of the Greeks, man is radically separated from nature—he lives in the realm of nomos, convention, or law, above the realm of physis, nature. He can reason, communicate, choose, create a social order, apprehend ultimate reality, and even remove himself by his own efforts from whatever vestiges of raw nature adhere to him by virtue of the fact that he inhabits a body. For the Jews, man was again set apart, and the rest of nature was given to him as a tool-chest—not to be abused, to be sure, but to be dealt with as something ready-at-hand. The Greek and the Hebrew fuse in Christianity, and an even later wege is driven between us and the world.

The ethical and practical consequences of this sort of conceptual scheme are obvious and direct. We are separate from nature, we are better than nature, we should use nature to our advantage, we can and should employ our reason to run nature, and subjugate it, and improve it. And for the past few hundred years, we have been able to manipulate nature on a significant scale. Paul Ehrenfeld's book, *The Arrogance of Humanism*, examines the effects of this metaphysics. Most of his concern is not with the soundness of the metaphysics, but with its pernicious consequences in action and even more basically, with its failure to deliver on its promises. This, of course, is the real value of Ehrenfeld's book—its relentless, anecdotal catalogue of failures of "humanism" to deliver on its promise to control and improve. The picture which emerges from Ehrenfeld's account is one of colossal chutzpah, the short-sighted hubris of the male bassett hound pursuing the Great Dane bitch in heat.

Ehrenfeld convincingly shows that substantial numbers of influential people believe that we can effectively control all aspects of the world: mind, body, and environment. We believe we can measure personality objectively, control behavior, explain the past, predict the future. We believe that we are on the threshold of controlling disease, repairing genetic defects, correcting chemical imbalances pharmacologically. We believe that we can design crops, control pests, irrigate the deserts, establish colonies in space, design new sources of energy. Ehrenfeld notes that invariably these claims are programmatic and promising—the technology is "just around the corner"; "we are right on the verge..." But even more to the point, many of our alleged achievements are fraudulent; unable to withstand close scrutiny. Anyone who has looked beyond the glittering surfaces of many of our most touted achievements finds that they have no substance. This is glaringly obvious in the behavioral and social sciences. Jargon replaces insight; quantitative "methods" and "mathematical techniques" dignify the obvious with an air of exotic inscrutability. All of this would be funny if it did not result in damaged lives. Witness the thousands of children labelled "hyperactive" or "Minimally Brain Damaged" (MBD)—impressive sounding diagnoses which have absolutely no empirical content. Witness the thousands of young people whose futures are determined by one day's SAT examinations, a test whose results can, in one fell swoop, negate the achievements of an entire four years of hard work in high school as far as college admission is concerned.

By applying what Ehrenfeld calls "end product analysis," or long-run reckoning of "effects," we find that other apparent successes have a fragile base. For example, we may ask if the miraculous advances in psychopharmacology really are of value if they only succeed in masking and concealing the natural responses to a stressful and anxiety-producing society, so that instead of trying to diminish the stress, we can simply suppress its symptoms? Or as we have asked in a recent paper, does not the proliferation of medical specialties which seems to discover more and more diseases to be treated, in fact in a deep sense create them (Rollin, 1979)? Has the medical science which has undermined our faith in our abilities to maintain a point of view ultimately done us a favor, when an ever-increasing number of us can anticipate iatrogenic effects, vegetable existences on respirators, or lonely, nightmarish imprisonments in the concentration camps called "nursing homes?"

Ehrenfeld applies the same sort of reasoning to our mucking about with the environment, and emerges with similar results. The attempt to exterminate pests creates more pests. Intensive agriculture hurts the land, creates deserts, and makes the crops more vulnerable to disease. The attempt to destroy using scrubbers yields acid rain, and so forth. The key point which emerges is that we are not in full control. We cannot model ecological systems; we cannot even isolate the relevant variables. This is true in virtually all aspects of science. Our predictive power is highly limited, in fact if not in principle, but perhaps in principle as well. In any case, as many neo-puritans have pointed out, our ability to manipulate has outrun our ability to understand, technology has outpaced science. The clarification of our values has not kept pace with the accumulation of our power. As one of my colleagues puts it, we have "know how" without "know-why."

