

# HOW CLEVER WAS THE OLD FOX?

LAWRENCE FINSEN

University of Redlands

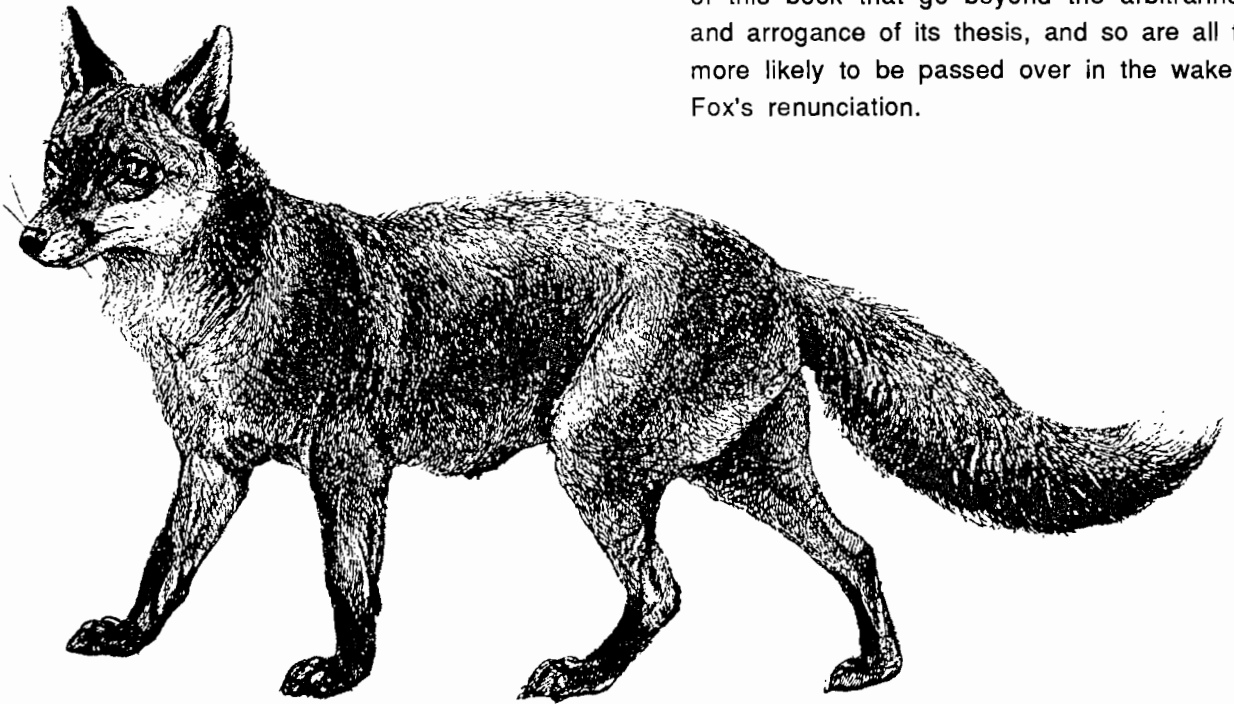
SUSAN FINSEN

California State University  
San Bernardino



Michael A. Fox has recently recanted the views he published in The Case for Animal Experimentation. His admissions that the thesis of his book was arbitrary and the view expressed arrogant are as eloquent and moving

maintain that the old Fox is wiser than the new one, as there are those who prefer the Wittgenstein of the Tractatus to the Wittgenstein of the Philosophical Investigations. Additionally, there are certain lessons to be learned from careful examination of this book that go beyond the arbitrariness and arrogance of its thesis, and so are all the more likely to be passed over in the wake of Fox's renunciation.



Jim Harter, Animals: 1419  
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New York: Dover, 1979

as they are unusual. Why then, if the author has renounced the position of the book, would a discussion of it be of interest? The most obvious reason is that the book will stand on its own, regardless of the author's current position, to do whatever good or ill books can do. There will inevitably be those who



## PHILOSOPHY

How can even those who disagree with Fox's defense of research learn from this book? Fox was clearly a spokesperson for the research community, and he listened well to their arguments. By reading this book, it is possible to familiarize oneself with the concerns, attitudes and defensive moves of the research community, and thus prepare for discussion with researchers and their sympathizers. More specifically, it is possible to understand the kind of distorted image of animal rights arguments and concepts the opposition presents. It's also important to understand how scientists view scientific inquiry and their reasons for conducting research.

It is often difficult to see that common sense does not make sense until someone comes along and tries to defend it. Perhaps the greatest opportunity provided by this book is the opportunity to see the received view about animals in the refreshing light provided by its attempted defense. An important place to begin is on the alleged virtue of finding the middle ground, of avoiding extremes. Fox aims to provide a reasonable defense of "traditional wisdom" on the moral status of animals: the "moderate" position that nonhuman animals, while certainly not full members of the moral community, do have interests that should be considered. This philosophical stance leads, in the end, to a defense of current scientific uses of animals with few caveats. In spelling out the rationale behind traditional wisdom Fox inadvertently lays bare the shaky foundations of moderation. For lack of an extant term, we dub this preference for the middle ground the "fallacy of *veritas in media*." It is Fox's own analysis of science and his attempt to spell out what a moderate can say about the wrongness of cruelty that lead us to see why moderation isn't a viable position as applied to animal experimentation.

