

What is needed in order to end vivisection?

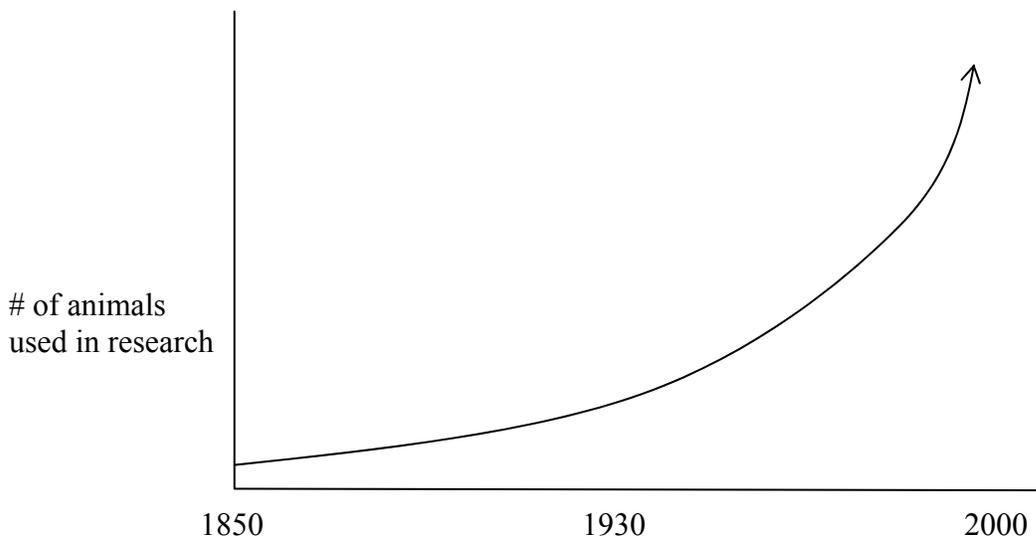
Ray Greek MD

Ever since puberty, I have believed in the value of two things: kindness and clear thinking. At first these two remained more or less distinct; when I felt triumphant I believed most in clear thinking, and in the opposite mood I believed most in kindness. Gradually, the two have come more and more together in my feelings. I find that much unclear thought exists as an excuse for cruelty and that much cruelty is prompted by superstitious beliefs.

Bertrand Russell. British philosopher and mathematician.

Introduction

Since its modern introduction in the 19th century, many in society have opposed vivisection. Despite what has, at times, been widespread and, at times, violent opposition, the antivivisectionists have been unable to stop vivisection. If one envisions a graph (see below) plotting the number of animals used versus time measured in decades since 1850, one would see a steady rise in the numbers of animals. What is needed to end vivisection?



Vivisection comes from the Latin *vivus* (alive) and *sectio* (cutting) and literally means the cutting up of the living. Although at times used to describe dissecting living humans for scientific (or more likely pseudoscientific) purposes, the word is used almost exclusively by animal protection organizations to describe scientific research performed on nonhuman animals or the use of nonhuman animals in any area of science. Three organizations exist in the USA ostensibly devoted solely to ending vivisection: the

American Anti-Vivisection Society (AAVS) located outside of Philadelphia, the New England Anti-Vivisection Society (NEAVS) in Boston, and the National Anti-Vivisection Society (NAVS) in Chicago. Numerous comparable organizations exist in Europe and elsewhere. The National Anti-Vivisection Society (sharing the same name as the US version but in reality a separate organization) and the British Union for the Abolition of Vivisection, both in the UK, along with similar organizations in France and elsewhere have roots dating back to the 1800s.

Animal rights and animal welfare groups also focus on ending vivisection. Examples would include People for the Ethical treatment of Animals (PETA) headquartered on the east coast of the US and In Defense of Animals (IDA) on the west coast. The largest professed animal protection organization, the Humane Society of the United States (HSUS) also, to all appearances, campaigns against vivisection.

The annual budgets of all the US organizations ostensibly seeking to end vivisection total well over \$100 million. With all this money and all these organizations one would think using animals in science would be going the way of the pocket calculator but such is not the case.

Animal welfare and animal rights groups along with anti-vivisection groups (which we will refer to collectively as animal protection organization (APOs)) frequently commit fallacies of reasoning and misunderstand or misrepresent scientific facts when confronting the use of animals in science. As we will see in other essays, there are also reasons to believe that not all APOs are actually interested in ending vivisection. In this essay we will attempt to answer the question: What is needed to end vivisection? We will specifically focus on why the historical approaches to ending vivisection have not worked.

What makes people tick?

Vivisection raises two main questions from an animal protectionist's perspective. The first is a philosophical question – Is it right? and the second is a scientific question – Is it effective? Regardless of the question asked, if one wishes to change society the issue of tactics must be addressed. Which tactics most efficiently result in societal change?