In a deep sense, none of this is news. Those of us who grew up during or immediately after World War II spent our adolescence lamenting technology, dehumanization, mechanization, etc. We formed communes in the 60s, and brought fortunes to the purveyors of yogurt and brown rice.Aside from some well-researched examples, Ehrenfeld brings little that is new or helpful or deep, though he restates the problem well for a new generation. Like Pirsig, Toffler,
COMMENT

The Metaphysics of Anthropocentrism
A Review of Paul Ehrenfeld's
The Arrogance of Humanism
and Mary Midgley's
Beast and Man

Bernard E. Rollin

It is sometimes easy to forget that moral choices, positions, and problems cannot be separated from one’s world-view, or to use the technical jargon, one’s metaphysical position. When the Sophists, for example, argued that good and bad were relative to societies and even to individuals, their position was based on seeing the world as perpetually in flux, and knowledge as immediate perception of what is happening now. Plato’s argument for eternal moral truths, in opposition to the Sophists, was grounded in his belief that flux was only apparent, and that the skeletal structure of reality was frozen and immutable, with mathematics serving as the paradigm case of knowledge.

Our attitudes and behavior toward nature and toward other forms of life are clearly in the forefront of contemporary ethical concern. It thus becomes necessary to examine critically the metaphysics which has traditionally grounded these attitudes. Unquestionably, the key feature of the dominant underlying conceptual scheme has been the posting of a clear-cut dichotomy between man and the natural world. For most of the Greeks, man is radically separated from nature — he lives in the realm of physis, nature. He can reason, communicate, choose, create a social order, apprehend ultimate reality, and even remove himself by his own efforts from whatever vestiges of raw nature adhere to him by virtue of the fact that he inhabits a body. For the Jews, man was again set apart, and the rest of nature was given to him as a tool-chest — not to be abused, to be sure, but to be dealt with as something ready-at-hand. The Greek and the Hebrew fuse in Plato’s argument for eternal moral truths, in opposition to him, was grounded in his belief that flux was only apparent, and that the skeletal structure of reality was frozen and immutable, with mathematics serving as the paradigm case of knowledge.

The ethical and practical consequences of this sort of conceptual scheme are obvious and direct. We are separate from nature, we are better than nature, we should use nature to our advantage, we can and should employ our reason to run nature, and subjugate it, and improve it. And for the past few hundred years, we have been able to manipulate nature on a significant scale. Paul Ehrenfeld’s book, The Arrogance of Humanism, examines the effects of this metaphysics. Most of his concern is not with the soundness of the metaphysics, but with its pernicious consequences in action and even more basically, with its failure to deliver on its promises. This, in fact, is the real value of Ehrenfeld’s book — its relentless, anecdotal catalogue of failures of “humanism” to deliver on its promise to control and improve. The picture which emerges from Ehrenfeld’s ac-

Dr. Rollin is Professor of Philosophy, Professor of Physiology and Biophysics, and Director of Bioethical Planning at Colorado State University, Fort Collins, CO 80523.
Reich, and innumerable others, Ehrenfeld is a cocktail party Jeremiah, with little to offer in terms of solutions. We must unify emotion and reason, he tells us. Emotion can save us from the excesses of reason gone awry. We must turn away from reason. Reason has produced the absurdities he has chronicled. Reason can be used to prove anything—we need to trust emotion. All of which is too simplistic to refute, save to point out that the same sort of smear campaign can be launched against emotion. After all, emotion gave us Adolf Hitler, the Crusades, and Lawrence Welk.

Style matches content in Ehrenfeld’s book. He raves, he rants, he vents his spleen, he mesmerizes. Typically, he doesn’t argue or even explain at length or in depth. How does one balance reason and emotion? How does one know that one has reached the end of an end-product analysis? Must humanism necessarily take the form he describes? How does one begin to effect changes in the things he condemns if our entire society is locked into it—economically, educationally, agriculturally, technologically, and as he says, religiously (the “religion of humanism”)? In one potentially interesting chapter, Ehrenfeld describes the various utilitarian justifications conservationists can and have mustered for preserving nature. In that chapter, he stresses an obvious point—there is no necessity that human utilitarian objectives will always or even often jibe with ecologial needs. What we need, he suggests, is an ethic which will see nature as valuable in itself. However, while he devotes 30 pages to presenting and criticizing the utilitarian defense of nature, this new and valuable approach is dealt with in 4. This is a significant omission, for if anything can save us from the fate Ehrenfeld describes, it is a moral and metaphysical Gestalt shift. Some thinkers, notably my colleague Holmes Rolston (Rolston, 1975), have done pioneering work on an ethic which gives intrinsic value to nature. Such a position must be clarified at length before we, who are steeped in a metaphysics which identifies “human” with “valuable,” can find it at all plausible.