The Case for Animal Experimentation can usefully be divided into two sections: in the first part of the book Fox looks at issues preparatory to thinking about the experimental use of animals: he focuses on our

responsibilities to animals, including a consideration of common fallacies in thinking about animals; he attempts to set the record straight about animals from an evolutionary perspective, and he offers a philosophical discussion of the moral status of animals for which the previous two chapters presumably prepared us. The second half of the book looks specifically at scientific uses of animals, considering examples of some disputed research in greater detail than these are usually presented, a discussion of the nature of scientific inquiry and the appropriate place of animals within that framework, and a consideration of the ethical restraint placed on researchers by the familiar (and much criticized) injunction to avoid inflicting unnecessary suffering. Fox concludes the book by making a number of recommendations which try to accommodate some concerns relating to laboratory abuse of animals.

#### CLEARING THE AIR

Fox attempts to set the background of the moral issues by discussing irrational attitudes toward animals---an air-clearing effort, so to speak. Numerous irrationalities of his opposition are identified, from the expression of approval of violence against researchers to ignoring the pressing needs of human suffering in favor of that of animals. One could quibble with the details of his account of such irrationalities, such as the unsupported claim that campaigns on behalf of children go starving while the coffers of animals are bursting, but the underlying issue here is more significant than the factual misinformation provided. For to make an issue of this alleged disparity as an expression of irrational attitudes over these issues simply begs the question, assuming without argument that the only rational approach is to place all concerns regarding humans over those concerning animals. Here Fox assumes rather immoderately that any concern about human ills is more significant than that regarding animals, no matter what the nature of the ill is. And beyond this prejudice, the choice is posed as a dilemma---a false dilemma we

hasten to add---that one must either spend one's time, money, energy and anxiety over humans or over animals. Needless to say the list of those who have succeeded at keeping their eyes on both is not limited to Henry Salt and Mohatma Gandhi.

### THE "EVOLUTIONARY" PERSPECTIVE

The subtitle of Fox's book is "An Evolutionary and Ethical Perspective." This subtitle naturally would lead one to believe that the perspective on the human species and its relation to other animals offered by Evolutionary Theory is an important aspect of the book. Chapter Two, entitled, "An Evolutionary Perspective on Humans and Animals," offers something quite different. For here we find Fox arguing *against* the Darwinian view of the continuity of Homo sapiens and other species, and for the view that humans are unique. Specifically, Fox distinguishes three views:

"(1) that humans are totally unique; (2) that humans possess characteristics that are unique, but only in superficial and insignificant ways (unique in degree perhaps, but not in kind); and (3) that although not totally unique, humans are still different from all other animals in significant respects (they possess characteristics that are different in kind, not just in degree). [32]

Fox quickly dissociates himself from the first position, which is now associated with "creationism" and "thoroughly outmoded and deservingly discredited." The second view he quite rightly associates with Charles Darwin, who, as he points out, viewed the difference between the mental capacities of humans and other animals to be a difference of degree and not of kind. The third is his own view. It would, in our view, have been more accurate to subtitle the book, "A Rejoinder to the Evolutionary Perspective." For, the essentialist notion of difference *in kind* is an Aristotelian notion which is fundamentally at odds with the evolutionary perspective. For Darwin, and for modern evolutionists as well,

the notion of species difference is a highly pragmatic notion, like the notion of variety. Fox must think that by detailing the impressive genetic and behavioral commonalities between human beings and other species, and by admitting that Evolutionary Theory is undoubtedly true, he is entitled to claim that he has an "evolutionary perspective." But even the title of the section in which he discusses these issues, "Similarities Between Animals and Homo Sapiens," belies the fundamental insight of Evolutionary Theory regarding the human species: namely, *we are animals*.

It is clear that Fox needs the notion of difference *in kind* to justify the difference *in kind* of moral considerability offered for Homo sapiens over all other species. He does not wish to rest this difference upon any one characteristic but to discuss a host of characteristics, including a highly developed brain, a precision grip, sophisticated language usage, ability to critically reflect upon oneself, etc. Possession of any one of these characteristics by itself may only represent a difference of degree compared to one who lacks them, but when they are all combined the difference becomes one of kind. Ultimately, this is because these characteristics combine to make humans free in a way that other organisms are not: humans are agents capable of fully self-conscious, voluntary and deliberate action. [45] This autonomy ultimately becomes the focus of Fox's claim that humans are truly unique, and that their uniqueness matters morally.