The idea behind the philosophical objections to animal experimentation is obvious. Vivisection hurts animals! The concept is very easy to communicate as one picture is worth one thousand words. But humans fear their own mortality [1-7] and telling them that something, that they believe is going to prolong their life, should not be done is problematic. A vast majority of humans will never choose the life of a mouse or monkey over their child. To the best of my knowledge, this has never happened in human history.

As a physician, I have many times observed people face death and witnessed their reaction to the possibility. I have also seen people's behavior change because a more immediate death became a possibility. Make no mistake, facing one's own mortality changes things. I have also seen people behave in a certain fashion, do things they would rather not do—eat healthy food, exercise regularly, and so forth—in order to avoid an earlier death. Consciously or subconsciously, death is on our minds. I would have thought most people intuitively know that fear of death is a major motivating factor in human's behavior. Unfortunately, observing the animal protection movement and studying it from its inception in the 1800s, it appears that this is not as intuitive as I had anticipated. Those who understand that fear of death, conscious or subconscious, accounts for much of why

we act as we do, can skip this section. But those who believe that vivisection can be ended merely by pointing out how much animals suffer should read on.

There are many books addressing the consequences of humans' awareness of their own mortality. I find Becker's work to be insightful and will outline it and work done on it after his death. Ernest Becker wrote his Pulitzer Prize winning *The denial of death* [7] in 1973. Becker's theme was that death or denial of death was the major motivator of human behavior. Further research revealed that despite spending large amounts of time and energy in the attempt to deny death, when confronted with their own mortality humans react in a specific and predictable way. A nice summary of Becker and further research is provided by Solomon, Greenberg, and Pyszczynski [6]. While Becker's ideas and the work of Greenberg and colleagues are much more extensive and encompasses and implies much more conceptually, the concept that concerns us is that humans cannot cope effectively with their own mortality and that this is a colossal motivating factor in how they act in situations that force them to deal with it.

Building on Becker, Greenberg and colleagues studied humans and found that when confronted with their own mortality, humans changed their behaviors in order to engender "more positive responses to those who uphold important cultural values and well as more negative responses to those who transgress against them" [6]. Solomon, Greenberg, and Pyszczynski:

This finding [from a study of judges] provided strong preliminary support for the proposition that mortality salience [acute awareness of one's own mortality] engenders a greater need for death-denying cultural worldviews . . . [6]

The work of Greenberg and colleagues demonstrates that when humans confront their own mortality they become more selfish and intolerant of other worldviews. The very topic of medical research entails mortality salience for humans as it forces them to dwell on how their lives might end. Therefore, it should not be surprising that their instinctive reaction is to embrace anything that offers them the comfort of denying, at least for a while, their death. Vivisection offers two related escapes: 1. It offers the hope of denying death and 2. it is done away from mainstream human activity so humans can be assured (at least subconsciously) that someone somewhere is working on preventing their death without having to actually see and be reminded of their mortality.

If the animal protectionist is to end vivisection she must deal with the fear of death issue.

Obviously there is more to being human than fear of death. Drives such as sex and greed figure largely into why humans do what they do. Further, there are more books and papers on fear of death, sex, greed and the implications thereof than merely the ones I have listed. But the antivivisectionist is confronting a very specific area of humanity—avoidance of sickness and death—and both conventional wisdom and history have shown that humans are very unlikely to allow change that diminishes their chances of survival. We will look at some of that history now.

History of Antivivisection

George Santayana said: "Those who cannot learn from history are doomed to repeat it." Historically, the most effective and ubiquitous tool in the armamentarium of those who

seek to use animals in science in any fashion that they wish has been to cast those opposed to such use as sentimental nonscientists AKA *little old ladies in tennis shoes*. By this, they mean people who, while well meaning and certainly of no threat to society, are so uninformed that their opinions can be ignored. Science is largely responsible for the lifestyle advances society has witnessed over the last two centuries and vivisectors can cloak themselves in the aura of science. Most of the time that is all that is necessary to convince society that vivisection is necessary. Vivisectors win and little old ladies in tennis shoes lose. The scientific community certainly uses this propaganda and all animal-using groups justify, in some fashion, their use of animals by appealing to science. Those who earn their livelihood from killing cows and chickens for food consumption accuse vegetarians of being anti-jobs and anti-health, because, as they explain, “All scientific data shows that eating meat is necessary for life.” Groups that use animals in other ways make similar arguments. Further, those in favor of vivisection are cast as *scientists*, priests to the gods of knowledge and truth. Anyone who opposes their views is dismissed as naïve at best, and more probably, quite stupid. While this propaganda is just that, propaganda, it has never-the-less been very effective.

