ANIMAL EXPERIMENTATION

A Survey of Information, Interest, and Opinion on the Question among the General Public, High School Teachers and Practicing Physicians

NATIONAL OPINION RESEARCH CENTER
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INTRODUCTION

In October, 1948, national cross sections of the adult population, practicing physicians and public high school teachers* were surveyed with respect to their information about and opinions of animal experimentation in medicine.

Despite the fact that many medical schools and medical and biological research workers find that opposition to animal experimentation is strong enough to interfere with their work, the controversy has not, for the most part, become a general public issue. Familiarity with the mere fact of animal experimentation is, at best, sketchy among the general public, and people are, largely, unaware that opposition to it exists.

While there is a good deal of popular interest in new medical discoveries, relatively few people have concerned themselves with the techniques by which medical advances are made. Teachers, as a group, cannot explain the contribution made by animal experimentation to some of the leading medical discoveries of our time, and even many doctors are not informed about them.

Though there are these large areas of ignorance in public thinking, public sentiment endorses animal experimentation rather overwhelmingly. While there is some doubt and confusion when it is suggested that medical research may use animals they are fond of, or may be required to inflict pain on the animals, or may use them in ways the public is not aware of, these are not, for the most part, strongly-held convictions. Large majorities credit the good faith of medical research: they have no objections to the way animals are obtained and would explicitly sanction turning over stray dogs to medical schools; they believe that research animals are well cared for and that sincere efforts are made to spare the animals pain; they are willing to see regulation of animal experimentation left within the medical profession.

The very lack of any wide differences in thinking among different segments of the population, the negligible effect which familiarity with medical research and experiences with animals have had upon opinion, underline the degree to which animal experimentation is taken for granted. It would appear that it is simply assumed that human interests take precedence over those of animals, though it should be noted that the Hearst campaign against animal experimentation, which presents medical research as brutality for its own sake, has some effect on the thinking of the sections of the public it reaches.

From the standpoint of medical research, if combatting antivivisectionism is to be largely a matter of public education, the public must not merely be informed of facts about animal experimentation, but must be made aware of the reality of the resistance to it. For it is not that the public opposes animal experimentation, but rather that they do not recognize the need for their active support of it. At the present, not only is the public largely unaware of the existence of opposition to animal experimentation, but those who do

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*The sample sizes were: general public, 2,519 cases; practicing physicians, 485 cases; and high school teachers, 508 cases. For further details about the sample, see Appendix.

know of it are unconcerned, regarding it as an unimportant and ineffective manifestation. Teachers for the most part share this point of view, and even the majority of doctors belittle the importance of the antivivisectionists.

Nevertheless, doctors feel that antivivisectionism must be combatted through some form of public information program, and the general public may be receptive to such a program, since many of them feel that the subject of animal experimentation has not had proper public presentation. Both teachers and doctors are agreed upon the public's need for further enlightenment, though they have personally not done much to that end. Doctors are busy people, but their interest in medical research is such that many of them would take time to talk with their patients and to give them literature if they were made to feel some urgency about it. Teachers, too, are favorably disposed toward medical research and might be motivated to use their influence for it, if the need were made apparent to them.

I

INTEREST IN AND INFORMATION ABOUT THE FIELD OF MEDICINE AND ANIMAL EXPERIMENTATION

Prestige of the Medical Field

The field of medicine commands a great deal of public respect. The vast majority of the public feels that great progress is being made in medicine, and most frequently attributes it, often rather vaguely, to "research", one way or another. This public judgment is shared by doctors and teachers:

> "How much progress would you say there has been in the field of medicine and surgery in the last 25 years--a great deal, a fair amount, or hardly any?"

	General Population	High School Teachers	Practicing Physicians
A great deal	86%	92%	96%
A fair amount	8	8	4
Hardly any	2	*	-
Don't know	4	*	*
	100%	100%	100%

*Less than 0.5%.

"What do you think are the main reasons why medicine has made so much progress in the last 25 years?"

	Percent of those saying "a great deal"		
	General Population	High School Teachers	Practicing Physicians
Research, non-specific: it's the result of all this research, more research, etc.	31%	49%	50%
War: War speeds up discoveries, creates greater needs, greater opportunities, more funds, etc.	21	35	14
Favorable economic conditions: more money available for research, foundation grants, etc.	19	35	25
Improved professional training	19	12	19
New discoveries, techniques, drugs	17	12	24
Public consciousness, interest, expectations.	11	25	8
Natural progress	11	8	8
Moral qualities of doctors: dedicated, devote lives to research, etc.	4	5	7
Freedom, individual initiative	1	*	17
Animal experimentation .	1	1	3
Miscellaneous	1	3	2
Don't know what	7	*	*
Some gave more than one answer	143%	185%	177%

*Less than 0.5%.