Let us leave aside for the moment the questions whether autonomy even if it were a unique feature of our species, would be the sort of difference needed by Fox to motivate the difference in moral status he advocates. What are his grounds for claiming that humans are uniquely autonomous? While Fox mentions a variety of characteristics as important in making humans autonomous, he rests most weight on human linguistic ability. [42] He quotes Stephen Walker approvingly: "Of all the discontinuities between man and animals that could be quoted, . . . the

evergreen candidate for the fundamental discontinuity. . . is language. . . .It is still reasonable to say that animals do not think as we do, when we think in words, and that in so far as we are only conscious when we think in words, they lack conscious awareness." [42]

It is remarkable to find such a Cartesian view of consciousness being promoted in the 20th Century, but Fox doesn't press this absurd idea, merely winking in its general direction. What he does imply is that linguistic ability is central in producing autonomy and is also the best criterion for its presence. He says,

"When I speak of an autonomous being I mean one that is critically self-aware and has the capacity to manipulate concepts in complex ways, use a sophisticated language, reflect, plan, deliberate, choose, and accept responsibility for acting. In other words, an autonomous being can act freely, choose and decide rationally in the fullest sense, and engage in self-making or self-realizing activities." [45]

Of course, if you include in the *meaning* of autonomy sophisticated linguistic ability, you have an easy time showing that humans are uniquely autonomous. Other evidence of self-awareness gets ruled out by fiat. Fox says, "saying that human beings are critically self-aware does not just mean that, apeline, they can recognize and respond to a mirror image of themselves. . ." [45]

But since it is autonomy which is morally relevant according to Fox, and linguistic ability, it is a fair question to ask whether other animals might have some degree of autonomy as the result of their cognitive sophistication, in spite of their lack of sophistication in the communication area. Developments in cognitive psychology make this question very controversial and difficult to answer. Jerry Fodor has argued that the learning ability of many organisms necessitates their having internal representational systems which resemble, in many ways, the structure of human natural

language.<sup>2</sup> The fact that these systems are not deployed as communication systems does not detract from the fact that they are used in discrimination and concept learning and in the confirming and disconfirming of various hypotheses. For example, animals such as rats, dogs, cats and pigeons are capable of learning concepts which have no simple physical correlates, including relations such as 'larger than.' Thus, they cannot, in responding correctly, be relying on simple stimulus discrimination learning but must have the ability to abstract and represent the information to themselves. For this and other reasons which it would take us too far afield to discuss here, many psychologists find the postulation of a "language of thought" for animals highly plausible and useful.<sup>3</sup>

But given that animals have such representational capacity, it is not possible to rule out that some of them have a rudimentary self-concept, nor do psychologists find it odd to study choice behavior in animals. Furthermore, psychologists regularly study memory in various species, and goal directed behavior. Some philosophers (such as R. G. Frey<sup>4</sup>) balk at talking about beliefs and desires in animals, but it is part of Fodor's point that talk about concept learning, memories, and goal directed behavior requires the postulation of a representational system, and here we have the essential elements of belief and of intention more generally. Namely we have a representation of the world in a symbolic system together with an attitude toward that representation. Perhaps other animals do not think "as we do," in the words of a natural language, but if they do have goals, memories, beliefs and desires, all mediated by an internal representational system, then it is not all clear that they are different from us *in kind* in respect of these characteristics. Thus, autonomy itself may be a matter of degree. It seems most likely that other animals possess the abilities "[to] choose and decide rationally, and engage in self-making or self-realizing activities" to various degrees, just as humans manifest these highly rational characteristics

only some of the time, and for some of us, to a very limited degree. Thus, it is not clear that autonomy is a trait of the all or nothing variety, and as a result it isn't very well suited to marking the difference in kind which Fox needs to motivate his double standard for humans and other species.

Even supposing autonomy were in some way established as a uniquely human characteristic, its moral significance needs examining. For, as Mary Midgely has pointed out, simply establishing that a characteristic is unique does not show that its uniqueness is morally significant.<sup>5</sup> Fox does not make this mistake, however. He argues that autonomy is morally important because it is what allows humans to enter into a moral community as agents and valuers, and it is only such members of a moral community who can truly possess value and rights. In order to lay the foundation of his denial of value to animals, Fox provides an account of the nature of value in general.

#### VALUE AND VALUERS

Fox asserts that nature has no value in and of itself apart from that value assigned to it by valuers---human beings. Let us call this the Dependent Value Thesis (DVT). It comes to this: nothing has value in and of itself apart from being valued by a valuer. Thus, value is always a relation between the valued object and a valuer. From this claim, Fox concludes that the position that animals are inherently valuable is literally unintelligible. There are serious problems with his defense of the DVT, however.

