A. INTRODUCTION

For more than one hundred years the debate over the use of animals in research has involved considerable passion and, in general, more heat than light. Animal activists are outraged by the deliberate infliction of harm on sentient animals and the perceived lack of concern of scientists. Scientists, arguing that they are doing noble work that might someday benefit human-kind, are equally outraged at being accused of callous indifference toward laboratory animal pain and distress and often consider animal activists to be misanthropic, antiscience fanatics.

Given the unflattering caricatures of their opponents in the controversy, it is perhaps not surprising that the debate over animal research is often so unproductive. In the previous nine chapters, various laboratory animal use issues were described and discussed. This chapter will examine how the controversy is waged and how the various elements attempt to influence public policy and popular support.

B. TACTICS AND STRATEGIES

1. THE ANIMAL PROTECTION MOVEMENT

In the past twenty years, the animal movement has benefited greatly from the influx of new employees and volunteers with a wide range of professional skills and ideas. For example, Peter Lovenheim, a young lawyer with an interest in animal issues, joined the Humane Society of the U.S. (HSUS) in the early 1980s as their contact with the regulatory agencies. After a few years at HSUS, he left to pursue other interests but remained interested in the animal cause. He started to explore the use of stockholder resolutions to pressure corporations to pay more attention to animal issues.
"Our antivivisection friends have now been at work in Europe some twenty years and in America some ten years. What have they accomplished? In Continental Europe there has been an enormous increase of vivisection, and, so far as we can learn, not a single case ever prevented. In America the same. In England, where some laws have been enacted, an enormous increase of vivisection...

The world's history shows that very little can be gained by denouncing those who, without criminal intent, differ with us in view of right. Is there not a better way? We think there is. We believe there are lots of good and humane men in the medical profession who, if convinced, will go as far as anyone to prevent unnecessary cruelty."

(George Angell, 1891)

His first target was a Connecticut company that, among many other business interests, imported paté de foie gras into the United States. The company denied him access to their stockholders, arguing that their paté import business was such a minor part of their overall business activities that a stockholder resolution was inappropriate and outside SEC guidelines for such action. Lovenheim took the matter up with the SEC and eventually won his case. In the last few years, he has helped a variety of animal groups place stockholder resolutions on corporate annual meeting agendas.

In the legislative arena, animal groups have also developed a broad base of skilled and experienced lobbyists. In the 1960s, lobbying on behalf of animal causes was dominated by only a few individuals, among whom Christine Stevens of the Animal Welfare Institute was clearly the major player. (She had and still has excellent political connections in Washington.) In the late 1970s and 1980s, more and more groups hired experienced lobbyists and there are now more than ten employed with various animal organizations in Washington. Similar developments are taking place at state legislative bodies. Animal organizations now also expect more legislative success. Twenty to thirty years ago, an animal group would claim victory if it managed merely to have legislation introduced into the federal legislature. Now animal activists only claim victory if they manage to pass an earmarked bill.

Similar changes and increases in effectiveness have occurred in public relations and in technical skills. One sign of their growing skills and clout is the growth in membership and funding. During the 1980s, People for the Ethical Treatment of Animals (PETA) used direct mail to grow from 25 individuals to an organization
boasting over 250,000 contributors and income of $9 million in 1990 while the HSUS boosted its membership from 35,000 in 1978 to around 500,000 in 1992. Even specialty groups such as the Animal Legal Defense Fund and the Humane Farming Association have experienced dramatic growth in membership and income (Rowan, 1989a). However, one should also not exaggerate the skills and tactical sophistication of the animal movement.

In general, one can categorize movement tactics and strategies into the following broad arenas:

a) Legislative/Regulatory

i) 1985 Animal Welfare Act Amendments

ii) Helping to increase funding for the Biomedical Models and Materials Resources (BMMR) program at NIH

The 1985 Animal Welfare Act Amendments started with a bill developed by several animal advocates in Colorado and then introduced by Representative Patricia Schroeder (D-Colorado) in 1980. The bill went through a number of revisions following discussions with a wide variety of people, including many animal research interests and was finally passed right at the end of 1985 when Senator Dole, at the urging of Christine Stevens, added the bill’s language onto a food bill. The language survived a conference committee and was signed into law by President Reagan.

The BMMR program at NIH funds a variety of programs and projects that can be loosely identified as alternatives. Members of the animal protection movement wished to support more BMMR activities so they cooperated with several other organizations (not all of whom were animal groups) to lobby successfully for increased BMMR funding. (A portion of the increased funds was awarded to the Johns Hopkins Center for Alternatives to Animal Testing.)
b) Public Education via Mailings and Publications

The animal protection movement has always relied heavily on its publications and other materials to increase public support for its programs. These materials range from campaign/fund-raising publications like the HSUS' Close-Up Reports to public service announcements and print advertisements, to periodicals like the quarterly magazine, Animals. The impact of these materials varies considerably. The HSUS Close-Up Report on the Draize eye irritancy test is now considered to be an important element in the success of the campaign (see Chapter IX) but much of the "campaign" literature serves primarily a fund-raising rather than campaign role (Anonymous, 1990b).

In addition, many of the animal groups run humane education programs for the elementary grades. These tend to concentrate on how to treat animals in general and how to take care of companion animals in particular. There is little evidence that such materials or education programs have had much long term influence in changing public views. In the 1930s there were millions of children enrolled in humane education clubs around the country but these individuals were not particularly visible or active in the 1950s when they reached their most productive adult years.

It appears as though public attitudes to animals change due to subtle social forces and that animal protection literature tends to exploit rather than stimulate changes in public attitude.

c) Public Demonstrations

i) 1983 Mobilization for Animals demonstrations against the Primate Centers
ii) 1990 Washington March for the Animals

Demonstrations and direct actions are usually
organized when the target of the campaign is not responding to specific inquiries. In other words, they are usually a sign that the group is outside the power structure. On some occasions, demonstrations may be mounted specifically to attract press attention or to provide a chance for activists to reaffirm their goals and reassert their commitment. Both of the demonstrations listed above ended up mainly as opportunities for activists to recharge their batteries.

In fact, the 1983 Mobilization helped rather than hurt the primate research centers that were its targets. Because of the proposed Mobilization, primate researchers spent considerable time and effort talking to NIH officials and their elected representatives in Congress. When the Mobilization produced little in the way of a lobbying counterweight, the U.S. Congress appropriated an extra $2 million to support the Primate Research Center program. While three thousand people cheered the organizer of the Mobilization in a rally in Boston, the demonstrations produced exactly the opposite effect of that intended.