Doctors, themselves, are highly regarded by the majority of the public as well, though some criticism of them as a class, especially with reference to their interest in money, is heard:

"What is your opinion of most doctors today?"

Well trained, competent	46%
Hard-working, conscientious	8
Friendly, interested, humanitarian	7
Miscellaneous and unexplained approval	14
Too mercenary	12
Cold, unfriendly, lack personal interest	8
Incompetent, poorly trained	6
Too narrow in training and outlook	5
Too much specializing	3
Miscellaneous and unexplained disapproval	2
Don't know, can't generalize	7
Some gave more than one answer	118%

"Do you think most doctors are too interested in making money from their patients or not?"

Most are	35%
Most are not	57
Don't know	8
	100%

Interest in Medical Developments

The public has, of course, a strong interest in medicine insofar as people wish to remain well and be cured when they are sick, and this is evidenced by the fact that 44% report themselves very interested in new medical discoveries while 82% are at least fairly interested:

> "How much interest do you take in new medical discoveries like the discovery of new drugs or new ways of treating diseases? Would you say you are very interested, fairly interested or not interested at all?"

Very interested	44%
Fairly interested	38
Hardly at all	17
Don't know	1
	100%

But this interest in knowing that advances in medicine are being made does not imply that people have concerned themselves with the means by which these advances are achieved, as may be seen from the contrasting result that 78% admit to having given little or no thought to the subject of animal experimentation prior to having been interviewed:

> "I wonder if you'd tell me how much you had thought about the whole question of using animals in medical experiments before today. Would you say a good deal, a little or not at all?"

A good deal	22%
A little	51
Not at all	27
	100%

General interest in medical developments is, of course, related to interest in the more specific question of animal experimentation, as shown in the following table. But even among those who said they were "very interested" in medical developments, only 36% reported that they had given "a good deal" of thought to the subject of animal experimentation.

	Percent with given amount of interest in animal experimentation among those with differing degrees of interest in medical developments:		
Thought about animal experimentation:	Very interested	Fairly interested	Hardly at all interested
A good deal	36%	15%	6%
A little	50	59	29
Not at all	14	26	65
	100%	100%	100%

The better-educated people are, by and large, most likely to be interested in medical developments and research techniques, but even among them only a quarter have thought a good deal about animal experimentation:

	Percent who are "very interested" in medical developments	Percent who have thought "a good deal" about animal experimentation
Educational level		
College	59%	27%
High School	45%	23%
Grade School	33%	20%

Given this orientation, it is not surprising that people for the most part are content to know that discoveries are being made which doctors will know how to apply in case of need and to assume, for the rest, that these are highly technical matters to be left to the specialists. This may be clearly seen in the extent of public information on these questions discussed in the next section.

Medical Information

The majority of the population claims some familiarity with the subject of animal experimentation. Their sources of information have been largely magazines and newspapers, with school and personal contacts with research less often mentioned:

"Have you ever read or heard anything about the use of live animals in teaching and research in medicine? Where did you hear or read about this?"

Yes	82%
Magazines	37%*
Newspapers	28
School work	10
General conversation, just talking to people	8
Personal experiences other than school: worked in, visited labs, etc.	5
Books	5
Contacts with medical profession	5
Radio	4
Movies	4
Medical Journals	4
SPCA, Humane Society or Antivivisection literature, ads, etc.	1
Miscellaneous	2
Don't remember where	4
No	17
Don't know	1
	100%

*This column adds to more than the 82% who had heard of animal experimentation because people frequently named more than one source.

Beyond this, however, their knowledge gets somewhat vague. Slightly over half could make some explanation of what the animals were used for beyond such very vague statements as "they experiment with them", but even those who did were frequently quite general and inexact in their formulations. As may be seen below, popular impressions largely center around the use of animals in testing new drugs:

"What sorts of things do they generally use live animals for in medicine? Is there anything else you know of?"

Discovering uses for new drugs, testing new medicines	41%
Studies of presently incurable diseases: cancer, etc.	10
Studies of diet, nutrition, body functions	6
Biological tests: Ascheim--Zondek, etc.	5
Development of new surgical procedures	4
Manufacture of drugs, biologicals, sera	4
Class-room demonstrations	2
Student practice in surgery	2
Vague answers like "experiment"	16
Don't know what	8
	98%*

Even when questioned directly about it, only 26% could correctly name a medicine made from animal substances:

"Do you happen to know of any medicine that is made from the organs or tissues of animals? What?"