First, the argument Fox makes for this position is primarily negative: he argues that certain attempts to justify attributing independent value to nature fail. Specifically, he considers G. E. Moore's famous thought experiment in which we are asked to consider two possible universes, one containing whatever the reader holds beautiful, the other lacking this, holding all else equal including the absence of any human beings in either to enjoy or miss the

relevant features. Moore's intuition is that the beautiful world is preferable to the filthy one, that could we do it, we ought to produce it, and that the universe would be a better place for it, despite the fact that no one, human or otherwise, would profit from its existence or suffer its absence. Thus, the features that are valuable in that beautiful world are valuable independently of their use or enjoyment by humans or other conscious beings. Fox responds to this argument exactly as Bishop Berkeley responded centuries earlier to the analogous view about the independent existence of ordinary physical objects: what the arguer of this thought experiment fails to recognize is that he is the observer/valuer in this situation. The attempt to conceive of something existing unthought of is an impossibility, for the one conceiving is himself thinking of that thing; analogously, the attempt to think of the value of something existing independently of a valuer is an impossibility, for the one conceiving of the value is himself a valuer.

Fox's response to Moore seems appropriate.

One might conclude from it that Moore's method is doomed to failure if its point is to identify values that exist independently of our judgment that they are valuable, for we must make the judgment that such and such is valuable in order to perform the experiment. But it does not follow from this negative argument, of course, that values are dependent in the sense preferred by Fox. To establish that would require more than a refutation of Moore's attempt to show their independence. In fact, the question of whether values are independent of the judgment or acts of valuers is not so easily resolved as Fox suggests. For it is not obviously unintelligible to hold that values exist, and that only the recognition of values depends on the existence of certain kinds of beings, just as one might argue that abstract entities (e. g., numbers) exist but won't have much impact on the thought of those creatures incapable of conceiving them.

Second, and most importantly, if we grant Fox

the Dependent Value Thesis, the conclusion he seeks will still not follow, even supposing as Fox does, that only human beings are capable of being valuers. From the fact that value is relative to valuers in this sense, it does not follow that animals or nature cannot be regarded by valuers as having a value independently of some particular relation to valuers, such as their usefulness or their similarity to us, or the enjoyment we achieve in contemplating them. All that is required is that valuers ascribe value to that kind of object. The appropriateness of placing human life as a value over and above all else (i. e., anthropocentrism) simply doesn't follow. Fox makes a fundamental logical error in inferring from the claim that values exist only insofar as valuers judge them to be so to the claim that only valuers (and their kind) can be valuable and all other values hinge in some sense on our valuing ourselves.

Perhaps a consideration of this kind of anthropocentrism would benefit from a consideration of the points commonly made regarding the view known as psychological egoism. A similar move is made at times by proponents of psychological egoism, despite the fact that it was exposed for the error that it is by Bishop Butler some 250 years ago<sup>6</sup>: the egoist sometimes argues that from the fact that I pursue my desires because the achievement of them satisfies me, I can conclude that what I always really seek is just this satisfaction. Thus, all desire, and consequently all action is aimed at prompting my self-interest. But from the fact that I am the one desiring something, and thus the one who will achieve the satisfaction or frustration of that desire, nothing follows about the nature of the object of that desire: it need not be myself at all. In fact, as Butler (and many others) have pointed out, many of the objects that give satisfaction are objects that can only be fairly described as concerning something other than oneself, for example, the well-being of another, and would provide no satisfaction if that were not the case. Analogously, the fact that human beings are

valuers does not make human life the only valuable thing, or even the one central value to which all else must be related to be valuable.

So, as we have seen, Fox does not establish that the very idea of animals or nature having value independently of a human decision to make it so is unintelligible.

### MORAL COMMUNITY

While the Dependent Value Thesis provided Fox with a metaethical argument against animal rights, the central argument against the claim that animals are members of the moral community is as follows: (1) A moral community is a "group whose members share certain characteristics and whose members are or consider themselves to be bound to observe certain rules of conduct in relation to one another because of their mutual likeness." [49] (2) Clearly only those beings capable of functioning within a moral community can be members of that community. (3) To function here means to possess these characteristics, to recognize them in others, to recognize one's likeness to others, and as a result to consider oneself bound by rules of conduct. (4) Only autonomous beings are capable of these things. (5) But only human beings (among the known species) are fully autonomous in this sense. (6) Moral rights exist only in the moral community. (7) Since no animal is a member of a moral community, (8) no animal is a bearer of moral rights.

The argument looks suspiciously like a definitional stop: the moral community is simply defined, without justification, as consisting of moral agents. Fox's argument does not touch those, such as Steve Sapontzis,<sup>7</sup> who maintain that animals enjoy some degree of moral agency even if they are not fully autonomous in Fox's sense. Additionally, very few of those who wish to argue for membership in the moral community of nonhumans would also maintain that animals are moral agents, so this definition is clearly not one Fox has a right to without argument.



None is presented.