The June 10, 1990, March for the Animals was a relatively efficiently organized event that drew about 25,000 people to Washington but it was unable to convert those numbers into effective political or public relations actions. The scientific community made good use of the attention surrounding the march to get its message out to the media and, for the most part, published stories led with the establishment’s viewpoint that animals had to be used and were, in any case, used humanely. Many of the news reports from the march also noted how Christopher Reeve of Superman fame, who had agreed to address the march, was booed by the marchers for taking only a moderate animal welfare stand.

d) Targeted Campaigns

i) Draize eye irritancy test campaign
ii) Campaign to stop pound animal release to laboratories - ProPets

The animal protection movement launches many campaigns every year but only a few are sustained for any length of time with both staff time and financial resources. In the 1960s, the treatment and care of animals in research was the focus of various campaigns and the handling of dogs and cats by dealers became a major issue leading to passage of the Laboratory Animal Welfare Act in 1966. In the early 1970s, there was a massive public furor over the Pentagon's use of beagles. This is the incident that supposedly generated more mail to the Pentagon than Truman's firing of MacArthur.

Apart from the legislative campaign, the Draize and pound seizure campaigns were among the few that were sustained for more than a year. As noted, the Draize campaign was very successful while the pound seizure effort was not.

The Draize campaign was described earlier and its success was due in significant measure to Henry Spira's skill in street politics and to the fact that the campaign goals were clear and simple. By contrast, the pound animal campaign was run by a committee of representatives from the various member groups and they could never come to a firm agreement on what the ultimate goals should be. For example, there was considerable argument over whether they should campaign for the abolition of all use of research dogs, or just pound dogs. In addition, the pound animal campaign was always likely to be more problematic because dogs have been used in research that has led to medical benefit while causing a rabbit to suffer to develop a new cosmetic seems to be a much clearer cost-benefit decision in favor of the rabbit.

e) Underground or Illegal Activities

i) Taub/Silver Spring case - 1981
AMERICAN MUSEUM OF NATURAL HISTORY
The Cat Sex Experiments Campaign

Many consider the campaign organized by Henry Spira against experiments on cat sexual behavior at the American Museum of Natural History in New York City to be the first successful campaign by animal activists against a specific animal research project.

In the summer of 1975, Spira learned of the cat sex experiments and started collecting information. It appeared to be an ideal issue around which to build a campaign and it was also convenient since Spira lived just around the corner from the Museum. After a year of planning, Spira launched his campaign in June of 1976. Protestors picketed the Museum every weekend. By August, the Museum had received over 2,500 letters on the subject, some sixty people had cancelled their membership and about thirty congressional representatives had inquired about the study. In particular, Congressman Ed Koch (later the Mayor of New York) picked up the campaign and questioned the merits of the project in eyecatching terms (Koch, 1976).

In October, Nicholas Wade brought the attention of the scientific community to the campaign with an article in Science (Wade, 1976). This was the first time that the concerns of the animal activists were taken seriously in a major scientific publication. Wade also examined the relative merits of the research using the technique of science citation analysis and pointed out that Aronson’s research had not been widely cited. Garfield (1980a & b), the pioneer of citation indexing, criticized Wade’s article, arguing that he missed some citations and overlooked some of the basic problems of citation analysis. Nevertheless, Garfield came to approximately the same conclusion on the question of merit. At the end of his article, he stated:

“While it is clear that Lester Aronson’s cat research does not merit the kind of furious criticism it has received, the case brings up some more fundamental issues. I am perplexed by the assertion that Aronson’s work is deemed quite significant by Beach and others when their citation of his work is minimal.”

The campaign continued throughout 1977. In August, 1977, Lester Aronson retired. At the end of the year, the Museum announced it would concentrate on field rather than laboratory studies and closed his laboratory.
"Never has a major social movement been engendered by two more unlikely and relatively unsavory protagonists. Although neither Alex Pacheco, physically courageous but self-dramatizing and fanatical, nor Edward Taub, uncomprehending, lost in denial, is anything close to a simple heroic icon, the strange fact remains that their meeting was the spark that touched off what we now think of as the American animal-rights movement."

(From Fraser, 1993)

Other than the Draize eye irritancy and LD50 campaign, the most successful (in terms of impact) animal protection campaigns of the last decade to target animal research have been the Silver Spring and Pennsylvania Head Trauma laboratory actions. The Silver Spring case involved an animal activist, Alex Pacheco, volunteering at Dr. Edward Taub's laboratory in Silver Spring, MD, for the summer of 1981 to find out firsthand what went on in research. (Pacheco says he chose the laboratory because it was near his home but it had been an object of suspicion for Washington-area animal activists since 1977.) At the end of the summer, evidence provided by Pacheco to the Montgomery County Police led to the charging of Dr. Taub with cruelty to animals and to the confiscation of seventeen monkeys housed in the laboratory. The subsequent cruelty trials, Congressional hearings, NIH investigation and later battles for the custody of the monkeys horrified the scientific community, upset many in Congress and in the general public, and helped to boost PETA (Pacheco was chairman of PETA) from a small grass-roots organization into a rapidly growing national organization.

One of the key features of the Silver Spring case was that Pacheco did not vandalize the laboratory but simply took photographic and other evidence to the police. There were no confounding images of illegal break-ins and vandalism to divert attention away from the treatment of the monkeys.

The Head Trauma laboratory case involved a break-in by Animal Liberation Front activists who removed files, 60 hours of laboratory videotapes of the baboons, and vandalized equipment and the facilities. The materials were turned over to PETA who edited the
videotapes into a 25-minute tape that showed graphic scenes of head trauma and inappropriate care and handling of the baboons. The visual material was extraordinarily powerful and nearly everyone who saw it (including conservative and liberal commentators alike) were sickened by it. Coming only a few years after the Silver Spring case, it sparked widespread changes in the way animal research was regulated (NIH adopted revised animal research policies in 1985 and the Animal Welfare Act was amended at the end of 1985).

However, the Head Trauma laboratory also galvanized many scientific and research organizations into action to deal with this new threat. No subsequent break-in and “liberation” of material allegedly documenting abuse of animals has had the same impact. The break-in and vandalizing of Dr. John Orem’s laboratory at Texas Tech University produced relatively little media impact while it hardened the resolve of research advocates. Although John Orem used cats in sleep-deprivation research, the activists who broke in found little evidence that he had contravened any laws or regulations (at least the Office for Protection from Research Risks of the NIH found no evidence of wrongdoing in the materials supplied to them) and there were no dramatic visual images to support animal activists’ claims of cat abuse. In addition, by 1988, the media had begun to pay more attention to the research advocates’ message that animal activists were dangerous fanatics so the vandalism of Orem’s laboratory and the anonymous threats against him and his family merely served to confirm the characterization.