Unfortunately, the accusation that the animal protection movement *per se* is composed of “old women albeit of both sexes” and “little old ladies in tennis shoes” has some merit. Many APOs and their supporters have historically been anti-science at least to a degree. Many artists, writers, and poets such as Shaw, Tennyson and Browning were active in antivivisection societies and were suspicious of and often overtly hostile to science. Furthermore, there is no doubt that, historically, most involved in animal issues have been women. Many of these women saw animal abuse as part of a larger issue that included slavery, spousal abuse, gay bashing, the domination of the few over the many and the strong over the weak and so forth. Unfortunately, many in this same group historically also opposed science in general on the grounds that it made some of these situations worse. Not many people think the advances in science that led to factory farming, the atomic bomb and so forth were science’s finest moments. There can be no doubt that scientific advances have been used in areas that have resulted in suffering. (Unfortunately, many of the people who hold science in very low regard seem to forget that science also gave us medical treatments and cures like antibiotics and vaccines, and many other things that have decreased suffering.) To add more fuel to this fire, few scientists speak out against the scientific problems of using animals to model humans thus justifying in some minds their low opinion of science in general.

But on to history.

In early 20th century Britain, opposition to experiments on animals was at its zenith. Opposition was found among all groups and social classes. Almost every person of note and almost every social class including the aristocracy opposed it. Many of the most influential writers and clergy of the day publicly decried the practice. A political milestone was obtained when the 1909 World Congress of the Anti-Vivisection movement obtained the endorsement of the Labour Party. When the Labour Party achieved power in the election of 1929, the stage was set to abolish vivisection in Britain once and for all. What happened? Basically, the same thing that had happened a quarter century before. Speaking of the original version of the 1876 Cruelty to Animals Act in Great Britain, Judith Hampson wrote:

Had this Bill become law both biomedical science and antivivisectionism in the twentieth century might have been very different. However, at the 'eleventh hour', when the Bill had almost completed its passage through Parliament, a small core of experimental physiologists succeeded in mobilizing almost the entire medical profession against it. While Lord Carnarvon, in whose hands the Bill lay, was called away from London by the illness and subsequent death of his mother, a deputation of over 300 medical men descending upon the Home Office resulted in amendments to the Bill, which were so substantial as to change its fundamental nature. The objectives of the research and medical communities were to render the Bill 'innocuous' so that it might serve the purpose of soothing the agitated public while imposing no real restrictions on fundamental medical research.[8]

The experimental physiologists of that era are what we would call *animal experimenters* or *vivisectors* today. They had built their careers and reputations on their experiments and thus had a huge vested interest in the process. They persuaded their physician colleagues to lobby against the bill and, not for the first or the last time, the politicians were convinced that these white-coated *gods* knew what was best for England. When push came to shove, the physicians and scientists threatened the nation with their lives: "Take away vivisection and people will die. Science says so." And science won.

John Vyvyan wrote about this event:

1929 was a year of much interest to the movement. In June, a Labour Government took office; and almost the entire Cabinet were known to be opposed to vivisection. The posts of Prime Minister and Home Secretary were filled by Ramsay MacDonald and J. R. Clynes. Philip Snowden and Arthur Henderson were also ministers. And all four of them, in July 1909, had been vice-presidents of the London Congress of the World League against Vivisection. They had not changed their convictions on the subject. And in 1909, it will be recalled, the congress sponsored by Louise Lind-af-Hageby had also received the support of the whole Parliamentary Labour Party. It was therefore not unnatural that those who had the cause at heart were expectant.

A question and answer in the House of Commons early in July were a disappointment, and one of the anti-vivisection societies consequently sent a reproachful letter to the Home Secretary. His reply concluded as follows:

'I doubt whether any Minister could ever undertake public responsibilities in a Department covering a great variety of work, if in all respects he had to harmonize his public duties with his private opinion.
Yours sincerely, J. R. Clynes' . . .

Clynes had not changed his private opinions on vivisection, nor had his colleagues in the Cabinet; but his conception of public duty was to allow himself to be used, in spite of his beliefs, as a mouth-piece by the officials of the department of which he was in charge. And he was pliant to the full extent of upholding in public the opposite of what he privately considered to be right.[9]

Clearly 1929 was expected to be a good year for antivivisectionists. But then politics reared its ugly head. Vyvyan continues:

The first occasion, early in July, was a renewed attempt to obtain the exemption of dogs from vivisection. Numerous efforts to this end had been made without success - notably in March 1912 - but the advent of sympathetic ministers had revived hopes for this legislation. Clynes had then given another revealing answer. *It was the duty of the government, he said, to be guided by the 'best possible advice'*. As no one will dispute that, it raises only one question, By whom is the government advised on this matter? In the first instance, of course, it is by the special department of the Home Office; but Clynes did not mention that. He said that he would not bring in legislation for the exemption of dogs, because the previous government, in 1927, had been advised against it by the Medical Research Council.