One important test of such an argument excluding animals concerns what can be said in response to the by now classic problem of marginal cases. In a nutshell, the problem is that invoking such characteristics as Fox has to argue that there is a gulf between animals and humans sufficient to bear the weight of a denial of rights for animals seems to imply that various kinds of "deficient" or "marginal" humans are also excluded from being rights-bearers---a conclusion with which most would not be comfortable. Fox is also uncomfortable

with this implication, and so he works to show that it does not really follow from the exclusion of animals from the moral community that small infants, the severely mentally retarded, senile, autistic, badly brain-damaged and comatose individuals are also excluded. Unfortunately, it is easier to assert that it isn't so than it is to show convincingly that our intuitions that it shouldn't be are supported by the moral theory being proposed. Fox's response---that we are justified in partiality to our own species---utterly fails to address the challenge.

The arguments in favor of this species partialism appear to be as follows: (1) since natural emotional responses and feelings of kinship are allowed to count as factors in shaping our assessment of the moral status of other species, then such feelings may legitimately count in assessing the moral status of members of our own species. [60] Unfortunately, Fox nowhere argues that these "natural emotional responses" or "feelings of kinship" are morally relevant factors to count with regard to animals---certainly they have not been allowed to count in the same way that he is now proposing to let them count for "deficient" humans. For he has just offered an argument that denies rights to animals, despite such kinship or emotion. This will not, therefore, explain why we are justified in extending rights to humans who fall outside the criterion that excludes animals. (2) "In deciding how we ought to look on all these

classes of individuals, a reasonable position to take would seem to be that here membership in our own species ought to count for something, in the sense in which a charitable attitude toward those less developed or less fortunate than ourselves, for whom we feel some especially close kinship, is particularly compelling to a morally mature person." [60] At the risk of exposing ourselves as morally immature persons, we simply do not see how

rights are obtained by charity. Rights, after all, are reserved on Fox's view for those individuals who need them to protect their self-development as a being of that kind. [53] But, many of the "deficient" individuals being considered are incapable of this kind of self-development. On Fox's view, rights cannot be valuable for them. Why, then, is extending rights to them an act of charity, if it doesn't do the recipient that much good? If it does help them after all, then this should give us some pause in thinking through Fox's discussion of the nature and function of rights and, of course, the exclusion of animals from this prized position.

In sum, Fox's position on marginal cases begs the question. He thus fails to show why the moral community should consist of all and only *Homo sapiens* and our fully autonomous cousins, if any.

#### WHITHER CRUELTY?

Being committed to denying that any nonhuman can have rights, Fox must find another foundation for the moral limits on our use of animals, for, as a moderate he certainly believes there must be some limits. In recent history, such limits have been articulated in terms of the avoidance of cruelty and unnecessary suffering and the desirability of humaneness. Fox falls squarely within this traditional framework. He raises the issue with the following argument: "If moral obligations are contingent on rights and their possession by certain beings, then since animals have no rights, humans cannot have correlative obligations toward them. It

follows that we have no duty in the strict moral sense to prevent animal suffering." [70] If this argument is sound, the problem becomes rather pressing for the moderate: what is the source of the wrongness of cruelty to animals?

Fox suggests five reasons for thinking cruelty wrong. None of these attributes any kind of direct obligation to the victim of that cruelty, including, of course, a right not to be harmed. While the list is extensive (it includes empathy, evolutionary continuity, ecological awareness, the demeaningness of cruelty, and self interest), Fox does not provide a convincing case that these reasons are adequate individually or collectively. Most of these turn out not to be reasons for the wrongness of cruelty at all but, rather, historical and descriptive claims about why we happen to react with concern to the suffering of members of other species.

With respect to empathy, the closest Fox comes to explaining why cruelty is wrong comes in his statement that, despite the extraordinary difficulty of knowing what it is like to be a member of another species, "suffering in animals is often easily recognized by obvious signs such as cries, grimaces, avoidance and defensive behavior, and the like and does not require unusual moral sensitivity to respond." [71] Perhaps it does not require unusual sensitivity to be moved by the suffering of others, including those in another species, but the fact that some of us (though perhaps not those who are cruel?) do empathize with animals does not explain why it would be morally wrong to overrule those feelings, or to lack them altogether. Again, when discussing the evolutionary relatedness of Homo sapiens and other species, he states, "the awareness of evolutionary continuity should engender in us an enhanced sensitivity toward other species--their resemblance to us, their needs, and their vulnerability." [72] Again, Fox seems to have lost sight of the question of how such declarations can explain the wrongness of cruelty.