As underground actions to “liberate” information and expose wrongdoing became more violent or became simple acts of destruction, the media became less interested in what was being exposed and more interested in the acts of destruction themselves.

f) Cooperation, conflict and future trends in the animal protection movement
There has always been a tendency for animal groups to fight with one another and various leaders throughout the history of the animal movement have sometimes taken such fights to extremes of personal animosity. Whether the animal protection "movement" is peculiarly antagonistic or whether such internecine wars are a natural consequence of being a social protest movement has never been studied. However, the rise of the animal rights (both political and philosophical) message has appeared to lead to greater internal consistency of beliefs and to a tendency to co-operate with one another more than in the past.

For example, the old antivivisection groups have become revitalized by young activists and become more coherent and consistent in their philosophies and their programs. One now rarely finds antivivisectionists protesting against animal laboratories while wearing furs and most members are either vegetarian or heading in that direction. Nonetheless, some of the old divisions and animosities remain and the political potential of the animal protection movement has never been reached. It has as many committed activists as the National Rifle Association (NRA) and five times as many members but has not been able to translate that emotional commitment into the same level of political clout at either the state or federal level as the NRA.

While disunity and lack of cooperation is one of the weaknesses of the animal protection movement, there is another problem that may be just as critical. Most successful activist social movements go through various stages - formation, growth, acceptance as political players, and incorporation of issues into establishment programs, or decline and disappearance. When social movements or their issues become incorporated in the power structure, what generally happens is that the establishment takes on board only those messages
that it can live with and discards those that it cannot. By doing this, the establishment brings some, perhaps even a sizable proportion, of the movement’s support back into the establishment fold.

Those activists who are unable to live with incorporation into the establishment may either fade away or form (or join) another organization to promote the goals that have not been taken up. Depending on the size of this new group and their ability to touch the pulse of the public, the faction will either grow into a new social movement or will fade into relative (albeit possibly irksome) obscurity. The animal protection movement is now in the acceptance/incorporation phase and it is not clear how the movement will deal with the pressures and new tactical and strategic challenges that it will face in the next decade.

The movement has not been particularly successful in developing links with potential allies in the establishment because of past mutual suspicion and distrust. For example, the veterinary community could provide an important source of technical expertise and support for animal organizations but productive ties with organizations (as opposed to individuals) are relatively few and far between.

Academe is another potential source of expertise and support as demonstrated by the activities and support of many philosophers. But there is only limited contact between biomedical specialists and animal protection. This is probably because university faculty and researchers are regarded with suspicion because universities are the places where animals are used (“tortured”) for research. While the environmental movement has made good use of academic scholarship and has developed strong ties with academia via a variety of centers and other academic programs, the animal movement is still uncertain how to interact with and develop alliances with academe. For the most part, the animal protection movement has hired its own specialists but
then loses the authority and credibility of an "independent" voice.

2. RESEARCH ADVOCACY GROUPS

Research advocacy and professional scientific and health organizations tended to ignore the animal protection movement for the most part until the mid-1980s. Up through the 1970s, those who spoke out against criticism of animal research tended to direct their remarks either to their colleagues (in academic publications) or simply informed the public that they should believe the scientists rather than the animal activists who were described as (or implied to be) a deluded fringe of society. These tactics had little impact on public opinion and the animal movement continued to grow and enjoy excellent media relations.

Some individuals involved in animal research became concerned by the lack of attention given to the issue by existing research advocacy organizations, especially the National Society for Medical Research (NSMR), and, in 1979, started a new research advocacy organization, the Association for Biomedical Research (now the National ABR after merging with the NSMR in 1985). A 1978 letter in Science urged scientists to look beyond the emerging personalities and engage the issues raised by the critics (Loew, 1978). Then, in July of 1985, Margaret Heckler, Secretary of the Department of Health and Human Services suspended a grant to the University of Pennsylvania head trauma laboratory because of violations of animal care and use policies. This was a wake-up call for the research community and corporations, non-profit institutions and professional societies that all began to develop programs to counter the animal rights movement.

The Association for Biomedical Research (which

"In the last two years, the American medical and biomedical research establishment, federal health officials and associations representing industries that use animals in research have launched a multi-million dollar campaign to counter the animal rights movement."
(Leepson, 1991)
had many corporate members) and the National Society for Medical Research (which had many university and medical school members) combined forces to form the National Association for Biomedical Research. Many states either established state-based societies for medical research or revived organizations that were active in the early 1900s but then gradually fell into a dormant state.

These groups developed a range of tactics and approaches to the issue. They monitored state and federal legislatures and lobbied against animal protection legislative initiatives. In Congress, a bill was introduced and eventually passed and signed into law making theft and destruction of property at a research facility a federal crime and subject to FBI jurisdiction. The groups developed numerous brochures and other materials for the public, including a rather successful series of posters promoting the need for animal research.

They supported the development of patients’ organizations to counter animal protection campaigns and emphasize the importance of animal research to the advancement of medical knowledge. They also developed a variety of curricula and other materials aimed at school teachers and school children that are designed to confirm the importance of animal research and re-affirm how good laboratory animal housing and care are.

There has also been a tendency among some research advocates to characterize animal activists as violent fanatics who are anti-science and anti-human. There are signs that this has had some impact. Media coverage is not as positive as it was in 1985 and there is more mention of the violent aspects of animal protection movement campaigns and activities.

An interesting analysis of the research community reaction to animal activists was produced by two animal researchers from New Mexico (Gluck and

"The lack of ethical self-examination is being masked by an atmosphere of war that exists between animal activists and biomedical researchers."

(Gluck and Kubacki, 1991)
Kubacki, 1991). They started their analysis with Habermas’ *The Theory of Communicative Action* (1984, 1987; cited by Gluck and Kubacki, 1991). Habermas distinguishes between two types of activity - instrumental action, which is control and success oriented, and communicative action which is aimed at developing understanding. All human actions constitute some mixture of these two forms of interaction but when instrumental action dominates communicative action, then participants focus on achieving a goal rather than developing an understanding with the effect of dehumanizing the participants on both sides of the debate.