It is evident that the Medical Research Council [which was composed of vivisectors] could not have advised anything else. It would never recommend that any right whatsoever that researchers already possess in law should be relinquished. It is the advocate of one party; and its memoranda, as a matter of course, state only one side of the case. It has the right to be heard; but, as Clynes well knew, there are two parties to this suit . . . It was this situation that determined the answer that Clynes gave in the House of Commons. The government's advisers were - and they still are - purely scientific; they were - and they still are - merely counsel for one party. As long as they remain the government's only advisers, the Act will never be amended in the interest of the other party. If the law is changed at all, it will be in favour of research. This is contrary to the spirit of the Royal Commission's Report, which should have inspired both the original legislation and any subsequent proposal for its amendment . . . *And half a century later, in 1957, a Home Secretary (the present Lord Butler informed Air Chief Marshal Lord Dowding that the government would not lift a finger in this matter without the approval of its advisers . . .* It is now possible to understand an otherwise inexplicable phenomenon - a government composed almost wholly of antivivisectionists defending in parliament the use of dogs for vivisection. It was being guided, according to its Home Secretary, by the 'best possible advice'.^[9] [p127] (Emphasis added.)

The government defended their legalization of the use of dogs as follows:

'It has been [the Memorandum upon the Dogs Protection Bill, issued by the Medical Research Council, June 7, 1927 asserted] by the use of dogs that the chief foundations of our knowledge of the processes of digestion, the circulation of lymph, the work of the heart, and the circulation of the blood have been laid. Large and essential parts of our knowledge of the science of feeding are based upon the results of trials made in the feeding of dogs. The work of the surgeon, whether upon the brain and spinal cord, or upon the intestine, or upon the chest,

has been made possible by experiments on dogs. Methods of life-saving, as by the transfusion of blood or in the resuscitation of the apparently drowned, have been worked out chiefly by trials with dogs. Important parts of our knowledge of anaesthetics and their safe administration, and of the actions of many kinds of drugs, have been gained by the experimental use of dogs. There is no medical practitioner who does not use in his daily work information which he owes to experiments upon dogs. If he is to understand the meaning of such common symptoms as palpitation, breathlessness, giddiness, fainting, and many other forms of distress, if he feels a pulse or listens to a chest, if he transfuses his patient with blood, or employs rectal feeding, he is making wholesale use of knowledge derived from experiments upon unconscious dogs.[9]

Once again the vivisectors, through the government, said: “Your child or your dog.” Politicians and the public were willing to accept the assertions of the sole group that benefits from animal experimentation, those whose livelihood is based on it. This has not changed. Society as a whole is intimidated by science and it has little recourse when misled by those who claim to know its mysteries.

This historical example is representative of the past and present relationship between science and many in APOs. Science and those who side with science win; those who rely on ethics and or philosophy or religion lose when they compete with science. Such has been the case since Copernicus, Galileo, and Darwin. The Foundation for Biomedical Research, a Washington, D.C., nonprofit dedicated, according to its Web site, to promoting “humane and responsible animal research” for human and veterinary health, knows that science wins and thus concentrates on defending vivisectors against the scientific criticisms, not the ethical. They have created advertisements promoting animal testing as the “backbone of biomedical research.”[10] Vivisection has essentially always been considered a *necessary evil* and necessary trumps evil in the 1876 Cruelty to Animals Act in England, again in the 1929 Cruelty to Animals Act in England, and in the 21st century everywhere. APOs like to assume that all that is lacking in the debate about using animals in science is an understanding from society and or the scientific community that animal use is *cruel*. They are confident that they need only illuminate the cruelty and animal use will disappear. Time and time again this attitude has been shown to be nonsensical.

Numbers of animals

In 1959, what appeared to be a small step forward in ending vivisection occurred when Russell and Burch introduced the concept known as the *Three Rs*. Russell and Burch suggested that each experiment involving animals be evaluated by using three principles each beginning with the letter R: **R**educe, **R**efine and **R**eplace. Reduce the number of animals used. Refine the procedures to be less painful. Replace animals with nonanimal modalities. APOs seized this apparent breakthrough like a drowning man clutching a life jacket. While I will address the Three Rs and the organizations that promote them in [*How animal protection groups are delaying the end of vivisection*](#), now is a good time to analyze the fruits of the Three Rs.

How many animals are used annually in research in the US? Below is from a report prepared by the Federal Research Division, Library of Congress under an Interagency

Agreement with the United States Department of Agriculture's Animal Plant Health Inspection Service 2000. (While not all of the animals discussed below will be used in labs a vast majority will be so used.)