When Fox turns to the idea of cruelty as

demeaning, he offers some insights worth noting. Sometimes the demeaningness of cruelty is taken as the causal claim that cruelty to animals leads to bad character, and thus to a greater likelihood that one's conspecifics will be mistreated. This is certainly an idea with a history: one finds it articulated in Kant's Lectures on Ethics, and Kant himself refers to a source as early as the mid-18th century (the engravings of William Hogarth).<sup>8</sup> Despite its pedigree, rarely is evidence provided to show that this bit of traditional wisdom is in fact true, and Fox does a good job exploring this failing. He suggests instead that cruelty to animals and later cruelty to humans may both be effects of the same cause (such as an impoverished childhood environment), rather than the one being a causal condition of the other. So when Fox states that cruelty is demeaning, he does not mean that it leads to mistreating humans. Rather, he means that it is itself beneath human dignity: in acting cruelly one gives expression to the worst side of oneself.

But we ask why cruelty is beneath human dignity, or better, why this side of oneself is "worst," Fox's answer is that one ignores what is morally relevant to his act: "he lets himself be insensitive, unmindful of morally relevant similarities between himself and the animal(s) concerned. . ." [77] This seems perilously close to admitting that cruelty is wrong because of the wrongness of harming the animal itself. What are these similarities morally relevant to, if not the judgment that the harm inflicted is morally relevant to the wrongness of the act.

In the end, Fox's position in The Case for Animal Experimentation is that animals enjoy an ambiguous moral status: they have interests that ought to be considered, but their interests are not on a moral par with the interests of humans, as they are not rights-bearers. They are not full members of the moral community, but what we do to them is not completely morally indifferent. Nevertheless, just *why* what we do to



animals is not indifferent is never completely clear on Fox's account. It is one thing to say that cruelty is a vice, and quite another to explain its viciousness without attributing value to the victim and also without entertaining a causal claim about its effects on our dealings with those beings that do have value. Unsuspecting readers are likely to allow this unintelligible middle ground because it gives expression to the comfortable platitude that cruelty to animals is wrong.

Fox's general arguments in the first half of the book do not succeed, then, in providing the solid middle ground he seeks. For, on the one hand, he fails to show convincingly why other animals are so different from humans that they deserve exclusion from the moral community of rights holders. On the other hand, even if we were to accept Fox's arguments for excluding them, he provides no convincing reasons why we should worry about cruelty to animals. It is no wonder Fox describes the moral position he has carved out for animals as "ambiguous." Just how ambiguous this position is becomes clear when Fox turns his attention specifically to the uses of animals in research.

#### IN THE LABORATORY

The first task Fox sets himself when he turns to experimentation is that of putting animal research in context. What this means is that Fox will show us, by adding in the details, rationale and benefits of various experiments, that they are really not as bad as their detractors in the animal welfare community would have us believe. Thus, he takes on some of the most notorious research, such as Harlow's experiments on social isolation in infant monkeys, and Seligman's learned helplessness research. What will count as a vindication, on Fox's terms? He cautions against overly simple formulae for determining whether an experiment is justified but does offer a principle of proportionality: the actual or potential benefits must be directly proportional to the amount of suffering the experiment entails. In the case of very stressful experiments, such as Harlow's, the

benefits must be "considerably in excess" of the harm caused. [114] On Fox's own arguments this criterion is entirely unworkable. He argues in Chapter 5 it is often impossible to determine in advance of performing an experiment whether that experiment will reap benefits, and many important discoveries have been made entirely serendipitously. [139] In fact, this inability to predict the value of research, and the consequent need for basic research in science, is one of the more important points Fox makes in the entire book. But it makes any *advance* attempt to weigh the importance of research against amount of suffering induced impossible. Yet the proportionality criterion must be used in advance if it is to shed any light. Furthermore, virtually any research which is well-conceived and of interest to the scientific community can pass his test, since it can always be argued that such research may eventually have some applications. Thus, Fox's criterion is inconsistent with his own correct analysis of the nature of science.

Even assuming we could measure benefits in advance, and that we knew how to weigh benefits against amount of suffering induced by an experiment, the proportionality criterion Fox employs entirely ignores the obvious questions of whether there were alternatives to the research he is attempting to vindicate and whether the research does reliably generalize to humans. It may be worth considering just one example of research which Fox attempts to justify to see how crucial these questions are. In the case of Harlow's maternal deprivation experiments, there was a variety of clinical data available on the effects of maternal deprivation in humans before Harlow conducted his experiments. For example, Wayne Dennis made many clinical observations in institutions during the 1940s, and he even carried out an experiment on social deprivation in human infants by rearing two infants in isolation! In fact, there is a wealth of evidence from the 40s through the 60s, documenting the effects of maternal deprivation, often under well controlled conditions in orphanages.