Gluck and Kubacki (1991) identify three working assumptions that research scientists have about animal activists that have now become hardened abstractions that serve as significant obstacles to the development of any constructive understanding of what really underlies the debate. These assumptions are:

i) although the animal movement may be threatening and powerful, it is trivial;

ii) all science is excellent and some especially so; and

iii) an ethical consensus cannot be reached

While the authors also feel that animal activists have painted a far too negative picture of the utility of animal research, they focus most of their attention on the argument that the above assumptions are incorrect and that the efforts by the scientific community to dominate and control the issue serve to undermine scientific discourse rather than protect and foster its development. In other words, the scientific community is as guilty of undermining its basic core values (of free exchange and scholarly debate) by avoiding open and non-coercive discussion as the animal liberation movement is when it resorts to intimidating and violent actions.

Research advocacy organizations have also por-
trayed themselves as being up against powerful and much better funded opponents, but the playing field is more equal now than it was in the 1970s and research advocacy groups may have the advantage in both resources and connections to establishment institutions. While the national animal protection groups have combined annual expenditures of around $100 million, they probably devote no more than $15 million annually to the animal research issue.

By comparison, the national and state-based research advocacy groups together currently devote $5-6 million a year to support the need for animal research (see Appendices). However, the considerable activities of the professional scientific and medical societies, of the National Institutes of Health and of the many corporations that are now actively engaged in the debate are not included in the above figures. Given the fact that the research establishment also has better access than animal advocates to the sources of power and to the policy makers in America, the balance of influence in the debate over animal research appears to lie with those who support the need to use animals in the laboratory.

2. PRESTIGE OF SCIENCE

Polls indicate that scientists belong to one of the most admired professions. In the U.S., 88% of the public believe that the world is better off because of science and scientists are second only to physicians in public prestige (National Science Board, 1989). In the UK, the three most respected public institutions are medicine, the military and scientists in that order (Kenward, 1989).

3. THE TROUBLED MIDDLE

Although it may appear from a quick survey of media stories that the debate over animal research is hopelessly polarized, there are many scientists and interested members of the public who occupy what philosopher Strachan Donnelly of the Hastings Center in
New York has called the “troubled middle.” In other words, they accept (albeit with some reluctance) the need for animal research but also acknowledge and worry about the moral challenges raised by the practice. This group may constitute a silent majority since more than half of those polled object to the use of animals in the testing of household products and also express concerns over the manner in which animals are housed and handled. This silent majority could be mobilized to participate in and support a constructive dialogue, leading to reasonable and effective public policy initiatives that would allow progress toward the elimination of animal pain and distress in research without placing unreasonable barriers in the quest for greater biological and medical understanding.

In England, Australia and a number of European countries, a constructive dialogue has been developed around the “troubled middle,” involving both critics and defenders of animal research, with the active encouragement and support of government authorities. In England, for example, the Animal Procedures Committee (APC) is established by Statute under the 1986 Scientific Procedures Act and includes a broad range of opinions. The APC provides a forum for in-depth discussions and arguments about specific aspects of animal use as well as some of the underlying assumptions. In the U.S. such dialogue has been less visible (because there is no officially sanctioned forum?) but is nonetheless occurring. Representatives from pharmaceutical and household product companies have been working with representatives from several major selected animal protection groups to support initiatives that would lead to the development and use of alternatives to some animal testing. Both defenders and critics of animal research have lobbied for more funding for the enforcement of the Animal Welfare Act. In addition, as more people on each side develop a better understanding of the arguments and basic assumptions of the other side, chances for a meaningful and productive dialogue improve.
C. ROLE OF THE MEDIA

Like the animal protection "movement" and the scientific "community," the media is not a monolithic force in the presentation of the animal research issue to the public. In fact, one sometimes finds diametrically opposed media messages in the same article let alone opposing stories in the same publication or program. For example, Time (8/26/91) ran a story about threats to science and identified animal activists ("fanatic critics") as a threat to Alzheimer research. However, later in the same story, the authors talked in glowing terms of the "moderates" who have worked with scientists to find alternatives to animal blinding in the testing of "harsh cosmetics." These conflicting messages in the same story may be simply a result of poor editing (major stories in Time are often pulled together by a number of different journalists) or it may reflect the different attitudes to Alzheimer’s research and cosmetic testing.

1. ANIMAL IMAGES

It is a standard dogma in media circles that animal stories always play well with the public and even quality magazines are known to use an animal on the cover for the week when circulation is measured. ("Cover animals" apparently increase newsstand sales.) Certainly, images of animals under experimentation evoke powerful emotions and are quite capable of overwhelming even carefully crafted and considered text or commentary. This is a particular problem for television where images play such a central role and where both activists and scientists are likely to be disturbed by what they see (particularly since the images are taken out of the laboratory context and beamed into living rooms). It may also be one reason why nearly every television program that attempts to achieve even a modicum of balance on the issue (by giving both sides in the debate a voice on the program) is usually criticized as being biased by both animal and research advocates.
Some key (influential) print stories on the animal research issue include the following:

1966 *Life* (February), ran a story on dealers who provided dogs to laboratories. The pictures were horrific, showing starving, dead and injured dogs in appalling conditions in a dealer's compound. The story is widely credited with provoking such a storm of public outrage that Congress rapidly passed the Laboratory Animal Welfare Act of 1966.

1973 The Department of Defence ran into a storm of public outrage and criticism for their use of beagles in research. One of the unverified stories that has circulated about the incident is that Congress received more mail on this subject than when President Truman fired General MacArthur.

1976 *Science* (August) carried a story by Nicholas Wade on the protest by New York animal activists against experiments on cat sexual behavior at the American Museum of Natural History. This was the first feature story in *Science* that took the issue of animal activist protests against animal research seriously. Wade used citation analysis to evaluate research claims that the studies were very important and concluded that the research claims were overblown, thus confirming some of the claims of the activists. After a year of demonstrations, the principal investigator retired and the Museum closed the laboratory down.

1980 The campaign against the Draize eye irritancy test was launched with a full-page *New York Times* ad (April 15) featuring a rabbit under the title "How many rabbits does Revlon blind for beauty's sake?" The ad became a news item itself and was followed a few months later by a second ad featuring a rabbit in dark glasses carrying a white cane.
1981 Discover Magazine (February) ran the animal research issue as its cover story. This was the first of the popular science magazines to give the issue such a high profile.

1981 The story about the police raid on Dr. Edward Taub’s laboratory, his being charged with cruelty to animals, and the seizure of seventeen monkeys from his laboratory in Silver Spring, Maryland, was widely covered by the media. It is still a focus of media interest as evidenced by features in the Washington Post Magazine (1991) and the New Yorker (1993).

1985 The head trauma laboratory story broke in 1985 and was widely covered. Most of the stories were very negative. When NIH suspended support for the laboratory, both the New York Times (7/31/85) and the Washington Post (7/28/85) ran editorials condemning the project in very strong terms.