Not long ago, I was discussing the salability of philosophy books with a senior editor at a major New York publisher. People do not want arguments, I was told. They want oracular pronouncements, conclusions, answers from the experts. They don’t want subtle distinctions, or both sides of an issue, or for you to present the problems with the position you are defending. They want to be told, “But...” I responded, “in philosophy and in ethics no one has definitive answers. I am privy to no facts or empirical data which make my positions more solid than others. They stand and fall with the arguments I must defend them.” “In that case,” said the editor, “put them in an appendix at the back of the book so the few people who care can find them.” If this is indeed what people want, Ehrenfeld’s book should sell well.

Some of the holes in Ehrenfeld’s book are filled by Mary Midgley’s Beast and Man: The Roots of Human Nature. This book addresses in a direct way the fundamental metaphysical question raised at the beginning of this review. Is man radically different, and metaphysically separate from the rest of nature? As long as that question is answered in the affirmative, something like Ehrenfeld’s “humanism” is the inevitable result, whether it takes the form of 20th century technological or 4th century Christian contempt for nature. Only a radical change in our moral and metaphysical perspective can provide us with deep grounds for valuing nature and other creatures. Historically, the theories which unify man and nature have been few and lacking in influence in comparison with those which create a bifurcation. After Darwin, and indeed in Darwin’s own work, it appeared that a metaphysics of continuity between man and the rest of the world could be firmly established, and in its wake an ethic of continuity as well. (Ironically, such a metaphysics of continuity can be found in portions of Aristotle, though this thread in Aristotle is far less influential than his postulation of clear-cut natural kinds.) Books such as F.P. Evans’ Evolutional Ethics and Animal Psychology (1938) pressed this point. On the other hand, the traditional metaphysics of human separation and exclusive intrinsic value was also made to fit Darwinism by distorting the notion of survival of the fittest, and by placing man at the “top of the evolutionary ladder,” whatever that means. In this way, man’s ontological and valutational uniqueness was preserved. In the post-Darwinian intellectual world, new metaphysical arguments have emerged which can be used to justify the ancient split between man and animals or man and nature. Such an argument, for example, is the neo-Cartesian equation of reason or even thought with language, and the related claim that language sets man apart, a view most eloquently defended by Noam Chomsky. Another such argument currently in vogue is the view that moral rights and duties are contractual, and that neither nature nor animals are part of the contract.

Midgley’s book is an attempt to show that man does have a nature, i.e., an innate, genetically determined set of predispositions, and that this nature is continuous with that of animals, especially “higher” mammals. Thus one can learn about human behavior and “mind” by studying ethology, even as one can learn about human physiology by studying animals with whom we are evolutionarily continuous. Until very recently, such a position was quite unpopular, since psychology had been thoroughly dominated by blank-slate behaviorism, a truly idiotic but highly influential ideology. (Ironically, Chomsky and Midgley are very close in their emphasis on innateness and their rejection of behaviorism.) Furthermore, the influence of anti-religious existentialism also put the concept of nature as endowment into bad odor, since the existentialists erroneously tied together freedom and blankness.

Midgley shows that far from freedom being in opposition to having a nature, it in fact depends upon it, as does morality. She also shows, in an extremely valuable discussion, that there is nothing wrong with having a nature which is continuous with animals. In fact, animals have gotten extremely bad press in the Western tradition, as symbols of unrestrained appetite, ferocity, and aggression. Midgley takes pains to show that animals are an extremely poor choice as symbols of evil. Man in fact, is infinitely more ferocious, more aggressive and more capable of indiscriminate killing and sadism than animals are.