Furthermore, this data was very likely superior to that obtained by the Harlows, since there are serious doubts about the generalizability of the results of such studies from one species to another. Ruppenthal and Fahrenbrech found results for rhesus monkeys and pigtail macaques to be importantly different.<sup>11</sup>

What is ironic and unfortunate about Fox's analysis of this and other examples of painful research is that while he claims that a more detailed understanding of the surrounding context will vindicate the experiments, he has not dug deeply enough into the surrounding context to answer or even to raise the crucial questions of alternatives and generalizability. Thus, Fox undermines his claim to being an objective and independent inquirer regarding such experiments. This is revealed quite clearly in his glowing reports of research procedures which he was allowed to observe and which he describes as "exemplary from both aseptic and humane viewpoints." [122] From his personal observations of animal experiments, Fox concludes that mistreatment of animals is anomalous. He uncritically accepts the assurances of researchers, and it never seems to occur to him that there might be any bias in the cases he observed as a function of his very presence. Nor does it occur to him to raise obvious questions regarding the reassurances he is offered. For example, Fox describes the burn research being conducted upon pigs at Toronto's Hospital for Sick Children. He is reassured that the third degree burns inflicted upon the animals are painless, since nerve endings in the burn area are destroyed. [119] But what about other sources of suffering such an experiment produces, such as severe infection and fever, pain associated with the removal of skin for grafting, and stress due to immobilization? Apparently it didn't occur to Fox to ask these questions.

In spite of all these difficulties, Fox's discussion of the nature of scientific inquiry is quite good. As already noted, Fox points out

the impossibility of predicting the applications and benefits of various experiments and research programs, and thus the inappropriateness of demands that research on animals be restricted to only those which are clearly of immediate and life-saving importance. This type of restriction is indeed impossible, and those who wish merely to reduce the number of experiments exploiting animals along these lines should take note. Furthermore, Fox is quite right in pointing out the need, in scientific research, for a certain amount of replication. [145] It is important to distinguish a redundant experiment (done in a teaching context or because the researcher does not realize that the experiment has already been performed) from a legitimate attempt to replicate an experiment. If the outcome of an experiment is unexpected, appearing to imply the need to change some assumptions which are well established, replication may be especially important. Finally, Fox correctly points out that the statistical nature of biological and psychological "laws" and the amount of variability present in much of these areas of inquiry sometimes require a large number of experimental subjects be used. So certain requests for reductions in numbers of animals or in replication of experiments could result in making the research truly pointless. Nevertheless, Fox does not provide any examples of critics of animal research actually making these sorts of mistakes; he merely accuses "critics of animal research of generally misunderstanding" these points. In The Case for Animal Experimentation Fox has a habit of generalizing about the mistakes and foibles of the animal rights community without reference to specific examples.

An examination of Fox's own suggestions regarding reform reveals the fundamental difficulty with the cost/benefit approach to reform. Is the testing of cosmetics a trivial enough benefit to be overruled by the serious degree of suffering it induces? Even here Fox is equivocal and appears to view testing as justified, at least until alternatives can be

found. In response to the argument that animals should not be sacrificed just to protect people from inessentials like cosmetics, Fox quotes the following passage with approval:

Antivivisectionists sometimes assert that animals should not be "made to pay" for human "sins". . . But we live in a deterministic world, and the concept of "retribution" is not appropriate. Human life is more important to the culture than animal life is, regardless of the conditions that cause humans to engage in behavior that is dangerous to themselves. [183]

It seems that in here endorsing the "deterministic world" Fox has conveniently forgotten that autonomy---i. e., human freedom---was to be the distinguishing feature setting humans apart from other animals. But what is even more revealing here is Fox's willingness to allow that human needs, even artificial, detrimental desires, can expand to overrule the most fundamental interests of animals. We must ask what would be an example of human need so trivial, and animal suffering so great, that it simply could not be justified? In examining Fox's suggestions for reform, it is difficult to answer this question, for phrases such as "reasonable expectation that such studies will contribute significantly" and ". . . experimental animals are not to be subjected to unnecessary pain or distress" [208] are highly elastic. What counts as reasonable? Necessary? And necessary for what?

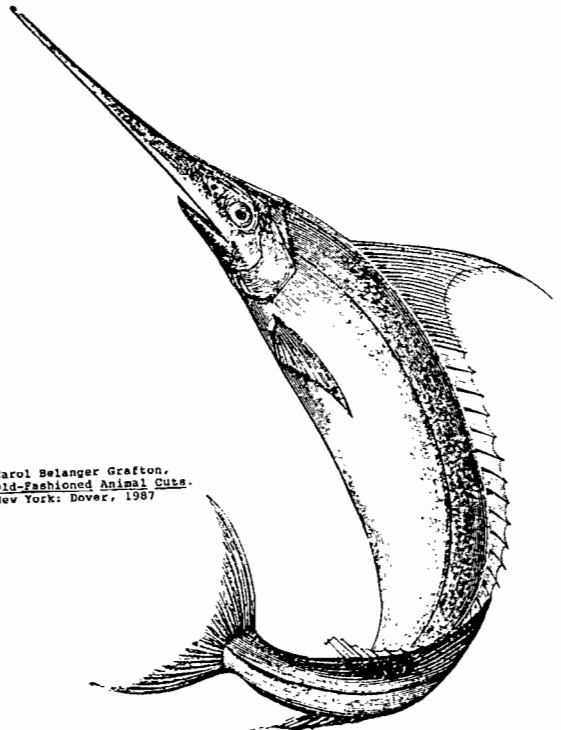
Fox's insightful discussion of science reveals the extreme difficulties confronting attempts to reform animal research and reduce the numbers of animals used. This quagmire of difficulties makes principled approaches more workable than attempts to balance interests on a case by case basis. This suggests either abolition of animal research or absolute limitations on what can be done, along the lines of the Nuremberg guidelines. This is one important lesson animal welfarists can learn from a careful reading of Fox: moderate