1986 Katie McCabe’s Washingtonian article (August), “Who will live? Who will die?”, was the first major feature that heavily criticized the arguments, motives and tactics of the animal movement. It was followed four years later by a sequel in the February, 1990, Washingtonian (“Beyond Cruelty”) that continued the criticism of animal activists and PETA in particular. PETA sued and the Washingtonian subsequently retracted some of the statements and allegations in the article (Dec., 1991).

1988 Newsweek ran a cover story in December of 1988 on animal rights (and also another cover story earlier in the year on animal thinking.)

1991 The Sacramento Bee (Nov 25-29) series on primate research by Deborah Blum won a Pulitzer Prize. Blum noted that neither side entirely approved of the way she wrote the series.
Why then have scientists been relatively unsuccessful in countering media images of protests against animal research and testing and allegations of laboratory animal abuse?

The public may admire science but its perception of science has fallen since the halcyon days of the 1950s when it was felt that federally funded science could surmount any problem the country or world could throw at it. The development of the polio vaccine was a clear example of the “omnipotence” of science. However, beginning in the late 1960s and lasting throughout the 1970s, more and more of the public began to ask whether science might not be more harmful than beneficial. However, the public is less trusting of authority in general and it is likely that the increasing concerns about science were simply a reflection of this larger trend (science carries significant authority in modern technocracies).

The media has focused more attention on the human fallibility of scientists and has not simply concentrated on scientific breakthroughs. It is not surprising that initial public hopes about the benefits to be derived from science give way to fear of the risks of innovation and of losing control of one’s own life. Also, the public swing towards more conservative values has tended to undermine support for science because science is an agent of change and, therefore, antithetical to conservative values. Despite this, science is still considered a prestigious profession in most polls (Pion and Lipsey, 1981).

3. SCIENTIFIC PERSONALITY

The perception of scientists’ personalities by the public has always been stereotyped and distorted. In surveys from the late 1950s, scientists were seen as intellectual and dedicated but difficult to comprehend and erratic in interpersonal relationships. A 1975 survey reported that they were seen as remote, withdrawn,
secretive, unpopular and single-minded souls (Pion and Lipsey, 1981). Other surveys identify qualities such as rationality, objectivity and coldness with scientists (Gerbner, 1987; Weart, 1988). Gerbner (1987) reports that television images of scientists do include some positive roles, but ambivalent and troublesome portrayals of scientists are more common. He found that public exposure to science and technology through television influences the viewer to be less favorably disposed towards science.

However, television does not invent this ambivalent view of science. The caricature of the curious, if not mad, scientist who ignores the dangers of his research (the scientist is nearly always male) in his relentless quest for knowledge is found throughout literature (e.g. Frankenstein, The Island of Dr. Moreau and Jurassic Park) and other entertainment media. For example, several recent popular films (e.g. Project X, Greystokes and Splash) reinforce the image of the callous and unfeeling scientist caring nothing for or even mistreating the beings under investigation. The public also tends to view laboratory animals as helpless innocents and when animal innocence is combined with the above stereotype, it is not surprising that it might be easy to influence the public to believe that a "cold and rational" animal researcher would lack concern for his or her research animals.

Research scientists usually reinforce this image in the media by failing to express any concern for the moral ambiguities of animal research and by using dispassionate language and rational argument. For example, one medical researcher commented during a public talk that she would use her own, much loved pet cat in research if she thought it would advance her search for a therapeutic intervention for human disease.
4. PUBLIC ATTITUDES TOWARD ANIMAL RESEARCH

Numerous polls of attitudes to animal research and testing have been conducted and the findings can be summarized as follows.

a) About two thirds to three quarters of the American public are prepared to accept the need for animal research.
b) The percentage that actually supports animal research is usually about 10 percentage points lower.
c) About 10-15% of the public actively opposes animal research.
d) The percentage opposing animal research changes depending on the type of animal used and the type of research. Thus, most people support research that uses rats but this figure may be halved if dogs are the research animal. Similarly, cancer research is considered very important by the public but support drops off for alcohol and drug addiction research and for cosmetic and household product testing.
e) So-called "basic" research does not receive as much public support as goal-oriented medical research.
f) About half the public is uncertain whether animal researchers treat their animals humanely.
g) It appears as though the public is becoming less tolerant of the use of animals in research. The biennial Science Indicators survey commissioned by the National Science Board (National Science Board, 1991) in the U.S. find that public support for animal research dropped between 1985 and 1990.

5. BIOMEDICINE, ANIMAL RESEARCH AND THE MEDIA

In the past year or two, professional societies such as the American Medical Association and the Federation of American Societies for Experimental Biology have begun to take a more militant stand towards their animal activist critics and a debate that was already
sharply polarized has become even more so. The overall aim of these scientific organizations seems to be to persuade what is viewed as an unfortunately ignorant public that continued good health depends on animal research and that there is a health-dependent choice to be made: animals or people, but not both.

The many news stories in the print and electronic media that describe the latest medical discovery are now much more likely to mention the role that animal research has played in the development. Leaders of the biomedical community have also devoted more time and effort to counter the animal protection message. For example, Secretary of the U.S. Department of Health and Human Services, Dr. Louis Sullivan, reached out to the media before the 1990 "March for the Animals" in Washington, DC. As a result, most of the media stories on the march led with Dr. Sullivan’s utterances about the need for animal research and the struggle to counter the activities of "animal terrorists."

The strategy of aggressively taking the biomedical research message to the public is too new to judge its effectiveness but some of the earlier campaigns and arguments in support of biomedical research have misfired or have failed to slow the decline in public support for animal research. The following analysis of some of the arguments and strategies indicates why they may have misfired.

a) Stressing the need for animals

About ten years ago, the National Association for Biomedical Research (an organization similar to the Research Defence Society in the U.K.) released a film called "Will I Be All Right, Doctor?" The main theme was the importance of animal research in developing new therapies and treatments. A lesser theme was the good care that the laboratory animals received. However, three quarters of the public already accepted that animals are needed in research and testing. Therefore,
the film did not address the real public concern about animal research - animal suffering and the perceived lack of concern by scientists mentioned above. On the question of animal care, the film was accurate but said to be unexciting and uninteresting.

b) Stressing the benefits of animal research

The biomedical research establishment commonly argues that animal research is conducted only because of the benefits it produces for human and animal health and usually follows with a long list of developments resulting from animal research. In so doing, the research community continues a long-standing tradition of science "education" (Birke, 1990) where critics are perceived to have incorrect information and facts and merely need to be provided with the "correct" facts to fall back in line.