Assembling and editing a reliable database for rats, mice, and birds used in research, breeding, exhibition, and transport in the United States is a monumental task. The final product endeavors to be a refined, well-organized, and useful compilation of a large portion of data on these species. Of the 6200 records in the database, almost 400 individuals and/or organizations were contacted by telephone and, based on published research, another 300 were identified as likely to have rats/mice/birds. Some 5500 organizations could be contacted or researched concerning their involvement with rats/mice/birds. Additional research should be done to fill out certain areas of the database, such as bird breeders, research centers in corporations, independent laboratories, secondary schools and small colleges doing research, individual labs within the government departments already identified, and exhibitors outside the major zoos, in particular. This database identifies a maximum of 1.2 million rats, 4.2 million mice, and 1.9 million birds. Despite the considerable work put into the database to date, a great deal of more work would be required to account for an estimated 500+ million rats/mice/birds that could potentially be added to the Animal Welfare Act should the proposed amendment be adopted.[11]

Madhusree Mukerjee, former editor of *Scientific American* writing in the August 2004 issue:

In truth, animal welfare legislation and public concern are both more focused on pain than on death itself. Philosophically, the "cost" of death hinges on the worth of an animal's life. Anyone who has tried to stomp on a cockroach will have gained the impression that even such a lowly creature cherishes life. But how does one measure this value? The question has become critical with a recent explosion in the numbers of transgenic mice—close to 100 million are consumed a year in American labs alone. [12]

Mouse sales amounted to over \$200 million in 1999. Charles River Laboratories of Massachusetts sold over \$140 million of animals in 1999. Experts estimate that Harlan Sprague Dawley of Indianapolis sold over \$60 million in animals in 1998 and Taconic \$36 million. TJL, a not-for-profit taxpayer funded corporation sold \$29 million worth of mice alone. Mice with specific genes missing cost from \$100 to \$15,000. [13]

The percentage of NIH funding spent on animal-based research is largely unknown. Below is a report from 1985. Mammals alone amounted to roughly 45% and if that number is combined with a fraction of the category that includes nonmammalian vertebrates (other) the number easily goes over 50%.

Table 4-1. Distribution of NIH Support of Extramural Research Among Humans, Laboratory Mammals, and Other Research Subjects, Expressed as Percentages of Total Dollars and of Total Projects and Subprojects.^a

<u>Subject</u>	<u>Fiscal Year</u>	<u>Extramural Research Dollars, %</u>	<u>Total Projects and Subprojects, %</u>
Humans	1977	27.5	32.4
	1978	26.8	31.2
	1979	26.8	29.2
	1980	25.0	28.9
	1981	23.8	29.7
	1982	23.2	31.5
	1983	22.9	32.2
Mammals	1977	43.5	41.9
	1978	44.0	42.5
	1979	44.9	43.8
	1980	45.0	44.2
	1981	47.3	44.1
	1982	48.1	43.5
	1983	47.9	42.7
Other ^b	1977	29.4	25.6
	1978	29.3	26.3
	1979	28.2	27.0
	1980	29.8	26.9
	1981	28.9	26.0
	1982	28.7	25.0
	1983	29.2	25.1

^a Unpublished information provided by Division of Research Resources, National Institutes of Health.

^b This category includes invertebrates, nonmammalian vertebrates, bacteria, viruses, mathematical and computer simulations, and other subjects.

The European Union Scientific Committee has recently released a report on using nonhuman primates in research and drug testing. An article [14] has summarized the highlights, some of which I reproduce below:

- Every year, more than 100,000 monkeys and apes are used for biomedical research around the world.
- Because primates have close and sometimes unique similarities to humans, their use is still deemed necessary in the safety testing of new pharmaceuticals and in several areas of biomedical research.
- However, the principles of reducing, refining and replacing the use of non-human primates in scientific testing are supported as ways to minimise their use without compromising the quality of scientific work.
- At present, there are no valid scientific arguments to stop using primates for drug safety testing and scientific research in several areas, such as research on infectious diseases and on the brain, but this position should be regularly reviewed as new alternatives are constantly being developed.

The report continues to sing the praises of the Three Rs and assures the reader that they support the Three Rs.

Several issues raised by this report deserve to be addressed.

1. According to the International Primate Protection League [15], based on figures reported by the US Fish and Wildlife Services, the number of nonhuman primates imported into the US has increased from 18,650 in 2003 to 28,091 in 2008; an increase of roughly 50%. Once again, no thinking person can look at these numbers and take seriously any claim by so-called animal protection groups that the Three Rs, specifically reducing the number of animals, is actually working or being taken seriously by industry.

2. This sentence summarizes the report: “At present, there are no valid scientific arguments to stop using primates for drug safety testing and scientific research in several areas . . .” In light of the fact that nonhuman primates are *not* predictive for human response, I can see no scientific justification for this statement. The reason animals are used in drug testing is precisely in order to predict human response. The assertion that “there are no valid scientific arguments to stop using primates for drug safety testing” is scientifically completely indefensible and can only be viewed as a lie spoken by people seeking to reassure the unsuspecting general public that animal testing must continue.