In other valuable discussions, Midgley debunks the coherence of the concept of an evolutionary ladder, ranking higher and lower organisms. As just indicated, “being at the top” is often used to provide man with a metaphysically unique position compatible with Darwinism. However, from a strict evolutionary point of view, there is no “top,” no “highest,” no “best,” only differential reproduction. As I have argued elsewhere, the only reason man is at the “top” is that he draws up the list. Such a list reflects our valutational biases, rather than giving us an accurate picture of the way things are. For example, if widespread adaptive success is claimed to determine status on the evolutionary ladder, then we must share top rung with the cockroach and the rat. If one claims that intelligence determines status, we may ask why this is so, since intelligence does not guarantee survival under all circumstances. In fact, Ehrenfeld and others would probably claim that too much intelligence may well destroy our species.
Reich, and innumerable others, Ehrenfeld is a cocktail party Jeremiah, with little to offer in terms of solutions. We must unify emotion and reason, he tells us. Emotion can save us from the excesses of reason gone awry. We must turn away from reason. Reason has produced the absurdities he has chronicled. Reason can be used to prove anything—we need to trust emotion. All of which is too sloganistic to refute, save to point out that the same sort of smear campaign can be launched against emotion. After all, emotion gave us Adolf Hitler, the Crusades, and Lawrence Welk.

Style matches content in Ehrenfeld's book. He raves, he rants, he vents his spleen, he mesmerizes. Typically, he doesn't argue or even explain at length or in depth. How does one balance reason and emotion? How does one know that one has reached the end of an end-product analysis? Must humanism necessarily take the form he describes? How does one begin to effect changes in the things he condemns if our entire society is locked into it—economically, educationally, agriculturally, technologically, and as he says, religiously (the "religion of humanism")? In one potentially interesting chapter, Ehrenfeld describes the various utilitarian justifications conservationists can and have mustered for preserving nature. In that chapter, he stresses an obvious point—there is no necessity that human utilitarian objectives will always or often jibe with ecological needs. What we need, he suggests, is an ethic which gives intrinsic value to nature. Such a position must be clarified in 4. This is a significant omission, for if anything can save us from the fate of humanism, this new and valuable approach is dealt with all, even if they are not aware of his argument.

Not long ago, I was discussing the salability of philosophy books with a senior editor at a major New York publisher. People do not want arguments, I was told. They want oracular pronouncements, conclusions, answers from the experts. They don't want subtle distinctions, or both sides of an issue, or for you to present the problems with the position you are defending. They want to be told. "But," I responded, "in philosophy and in ethics no one has definitive answers. I am privy to no facts or empirical data which make my positions more solid than others. They stand and fall with the arguments I muster to defend them." "In that case," said the editor, "put them in an appendix at the back of the book so the few people who care can find them." If this is indeed what people want, Ehrenfeld's book should sell well.

Some of the holes in Ehrenfeld's book are filled by Mary Midgley's Beast and Man: The Roots of Human Nature. This book addresses in a direct way the fundamental metaphysical question raised at the beginning of this review. Is man radically different, and metaphysically separate from the rest of nature? As long as that question is answered in the affirmative, something like Ehrenfeld's "humanism" is the inevitable result; whether it takes the form of 20th century technological or 4th century Christian contempt for nature. Only a radical change in our moral and metaphysical perspective can provide us with deep groundwork for valuing nature and other creatures. Historically, the theories which unify man and nature have been few and lacking in influence in comparison with those which create a bifurcation. After Darwin, and indeed in Darwin's own work, it appeared that a metaphysics of continuity between man and the rest of the world could be firmly established, and in its wake an ethic of continuity as well. (Ironically, such a metaphysics of continuity can be found in portions of Aristotle, though this thread in Aristotle is far less influential than his postulation of clear-cut natural kinds.) Books such as F.P. Evans' Evolutionary Ethics and Animal Psychology pressed this point. On the other hand, the traditional metaphysics of human separation and exclusive intrinsic value was also made to fit Darwinism by distorting the notion of survival of the fittest, and by placing man at the "top of the evolutionary ladder," whatever that means. In this way, man's ontological and valuational uniqueness was preserved. In the post-Darwinian intellectual world, new metaphysical arguments have emerged which can be used to justify the ancient split between man and animals or man and nature. Such an argument, for example, is the neo-Cartesian equation of reason or even thought with language, and the related claim that language sets man apart, a view most eloquently defended by Noam Chomsky. Another such argument currently in vogue is the view that moral rights and duties are contractual, and that neither nature nor animals are part of the contract.