Throughout this century, efforts to popularize science and to educate the public have tended to stress the benefits of science. As health care became more successful and more technical and the public became more demanding of those in authority, the public took purported benefits for granted. Groups that were critical of science started to speak out (e.g. environmentalists, animal activists, opponents of genetic engineering) more effectively and question the benefit claims. In most instances, the scientific community did not address the criticisms carefully or directly but tended to respond merely by stressing the benefits even more strongly. In other words, they tried to shout louder than their critics.

From observations of the debate and the effectiveness of public relations pronouncements, the public tends to accept animal research and testing when it appears to be of obvious benefit and does not produce too much suffering. However, when the research is perceived to produce a great deal of animal suffering, then the benefits have to be significant, immediate and
self-evident if the public is to accept such research.

c) The media and the public are victims of a good public relations campaign by the animal protection community

One relatively common view among the research community appears to be that the animal movement has made very skillful use of the media to exploit a gullible public. It is certainly true that the animal research controversy makes for good media copy, but the animal protection groups have, for the most part, not been that skilled at disseminating their message nor have they had particularly good media contacts.

Some activists have made effective use of images and have known how to develop media interest and cooperation. For example, the campaign against the rabbit Draize eye irritancy test provides such an example. The advertisement in the New York Times that asked “How many rabbits does Revlon blind for beauty’s sake?” became a media story itself. People for the Ethical Treatment of Animals (PETA) has also done well in obtaining coverage (in part, probably, because of the exposed or undercover characteristics of its information).

d) Animal activists and terrorism

In the past five years, biomedical spokespersons have frequently used terrorist descriptors when discussing the the animal rights movement. Underground animal groups that break into and vandalize animal facilities have, for example, been identified as dangerous terrorists who threaten the fabric of American society and culture. At times, the linking of animal activists with terrorism is very broad as though all activists are engaged in vandalism and life-threatening activities. There are indications that this tactic has had some impact on media coverage.

Historically, the argument over animal research
has always been sharply polarized and the more militant of the protagonists on either side have consistently identified their opponents as either sadists or over-emotional misanthropes. At the moment, the militant research advocates are labeling animal activists as dangerous misanthropes. Many in the animal protection and research community wish to avoid such counter-productive labeling but, with the media’s attraction to diametric opposites, it is not easy.

e) Do not apologize for animal use

There are some in the research establishment who have decided that there is no need to be apologetic about the use of animals in research and testing. They even argue that any establishment support for the idea of “alternatives” to laboratory animals is inherently apologetic and should be resisted. However, opinion polls all indicate that the public strongly supports the search for and use of alternatives and seems to believe that this is one way that they can have advances in health care without having to endure the psychic cost of animal research or the stigma of being labeled “anti-science.”

f) Conclusion

In the modern animal research controversy, “many citizens have begun to judge science according to their own moral standards rather than accepting the

Some might find the following story bizarre but it encapsulates very well the uncertainties and ambivalence that many scientists experience in their use of animals in research. Tom Peters, a research scientist, describes his life with Commander, a red-on-white dog whom he met when he did an experimental transplant procedure on him. For some reason, Commander was different from the other dogs and eventually, after some uncertainty, Peters took Commander home when the experimental protocol was finished and he became part of Peters’ family and a neighborhood favorite. Peters’ epitaph was an article about Commander in JAMA (260:1460, 1988) and the words, “He was a great dog.”
measures of professional achievement that scientists apply to themselves” (Ritvo, 1984). Thus, experimentation on animals has become a focal point for opposing animal protection and scientific points of view. The result has been little more than shouting matches, accusations of immorality by both sides, and a steady progression of one-downmanship with little constructive progress or careful analysis of the central issues in the media.

Ultimately, when dealing with the animal research issue in public, biomedical science and its spokespeople need to avoid the arrogance and cloistered smugness that lurk in wait for intelligent and creative but unwary professionals. In the world of the media as in politics, one is only as good as one’s ability to make an argument and present oneself as a credible spokesperson. Self-interest or condescension or inability to produce a believable rebuttal to the critics’ arguments will undermine credibility.

D. AD HOMINEM ATTACKS

1. INTRODUCTION

It is not uncommon for animal rights activists to view scientists as sadists, or for scientists to view animal rights activists as emotional fanatics. Obviously such views are slanted, but they are ubiquitous backdrops to the debate over animal research that obstruct constructive dialogue and the development of sound and effective public policy initiatives. How true are these caricatures and what do we really know about these two opposing groups? Who are they, and what do they hold as their goals?

2. ANIMAL RIGHTS ACTIVISTS

The typical activist is stereotyped as wanting to eliminate all animal research; valuing animal life and welfare over that of humans; subscribing to veg-
In the modern animal research controversy, "many citizens have begun to judge science according to their own moral standards rather than accepting the measures of professional achievement that scientists apply to themselves" (Ritvo, 1984).

There have been no studies of the attitudes of those who support animal welfare causes (who are now estimated to number 6% of the American adult population according to one private poll) but there have been several surveys or studies of animal rights supporters. Plous (1991), Herzog (1993), and Jamison and Lunch (1992) all surveyed activists who were present at the 1990 animal rights rally in Washington, D.C. Richards and Krannich (1991) conducted a random survey of 853 readers of *Animals’ Agenda*, the magazine of the animal rights movement. The findings were consistent across the surveys.

a) The activists were drawn to the movement by a variety of factors with a major proportion changing their life-styles (e.g. becoming vegetarian, not wearing leather) in order for their behavior to be consistent with their beliefs.

b) More than two thirds of those surveyed were female, confirming the general belief that concern for animals is influenced by gender. However, animal activists were no more likely to be unemployed than the general population. This contradicts the view that animal activists are drawn from those who have too much "time on their hands." In addition, the age structure of the population of activists was as might be expected given the samples that were surveyed.

c) Activists were much better educated (and enjoyed higher incomes as a result) than the general population. For example, Richards and Krannich (1991) report that 82% of their sample had some college education (33% had a masters degree or better) compared to 32% of the general population. Jamison and Lunch (1992) reported that 62% of their sample had at least some college
education. (Magazine subscribers are known to have generally higher educational achievement levels than non-subscribers.)

d) The animal activists also report high levels of commitment to other social movements includes the environmental, anti-war, women's and civil rights’ movements.

Overall, the studies show activists to be female, college educated, financially well-off, in white collar jobs, and active politically.

3. SCIENTISTS

Medical researchers are often portrayed as murderers, butchers, and even Nazis by some animal activists. In one survey, 87% of activists polled stated their belief that the typical animal researcher does not care about the animals used and views them as “expendable supplies” (Plous, 1991).