3. Once again we see the Three Rs being used to support the vivisection agenda. Once again, this severely calls into question the motivation of those supporting the Three Rs for drug testing and disease research.

The *London Evening Standard* reported that the number of animal experiments in Britain rose by 14 per cent in the year 2008:

Rodents accounted for 77 per cent of the experiments. Tests on primates rose by 16 per cent and more fish, mice, amphibians, pigs, sheep and turkeys were used. However, less than one per cent of procedures involved primates, dogs, cats or horses. Home Office minister Lord West today defended the rise, claiming it was necessary to improve healthcare.[16]

The number of animals used in the US and Europe in 1959 is not known for certain but we estimate it to be well less than 10 million. Today that number approximates 500 million. Clearly the number of animals used in research has skyrocketed since the introduction of the Three Rs.

Further, the numbers referred to in the *London Evening Standard* must be viewed in perspective. The people of the UK are, based on our experience there, quantitatively the most concerned about using animals in vivisection. This can also be seen as in responses to polls and numbers of people attending debates and protests. The UK is also home to Three Rs. Russell and Burch were both British and FRAME, arguably the largest and most influential Three Rs organization, is located in England.

In America, using animals in science is at best a back burner issue. In the UK it is on the front burner. When I have visited the UK for lectures and debates I have routinely met with members of parliament (MPs) and other government officials. The issue is so important to their constituents that MPs felt pressure on them to meet with me. I have even had meetings with committees in parliament. In the UK, there is ethical outrage over vivisection among much, if not most of the population.

If the number of animals used in vivisection is increasing in the UK, then that alone should give one pause when considering whether the Three Rs can ever be successful under any circumstances anywhere.

Public Attitudes

On Thursday July 9, 2009 The Pew Research Center in combination with the American Association for the Advancement of Science (AAAS) released the results of a poll measuring how scientists and the general public feel on numerous science-related issues [17].

The poll offers many interesting findings but what we found the most interesting was that only 52% of the general public in the US surveyed said they favored “the use of animals in scientific research” while 43% opposed such use and 6% responded “don’t know.” Roughly 49% of the public either opposed using animals or refused to say they favored such use. (See tables below.) This means American are divided roughly 50:50 on using animals. This is a new record for America but does not approach the level of opposition in 19th and early 20th century England.

	Public %	Scientists %
The use of animals in scientific research		
Favor	52	93
Oppose	43	5
Don't know	6	2

Gender Divide over Using Animals in Research		
	<u>Favor</u> %	<u>Oppose</u> %
Total public	52	43
Men	62	33
Women	42	52
18-29	39	58
30-49	55	38
50-64	52	44
65+	61	33
College grad+	59	36
Some college	49	46
HS or less	49	46
Republican	62	33
Democrat	48	48
Independent	51	44
Figures read across.		

This poll is significant for many reasons.

1. Support of merely 52% of the general public is an all time low for animal-based researchers. Outright opposition by 43%, leaving 6% undecided indicates the tide is turning against using animals in research in the US.

2. The poll was conducted by a very reputable polling organization in combination with the premiere scientific organization in the US, the AAAS. The AAAS has gone on record as being in favor of animal-based research and has supported animal-based research in numerous editorials. If anything, this poll would be expected to be biased in favor of using animals in research.

3. This poll must be viewed in light of past polls. In 1999 MORI conducted a poll in association with *New Scientist* that was published in *New Scientist* on May 22, 1999. The poll was conducted in the UK, a country historically less favorable to using animals in research than the US. When respondents were asked whether they favored using animals 24% answered yes while 64% said no. But the pollsters then broke the questions down into several categories. When the potential benefits of using animals were first explained to the respondents, the percentage that agreed animals should be used rose to 45% and the percentage that disagreed fell from 64% to 41%.

Most people continue to feel that vivisection is a necessary evil.

What is needed to end vivisection

Even if one disagrees with Becker and his intellectual descendants' interpretations of what motivates us, one cannot deny the importance of death in shaping reactions and attitudes. A vast majority of humans are never going to trade their life for that of another human much less an animal and this cold, hard, undeniable fact has implications for ending vivisection. Vivisection is not going to end by forcing society to look at photos of monkeys in cages or dogs being poisoned or bunnies having cosmetics applied to their eyes. Humans fear their own mortality and will stop at nothing to postpone it. Nor is asking society to gradually reduce what it perceives as life saving research going to end vivisection. Both of these tactics are naïve at best. Einstein said the definition of insanity is "doing the same thing over and over again and expecting different results." Asking society to value altruism over and above its love for life has not been effective and will never be.

In order for vivisection to end, society must be educated to the fact that animal models are not predictive for humans; that animals are not going to result in scientists finding cures and treatments that will prolong their lives thus postponing their own mortality. **This is what Americans For Medical Advancement does!** The antivivisection and animal protection movements are lucky in that animal models are not predictive for humans. Were it not for this fact, such movements would be forced to fight a losing battle in the attempt to convince people to trade their life for the life of an unknown animal. Such is simply not going to happen.