Midgley's book is an attempt to show that man does have a nature, i.e., an innate, genetically determined set of predispositions, and that this nature is continuous with that of animals, especially "higher" mammals. Thus one can learn about human behavior and "mind" by studying ethology, even as one can learn about human physiology by studying animals with whom we are evolutionarily continuous. Until very recently, such a view was quite unpopular, since psychology had been thoroughly dominated by blank-slate behaviorism, a truly idiotic but highly influential ideology. (Ironically, Chomsky and Midgley are very close in their emphasis on innateness and their rejection of behaviorism.) Furthermore, the influence of anti-religious existentialism also put the concept of nature's endowment into bad odors, since the existentialists erroneously tied together freedom and blankness.

Midgley shows that far from freedom being in opposition to having a nature, it in fact depends upon it, as does morality. She also shows, in an extremely valuable discussion, that there is nothing wrong with having a nature which is continuous with animals. In fact, animals have gotten extremely bad press in the Western tradition, as symbols of unrestrained appetite, ferocity, and aggression. Midgley takes pains to show that animals are an extremely poor choice as symbols of evil. Man in fact, is infinitely more ferocious, more aggressive, and more capable of indiscriminate killing and sadism than animals are.

In other valuable discussions, Midgley debunks the coherence of the concept of an evolutionary ladder, ranking higher and lower organisms. As just indicated, "being at the top" is often used to provide man with a metaphysically unique position compatible with Darwinism. However, from a strict evolutionary point of view, there is no "top," no "highest," no "best," only differential reproduction. As I have argued elsewhere, the only reason man is at the "top" is that he draws up the list. Such a list reflects our valuational biases, rather than giving us an accurate picture of the way things are. For example, if widespread adaptive success is claimed to determine status on the evolutionary ladder, then we must share top rung with the cockroach and the rat. If one claims that intelligence determines status, we may ask why this is so, since intelligence does not guarantee survival under all circumstances. In fact, Ehrenfeld and others would probably claim that too much intelligence may well destroy our species.
Correlatively, the question of what distinguishes man from animals is a misleading one, for it ignores the fact that man is an animal, and it further contains a valuational bias. (It really asks, what makes man better than animals. To my knowledge, only humans engage in rape—that is surely not what people are looking for when they ask for distinguishing marks of humans.) When asking the question of what distinguishes man from animals, we must ask which animals. In what is perhaps the best section of the book, Midgley discusses the claim that only humans have language, concepts, reason, culture, private experience. In all of these areas man is continuous with animals. Like Ehrenfeld, she raises the question of the connection between reason and emotion, or between reason and needs, function and nature, and argues much more persuasively than he does for the notion of reason as integration of diverse elements.

In essence, Midgley’s book provides a sound philosophical base for the sort of critique promulgated by Ehrenfeld. She has the right idea—attack the metaphysical basis of the discontinuity thesis. Midgley is far better equipped philosophically than is Ehrenfeld, and has no aversion to long, sustained, dialectical argument. Unfortunately, she is sometimes inclined towards verbosity and neurology, detracts from the power of the book.

More serious is Midgley’s failure to underscore and develop the implications of her attack on the traditional metaphysical bifurcation of man and beast. Her concern is still with understanding man; man’s aggression, man’s altruism, man’s ethics, man’s good life. It is odd that she says little (save in passing) about the implications of her thesis for the moral status and moral treatment of animals (and of nature more generally). It is not enough to attack our moral stance toward nature, as Ehrenfeld does. One must also attack its metaphysical presupposition. But it is not enough to attack the metaphysical presupposition alone, and expect others to draw the moral consequences in the face of the shattered and obsolete metaphysics. A bad metaphysical position is, as Ehrenfeld does, more like a religious position than like one’s false belief that a whale is a fish.