However, actual data from studies of scientific attitudes indicate that many researchers do have reservations about animal research (Birke and Michael, 1992; Takooshian, 1988). Arluke (1988 and 1990) conducted ethnographic research on the culture of a variety of animal research laboratories in Boston and found that scientists and technical staff experienced significant conflict in their use of animals. For example, about a quarter of those he spoke to reported having nightmares about animal research when they first started using animals. These nightmares stopped after about three months when they had managed to construct appropriate psychological defenses to deal with the conflicts (Arnold Arluke - personal communication, 1990). Laboratory personnel (and the technical staff in particular) also tended not to talk about their work at social gatherings except in vague and general terms.
In general, the research indicates that scientists and technical staff are just as concerned and caring about animals as other people but that they need to assimilate into a culture in the research institution that tends to avoid expressions of emotion and feeling about the animals. There are a few examples of breaks in the culture (when technicians take laboratory animals as pets, for example) but such actions are usually against institutional policies and so are concealed from the authorities. While the laboratory culture creates a superficial appearance of a lack of normal human emotion and concern for animals, those emotions and concerns are certainly present and are a source of continuing ambivalence and uneasiness.

4. SHARING A COMMON GOAL

Is it possible that the above two groups, research scientists and animal activists, who appear to be so opposed to one another, could share a common goal? The data indicate that the attitudes and concerns of the two groups may not be as polarized as the rhetoric might indicate and that there may be some (perhaps considerable) common ground.

For example, Medawar, the 1961 Nobel Prize winner for medicine, once stated that "nothing but research on animals will provide us with the knowledge that will make it possible for us, one day, to dispense...

Katie McCabe is a free-lance reporter who spent nine months researching both the animal rights community, particularly People for the Ethical Treatment of Animals, as well as the research establishment. It is McCabe's opinion that the animal rights movement is a "well-organized, well-funded, politically powerful force with carefully orchestrated, but profoundly duplicious public relations, legislative and financial strategies" (McCabe, 1987). McCabe believes the plea for humane treatment to be merely a smokescreen for the movement's core of hatred and antiscience sentiment, and urges the scientific community, long silent, to communicate with the public as aggressively as their opposers.
with the use of them altogether” (Medawar, 1972). In other words, Medawar implies that we should seek the goal of total replacement and that scientists should play a role in reaching for it. This is also the goal of the antivivisectionist.

If there is some agreement that the ultimate goal of replacement is both valid and desirable (and there are still some scientists who balk at the idea that they might agree with antivivisectionists on any goal), the two sides certainly do not agree on when the use of animals in research can be phased out or how much effort should be devoted to achieving replacement of all laboratory animals.

For example, the majority of scientists do not concentrate on the search for “alternatives.” Their major focus is on solving their research problems. It is both understandable and legitimate that their research priorities should be ordered like this but activists want to see more resources devoted to the search for alternatives. It is also legitimate that their activist priorities be ordered to favor alternatives. The public governance goal is to develop policies and programs that meet enough of the needs of both sides to reduce tensions and allow social institutions to function more efficiently.

E. INTIMIDATION AND VIOLENCE

When Peter Singer published Animal Liberation in 1975, he clearly stated that those dedicated to animal liberation should be concerned with human suffering as well as non-human animal suffering, asserting that animal rights activists need to be for animals, not against humans. In the twenty years since Singer’s philosophy caught the public’s attention, break-ins and acts of violence to protest alleged animal suffering have become more common. Women in fur coats are harassed, laboratories are broken into and vandalized, and researchers have their homes picketed and receive threat-
kening letters and phone calls. In the second edition of *Animal Liberation*, Singer (1990) reiterated his argument that violence on behalf of animals would only serve to undermine the goals of the animal liberation movement.

Acts of intimidation and violence have brought media attention to the cause of animal liberation, but, when illegal actions move beyond the “liberation” of information to actual violence, the indications are that the animal movement loses rather than gains. Violent actions provide ammunition to those advocates of animal research who have worked to label all activists as dangerous and people-hating, rather than animal-loving. Certainly, the passage of a law specifically aimed at illegal actions against animal-using institutions could not have passed if research advocates and farming interests were unable to convince members of Congress that there was a real threat.

The enactment into law of the Animal Enterprise Protection Act on August 26, 1992, was, in part, a response to the growing establishment expression that activism on behalf of animals constitutes an important threat to American society. One section of this act directed the Attorney General and the Secretary of Agriculture to produce a report to Congress, within a year of the act’s passage, on the extent and effects of terrorism on enterprises that use animals. That report (32 pages long) was sent to Congress on September 2, 1993.

One of the first issues that the report addresses is the definition of terrorism. For example, the Animal Enterprise Protection Act characterizes terrorism as the physical disruption of an animal enterprise. However, the FBI defines terrorism as “the unlawful use of force or violence against persons or property to intimidate or coerce a government, the civilian population, or any segment thereof, in furtherance of political or social objectives.” The authors of the report note that they address a wider range of activities than covered by...
either the act’s or the FBI’s definition. It is not immediately clear what this range might be. The associated table, identifying the types of protest up to and including terrorism that have been employed on behalf of animals, may be of some use in thinking about the issue of violence, non-violence and public protest in general.

From 1977 to June 1993 (the first known illegal act on behalf of animals in the U.S. occurred in 1977), there have been 313 documented break-ins and acts of vandalism or intimidation. Demonstrations, protests and sit-ins were not included in the report. Forty-three percent (135) of the incidents involved attacks on research facilities or individual scientists. Fifty-one percent (160) of the incidents involved minor vandalism, 25% (77) involved the theft or release of animals, 9% (29) involved threats against individuals, 8% (26) involved major vandalism, 7% (21) involved arson, 5% (16) were bomb threats, 4% (14) were firebombs and 3% (9) were bomb hoaxes. Almost half (46%) the incidents occurred in California while another 34% occurred on the Eastern seaboard. There was an initial peak of activity in 1984 (31 incidents) and then a second surge from 1987 to 1991 with an average of 40 incidents per year (a high of 53 incidents in 1987). During 1992 and the first half of 1993, there were 24 incidents. It is not clear why the incident rate has fallen recently although several Grand Jury investigations were active during 1992.

Twenty-one incidents were reported to have caused more than $10,000 estimated damages each for a total of $7.75 million. One of these incidents, the arson attack on a veterinary diagnostic laboratory at the University of California, Davis, caused $4.5 million in damages.