Furthermore, there are many things that APOs and others focus on that are *not* needed in order to end vivisection. 1. There is no need for *alternatives* to animals when used to predict human response as animals cannot predict human response. (For more see [How](#)

[animal protection groups are delaying the end of vivisection.](#)) Society does need predictive modalities but the lack of such does not justify continuing a failed practice. 2. Vivisection does not persist because scientists are waiting for humans to volunteer to test new drugs. Altruistic humans asking if they can take the place of an animal, while kind hearted, simply do not understand the problem. 3. Where animal use is scientifically tenable it is also of minimal importance. Vivisection does not continue because society feels strongly that dissection and using animals as heuristic devices is vital. It continues because society wants to live forever and they see animals as predictive models that can possibly help them attain that goal. 4. Vivisection does not continue because there are not yet computer models that completely replicate human physiology. Such computer models are not even on the horizon for the next century despite what one may read or hear from the media. 5. Similarly, vivisection does not continue because veterinarians need to vivisect animals in order to cure pets. They could, and do, conduct research with animals just like physicians conduct research with humans. Focusing on these red herrings consumes resources and indirectly aids the vivisection industry by acknowledging that vivisection is scientifically tenable vis-à-vis predicting human response.

If animal protectionists want vivisection to end they need Americans For Medical Advancement. AFMA is a mainstream science-based research and educational institute dedicated to improving policy and decision-making regarding the use of the animal model in biomedical research. AFMA opposes animal-modeled research as a predictive modality for seeking cures and treatments for human disease based on overwhelming scientific evidence that findings from animal models cannot be reliably extrapolated to humans. We demonstrate, through rigorous research and analysis, that the reliance on animal-modeled research prolongs, rather than eases, human suffering by inhibiting medical progress and diverting funds from more effective research modalities.

AFMA is the answer!

AFMA's philosophy is as follows:

1. AFMA acknowledges that studies show mortality is humanity's primary concern and as such is a roadblock on road to ending vivisection. AFMA attempts to point out a win/win situation to the public. If society replaces vivisection with effective research methods then both humans and animals win.

2. We choose to focus the public's attention on the honey of curing disease, not the vinegar of taking something away, which is how the philosophical arguments made by animal protectionists have usually been perceived.

3. Tactics that will end fur farming and other animal protection issues will not end vivisection. Educating society about veal will result in many people not eating veal. Educating society about the atrocities of vivisection has not ended it or decreased the number of animals used. If vivisection is to end society must be shown that vivisection is not in their best interest—raising awareness of the problem is inadequate.

4. AFMA is opposed to the Three Rs since, scientifically speaking, there is no reason to reduce or refine a technique that is scientifically invalid.

5. Vivisection is a national / international issue. It cannot be ended on a local level hence should not be fought there.

6. AFMA is a pro-human organization therefore there is no conflict of interest vis-à-vis animal rights versus human rights. (Currently 2 out of the 4 AFMA board members eat meat.) As such we have credibility.

7. We also have expertise. Nonscientists speaking out on the invalidity behind the science of vivisection are not credible in the public's eyes and they are certainly not credible in the eyes of scientists in general. Even most physicians and scientists who associate with the animal protection movements are not competent in this area.

8. The only way vivisection will ever end is by science education. The victories we have seen over the past few years have been because of scientific hence mortality concerns not ethical concerns. Wyeth has dramatically reduced the number of horses used to produce Premarin because scientific studies revealed Premarin was doing more harm than good and the Cambridge Primate Center was not built because of concerns about security and the scientific issues we raised during the Public Inquiry.

Everything scientifically necessary to prove animals cannot predict human response to drugs and disease is at hand. We have the arguments, the facts, the data, and the expertise to explain them. **Vivisection does not continue because science and society are waiting for some scientific breakthrough to replace it or to prove it does not help predict human response to drugs and disease. The evidence is in and AFMA is the only organization promoting and explaining it to society.** Ignore fund raising efforts by scientifically illiterate groups asking for money to end vivisection by exploring alternatives. Vivisection does not continue because of lack of alternatives. (See [How animal protection groups are delaying the end of vivisection.](#)) You should also ignore fund raising letters from animal protection groups emphasizing they want to show society how much animal suffer. Society already knows, they just don't care!

If AFMA can educate society about the inability of animals to aid scientists in finding treatments then vivisection will end!