positions may in fact be less practical and workable than more extreme reforms designed to make the rights of animal subjects the bottom line in considering what can and cannot be done in research.

In fairness, Fox does seek reforms which would improve the conditions of laboratory animals, such as prohibiting multiple survival surgery as a classroom instruction procedure. He also promotes education and dialogue, and the use of ethics review boards.<sup>11</sup> While some of the reforms he suggests are commendable ( and some are already in place), Fox's recommendations are for the most part as ambiguous as the moral perspective which stands behind them.

#### CONCLUSION

The Case for Animal Experimentation is a book that will infuriate animal rights advocates and please some who think the case for animals' rights weak and a diversion from more important matters. Among other things, pro-animal activists such as the ALF are villified on these pages for violent acts, while little attention is paid to the good they have done--- e. g., in revealing for public scrutiny the reality of laboratory life in such places as the



University of Pennsylvania head injury lab. Beyond this, the author sets himself up as providing a rational assessment of the moral status of animals and the implications this has for scientific research employing them, an assessment in opposition to the often irrational and emotional pro-animal literature. The fallacious arguments and appeals in this book, of which there are many, will be all the more infuriating to those who clearly are not its intended audience. And the oft-repeated chorus that his opponents' view is clouded by a failure to think clearly, consistently, unemotionally, and objectively will seem all the more ironic to those familiar with Fox's subsequent renunciation of the major thesis of the book as itself arbitrary. If it achieves nothing else, animal activists can learn from this book how offputting irrational appeals are to those not already convinced of the author's position (and to those careful thinkers who are in agreement).

But there is more to be learned from a consideration of Fox's book, for after all, the discussions resulting from its publication led Fox himself to change his views. Fox's courageous turnaround should give us hope for the possibility of nonviolent and rational change in the direction of greater respect for animals through such dialogue.

#### Notes

<sup>1</sup> Michael Allen Fox, The Case for Animal Experimentation: An Evolutionary and Ethical Perspective (Berkeley: University of California Press, 1986); Fox's retraction appears in "Animal Experimentation: A Philosopher's Changing Views," in Between the Species, v. 3, no. 2 (Spring, 1987), 55ff.

<sup>2</sup> Jerry A. Fodor, The Language of Thought (Cambridge: Harvard University Press, 1975), 68.

<sup>3</sup> John Anderson and Gordon Bower, Human Associative Memory (New York: Wiley & Sons, 1973).

<sup>4</sup> R. G. Frey, Interests and Rights: The Case Against Animals (Oxford Clarendon Press, 1980), 89-91.

<sup>5</sup> Mary Midgley, Man and Beast: The Roots of Human Nature (Ithaca: Cornell University Press, 1978), 203-209.

<sup>6</sup> Joseph Butler, Fifteen Sermons Preached at the Rolls Chapel (London), Sermon XI; reprinted in Paul Taylor, ed., Problems of Moral Philosophy (Belmont, Ca.: Dickenson Publishing Co., 1967), 117-129.

<sup>7</sup> S. F. Sapontzis, Morals, Reason and Animals (Philadelphia: Temple University Press, 1987).

<sup>8</sup> cf. Lawrence Finsen, "His Heart Exposed to Prying Eyes, to Pity Has No Claim: Reflections on Hogarth and the Nature of Cruelty," Between the Species, v. 2, no. 1 (Winter, 1986), 12-18.

<sup>9</sup> Wayne Dennis and M. G. Dennis, "Development Under Controlled Environmental Conditions," in Dennis, ed., Readings in Child Psychology (Englewood Cliffs, N. J.: Prentice-Hall, 1951), 104-131.

<sup>10</sup> Michael Rutter, Maternal Deprivation (Penguin, 1972).

<sup>11</sup> Ruppenthal and Fahrenbrech, "The Effects of Total Social Isolation Rearing on Behavior of Rhesus and Pigtail Macaques," in R. Walsh and W. Greenough, eds., Environments as Therapy for Brain Dysfunction (N.Y.: Plenum Press, 1976).

<sup>12</sup> Whether the use of ethics review boards represents real progress on behalf of animals is taken up in Lawrence Finsen, "Institutional Animal Care & Use Committees: A New Set of Clothes for the Emperor?" in The Journal of Medicine and Philosophy, forthcoming.