The report draws several general conclusions. First, it stated that the number of activists engaged in illegal actions is believed to be relatively small (around 100 in the ALF which claimed credit for about 60% of the incidents). Second, while the majority of actions in-
valved only minor vandalism and the theft of animals, the proportion of more militant actions that cause more damage, or that threaten or potentially threaten individuals with harm, may be increasing. Third, while the institutions and industries targeted for attack claimed that their operations have been significantly affected (e.g., they have implemented tighter security, are paying higher insurance rates and have suffered damage from delayed and disrupted research), the costs have not been reliably quantified.

The illegal activities of the Animal Liberation Front and related organizations raise troubling questions not only for the targeted institutions but also for animal activists who engage in legal protest. For example, the Massachusetts-based animal activist group, CEASE, specifically disavows illegal actions. At the national level, the four major animal protection organizations (AHA, ASPCA, HSUS and MSPCA) have issued a formal statement criticizing violent actions on behalf of animals. In fact, the very philosophy of animal rights, which opposes harm to sentient beings, also militates against violent protest. In a recent letter to USA Today (9/23/93), the successful and widely respected animal activist, Henry Spira, comments that the animal "...movement promotes consistent non-violence: It's wrong to harm others - and that goes for both humans and other animals."

The public debate about the underground actions of animal activists indicates that there are differing views of what constitutes violent behavior. Most of those raising the alarm about animal activists tend to

<table>
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<tr>
<th>Forms of Public Activity Aimed at Changing Opinion</th>
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<tbody>
<tr>
<td><strong>Protest</strong></td>
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<td>Letter writing</td>
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<tr>
<td>Publications</td>
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<tr>
<td>Lobbying</td>
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<td>Demonstrations</td>
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<tr>
<td><strong>Civil Disobedience</strong></td>
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<tr>
<td>Persuasive: change attitudes</td>
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<td>Non-persuasive: change behavior</td>
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<tr>
<td><strong>Property Destruction</strong></td>
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<tr>
<td><strong>Intimidation and Violence</strong></td>
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<tr>
<td>Picketing individuals</td>
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<tr>
<td>*Overt threats to individuals</td>
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<tr>
<td>*Physical harm to individuals</td>
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<tr>
<td>(&quot;Terrorism&quot; - definition may include property destruction as well)</td>
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1994
define any illegal action as violent and therefore as terrorism. Activists themselves tend to distinguish between illegal activities that liberate animals and information and destroy property, versus those that go even further and intimidate or threaten harm to people. For the most part (as the government report acknowledges), underground activities in the U.S. have concentrated on liberating animals or gathering information to expose the conditions found in certain laboratories.

As mentioned earlier, this approach proved to be quite successful, both in attracting media attention and in changing public policy. However, press coverage began to change to a more critical tone towards the end of the 1980s. Part of this change may have been caused by a more aggressive defense of the need for animal research by funding agencies and scientific organizations. But it may be more than just coincidence that media coverage of animal rights has become more negative as the "dangerous" and "violent" labels have begun to stick to the more visible actions of the movement (the Justice Department report notes that actions against people and property [as opposed to gathering information or releasing animals] increased towards the end of the 1980s). The attitudes of law enforcement authorities in the U.K. and the U.S. showed a similar evolution. There was no great enthusiasm for investigating the illegal activities of animal activists until they started causing significant property damage and threatening harm to individuals.

The question of the "justice" of legal protests and illegal actions in a democratic society is not an easy public policy issue. It is generally recognized that civil disobedience (see table) does have a place in a democracy and that even non-persuasive tactics, aimed simply at changing behavior (rather than opinion and then behavior), can be justified. Nevertheless, even legal protests aimed at specific individuals can be very intimidating. The Montgomery County Council in Maryland struggled for a long time with attempts to develop
legislation that would prevent the picketing of a research scientist's home by animal activists without contravening "free speech" protections under the Constitution. Clearly, the council views the picketing of an individual as unacceptable although the picketing of an organization would be unlikely to rouse the council to similar action.

The limits of protest and direct action in a pluralistic and democratic society are not easy to determine. Clearly, most legal protests are viewed by society as acceptable and some illegal actions have even been viewed as acceptable law-breaking. The limits of appropriate civil disobedience have been the focus of considerable discussion (e.g. Rawls, 1971; Applbaum, 1991). For example, civil disobedience must be a public act, aimed at changing peoples' attitudes (persuasive civil disobedience), or aimed at changing peoples' behavior but not necessarily their attitudes (non-persuasive civil disobedience).

In the past, acts of civil disobedience have been used to challenge racial segregation and other discriminatory laws and those who led those challenges are now regarded as American heroes (e.g. Martin Luther King and Rosa Parks). Even the theft of property is sometimes viewed as justified (e.g. Daniel Ellsberg and the Pentagon Papers) although there is plenty of room for argument. However, destruction of property and actions aimed simply or largely at intimidating or harming individuals have rarely if ever been regarded as acceptable by a democratic society outside a declared war.

The targeting of an individual outside the support structure of the institution he or she represents is, even if legal, unlikely to be viewed as acceptable by society, or even by many animal activists, because it carries such a heavy burden of intimidation. As long as animal research is sanctioned and supported by society, then protest should be aimed at the relevant institutions
and not specifically at the individuals who belong to those institutions. However, the situation is not that clear in other areas of animal use where it is the individual choice and behavior that is perceived to be objectionable as much as the industry that supports it (e.g., fur wearing). Clearly, more thought and discussion on the limits of acceptable action in pursuing animal liberation goals is necessary.

Some animal activists do regard the liberation of animals as tantamount to a war, but, as long as they subscribe to the basic and defining premise of animal liberation - namely, not harming or causing suffering to other sentient beings, their campaign tactics should incorporate the same principle. Because humans are sentient beings, they must be given at least as much consideration as the animals.

F. CONCLUSION

The current debate over the use of animals in research may be intense but it is largely unproductive. The assumptions that both sets of protagonists have about each other are generally false and obstruct constructive discussion. While there are always likely to be intense feelings about animal research, it is not necessary to assume that progress toward a broad public consensus is impossible. Some progress has already occurred although more by accident than by design. Formal mechanisms should be established where free and open discussion of the issues that concern both sides is initiated and encouraged between both sets of protagonists.

Colin Blakemore, an Oxford physiologist and vision researcher has spoken out in support of animal research but not without cost. Apart from receiving the usual hate mail, his daughters have also been threatened with kidnapping and death. On December 23, 1993, Blakemore also received a letter bomb filled with needles which was defused by the police. However, when Vernon Coleman, a U.K. animal activist, said he was going to publish Blakemore's home address and telephone number, other activists condemned Coleman for being highly irresponsible. The British court system agreed and awarded a gag order preventing Coleman from proceeding with his plans. (Seachrist, 1994)