What you can do:

1. Stop kidding yourself by thinking that if humans just understood how *cruel* vivisection is, they would oppose it. Accept the fact that humans fear their own mortality and this motivates them in many ways. Funding PETA and HSUS will not end vivisection.
2. Realize that as long as society feels vivisection is necessary, no animals will have rights, as there will always be the possibility that any animal may be needed for research. Society is not going to limit its options vis-à-vis medical research that could be life saving. Whether your goal is rights for animals or ending vivisection, neither will happen as long as society believes animals are necessary to find cures for human diseases. Funding PETA and HSUS will not end vivisection or result in rights for animals.
3. Fund AFMA. We cannot use photos of cute cuddly animals on our fundraising letters (a tried and true method for raising money) and our message is all about science hence is perceived as dry and boring to many. *But we are the answer!* In order to function we need money.
4. Help AFMA. We are the experts and we are pro-human so let us interact with the scientific and regulatory bodies. Refer questions, of a scientific nature vis-à-vis vivisection from the media, to AFMA. Let us be your science division. Promote AFMA materials e.g., [our books](#). Help us network with groups and individuals relevant to this discussion. Find veterinarians, physicians, or PhDs that are sympathetic and have them visit our website. Arrange debates in your community. The media likes controversy and will turn out and cover a debate. Arrange small

gatherings with influential people where we can network and fund raise. Help us network with media for op-eds, appearances and so forth. Contact patient advocacy groups you know or are associated with. We think groups like the Alzheimer's support group, the Parents of Children with Brain Cancer, and similar patient advocacy groups would be receptive to our message. Put AFMA on company's matching donor list. Donate our books to local libraries. Many libraries will order the books if requested.

In the event that the above has not been blunt enough . . .

AFMA exists as a prohuman organization. That being said, we think we can end vivisection faster than proanimal organizations because we address the mortality issue which is the real reason vivisection persists. Granted, many other factors influence the persistence of vivisection: ego, money, inertia, tradition and so forth. But the root of vivisection lies in humankind's fear of dying and we alone address that issue. Animal protection organizations such as PETA and HSUS not only avoid, and even deny, this issue but actively pursue an agenda guaranteed to fail. We alone explain why vivisection is not going to bring cures for humans.

We want people to fund AFMA because they want to see more cures for humans and sooner rather than later. But we also think animal protectionists should seriously consider funding us because, although it is not our primary goal, we think we can accomplish your goals while HSUS, PETA, and others have not and in fact, cannot.

Prohuman or proanimal: AFMA is the answer!

References

1. Daniel L: **Reaction to Mortality: An Interdisciplinary Organizing Principle for the Human Sciences.** *Zygon* 1998, **33**:45-58.
2. Daniel L: **An Ernest Becker Bibliography.** *Zygon* 1998, **33**:87-90.
3. Eugene W: **Ernest Becker and the Psychology of Worldviews.** *Zygon* 1998, **33**:71-86.
4. Neil JE: **Guest Editor's Introduction.** *Zygon* 1998, **33**:5-8.
5. Sally AK: **A Heroic Vision.** *Zygon* 1998, **33**:59-70.
6. Solomon S, Greenberg J, Pyszczynski T: **Tales from the crypt: on the role of death in life.** *Zygon* 1998, **33**:9-43.
7. Becker E: *The denial of death.* New York: Free Press NY; 1973.
8. Hampson J: **Legislation: A Practical Solution to the Vivisection Dilemma?** In *Vivisection in Historical Perspective.* Edited by Rupke NA. London: Routledge; 1987: 314-339
9. Vyvyan J: *The Dark Face of Science.* Micah Publishing; 1989.
10. **Campaign promotes animal testing as 'backbone of biomedical research'**
[http://www.pressofatlanticcity.com/news/press/atlantic/article_82c6a5b7-8d47-5b79-97af-da839a5ea117.html]
11. APHIS, MK G, K B, T C, H S, DL O: **Rats/ Mice / and Birds Database: Researchers, Breeders, Transporters, and Exhibitors. A Database Prepared by the Federal Research Division, Library of Congress under an Interagency Agreement with the United States Department of Agriculture's Animal Plant Health Inspection Service.** (USDA ed. Washington, DC; 2000.
12. Mukerjee M: **Book Review of *Speaking for the Animals*** *Scientific American* 2004, **August**:96-97.
13. Pennisi E: **A mouse chronology.** *Science* 2000, **288**:248-257.
14. **Press release: Recent scientific information examined by EU scientific committee**
[http://about.greenfacts.org/pressroom/press-releases/2009/090701-non-human-primates.htm?utm_medium=rss&utm_campaign=phthalates&utm_source=feedburner]
15. IPPL: *IPPL News* 2009.
16. **Animal testing essential to NHS, say ministers** [<http://www.thisislondon.co.uk/standard/article-23722312-details/Animal+testing+essential+to+NHS,+say+ministers/article.do>]
17. **Scientific Achievements Less Prominent Than a Decade Ago. PUBLIC PRAISES SCIENCE; SCIENTISTS FAULT PUBLIC, MEDIA** [<http://people-press.org/reports/pdf/528.pdf>]