It will not expunge it. One must also attack our moral presupposition alone, and expect others to draw the moral consequences in the face of the shattered and obsolete metaphysics. A bad metaphysical position is, as Ehrenfeld does, more like a religious position than like one’s false belief that a whale is a fish. One can be told that one’s metaphysical or religious position is logically incoherent or the source of bad morality—this will not expunge it. One must replace one’s faith or conceptual scheme with another, else one will find oneself unconsciously relying upon the old. In the case of the split between man and nature, we need to be shown that we can live better in the world when we see ourselves as part of it. In my own work in this area, I have tried to show, as Midgley does, that no metaphysical cleavage can be made between man and animals (Rollin, 1978, Rollin, 1980). But unlike Midgley, I have tried to show how our moral Gestalt must change in the wake of the critique of man’s separation from nature. Our moral concern must be extended to all creatures. All living things must be admitted into the moral arena. All of their interests must be considered in the moral tone of voice. Only when our actual decisions and actions reflect a moral regard for other creatures can we truly be said to have escaped the stranglehold in which the conceptual scheme of human separateness from nature has held us since antiquity.

References


Farm Animal Welfare: Some Opinions

Michael W. Fox

The subject of farm animal welfare has evoked a wide range of responses from those involved in the livestock industry and those concerned about the humaneness of intensive husbandry farming practices. Books have been published on the subject (Harrison, 1964; Mason & Singer, 1980; Dawkins, 1980 and Fox, 1980 and 1981) as well as a large number of articles in professional and popular magazines. Three international symposia dealing with animal rights have been held in the last two years (Lehman, 1980; Miller, 1981; Paterson and Ryder, 1980) and a major European conference dealing with farm animal welfare and involving veterinarians, farmers, animal scientists and animal welfare groups was held in Amsterdam in 1979 (Anim Regul Stud 2(3): 1980).

In the U.K., a governmental Farm Animal Welfare Advisory Council has been established and codes of practice drawn up which have been copied by most of the member countries of the European Economic Community. In the U.S., humane concerns of ‘factory’ farming have been extensively discussed by Frank (1979) and a model draft of protective legislation drawn up. (See Int J Stud Anim Prob 16: 391-395, 1980.) Both the Council for Agricultural Science and Technology and the U.S. Animal Health Association are taking an active interest in the subject. The Institute for the Study of Animal Problems has recently conducted a small survey of veterinarians and animal scientists involved in the livestock industry in the U.S. to determine how they feel about the many husbandry practices that are now being questioned by a growing number of their professional peers in the U.K. and Europe (B.V.A., 1979).

Dr. Fox is Director of the Institute for the Study of Animal Problems, 2100 L St. N.W., Washington, DC 20037.
Comment

B. Rollin

References


Farm Animal Welfare:
Some Opinions

Michael W. Fox

The subject of farm animal welfare has evoked a wide range of responses from those involved in the livestock industry and those concerned about the humaneness of intensive husbandry farming practices. Books have been published on the subject (Harrison, 1964; Mason & Singer, 1980; Dawkins, 1980 and Fox, 1980 and 1981) as well as a large number of articles in professional and popular magazines. Three international symposia dealing with animal rights have been held in the last two years (Lehman, 1980; Miller, 1981; Paterson and Ryder, 1980) and a major European conference dealing with farm animal welfare and involving veterinarians, farmers, animal scientists and animal welfare groups was held in Amsterdam in 1979 (Anim Regul Stud 2(3): 1980).

In the U.K., a governmental Farm Animal Welfare Advisory Council has been established and codes of practice drawn up which have been copied by most of the member countries of the European Economic Community. In the U.S., humane concerns of ‘factory’ farming have been extensively discussed by Frank (1979) and a model draft of protective legislation drawn up. [See Int J Stud Anim Prob 1(6): 391-395, 1980.] Both the Council for Agricultural Science and Technology and the U.S. Animal Health Association are taking an active interest in the subject. The Institute for the Study of Animal Problems has recently conducted a small survey of veterinarians and animal scientists involved in the livestock industry in the U.S. to determine how they feel about the many husbandry practices that are now being questioned by a growing number of their professional peers in the U.K. and Europe (B.V.A., 1979).

Dr. Fox is Director of the Institute for the Study of Animal Problems, 2100 L St., N.W., Washington, DC 20037.