Vaccines, sera, antitoxins	12%
Hormones	6
Insulin	5
Liver extract	3
Other glandular products: adrenalin, pituitary, thyroid	2
Miscellaneous correct responses	4
Incorrect responses	4
Knows there are some, but can't name any	7
Don't know of any	63
Some gave more than one answer	106%

Moreover, animal experimentation is seldom connected with their own medical treatment. Of the 45% who reported that they had had a major illness or operation only a third had any idea at all of how the treatment they received had been developed and few of these attributed it to animal experimentation:

*This column adds to more than 82% because some respondents gave more than one use for animals.

"Have you ever had a serious illness or an operation? (If 'illness'): Do you happen to know what medicine was used in treating you? As far as you know how did they first find out that (name of medicine) was good for (name of illness)? (If 'operation') How do you suppose they invented that kind of operation?"

No serious illness		55%
Illness or operation		
Don't know nature of treatment used	9%	
Know treatment, but don't know how it was developed	21	
Developed by trial and error on human beings	6	
Developed through experimentation or research, kind unspecified	4	
Developed through animal experimentation .	3	
Miscellaneous	2	45
		100%

As might be expected, then, questions about specific aspects of animal experimentation frequently seemed bewildering, since it had never even occurred to people to wonder about them. For example:

37% said they didn't know where "medical schools get most of the animals they use", and many others admitted that they were only guessing.

54% said they didn't know how researchers "decide on what kind of animals to use for their work", while many others answered only vaguely.

45% said they didn't know whether "medical schools generally have any trouble getting animals to use for research purposes", while 41% said medical schools did not have difficulties.

60% had never "heard or read of any people or groups that are trying to keep medical schools from using animals for teaching and research purposes".

Educated, interested people are more likely to have information about medicine and medical research than less educated, uninterested people. But even among the best educated, half do not know of a medicine manufactured from animal substances, a third have never heard of opposition to animal experimentation and rather large numbers know nothing of where research animals come from, why various animals are used and whether medical schools have any difficulties securing animals. These relationships are shown in the next table.

Relation of Education and Interest to Information about Medicine

	Proportions giving Indicated Answers Among:								
	Educational Levels			Those who are, with regard to medical developments			Those who have thought about the question of animal experimentation		
	College	High School	Grade School	Very interested	Fairly interested	Hardly interested at all	A good deal	A little	Not at all
Percent who said they didn't know where medical schools get most of the animals they use	23%	36%	48%	26%	34%	52%	32%	37%	50%
Percent who said they didn't know how researchers decide on what kind of animals to use	30%	51%	71%	43%	48%	73%	45%	54%	73%
Percent who said they didn't know whether medical schools generally have trouble getting animals	34%	44%	54%	29%	43%	62%	36%	46%	63%
Percent who said they had never heard of opposition to animal experimentation	33%	58%	80%	45%	54%	84%	51%	62%	77%
Percent who can't name a medicine derived from animal substances ...	50%	71%	87%	61%	70%	88%	64%	75%	90%

What may seem less expected is the extent to which practicing physicians and especially high school teachers lacked information about animal experimentation. In answer to a general question about the contributions of animal experimentation, both groups were able to answer for the most part, stressing, first, the testing of new drugs:

"Do you think that animal experimentation has made any contribution to medical progress or not? (If 'Yes') What contributions has it made?"

	High School Teachers	Practicing Physicians
Yes	97%	99%
Testing new drugs for effectiveness, uses, dosage, etc.	35%	59%
Current work on incurable diseases, determination of causes of disease	17	13
Contributions to knowledge of basic physiology	13	16
Experimental surgery, development of new surgical techniques ..	9	34
Manufacture of drugs, biologicals, sera	7	3
Biological tests	2	2
Training of medical students	2	1
Has made possible the serving of human life by experimenting on animals first	28	14
Is essential to all medical progress, has helped in every advancement	5	19
Miscellaneous	4	3
Don't know what	3	1
No	1	*
Don't know	2	1
	100%	100%

*Less than 0.5%.

**These columns add to more than their respective totals because some respondents named more than one contribution.

However, when these groups were asked about the part played by animal experimentation in six specific medical developments, only 34% of the doctors and 2% of the teachers had any amount of information about all six. Both groups were most familiar with the development of small-pox vaccine, but even here 18% of the doctors and 38% of the teachers did not know what part animals had played in it. With relatively new developments like the surgical techniques used to save "blue babies" over a third of the doctors and almost all the teachers were not informed: In more detail:

> "Here are some important discoveries in medicine. Do you happen to know what part, if any, animal experimentation played in the development of each of them? What?"

	Percent uninformed* about each item among:	
	High School Teachers	Practicing Physicians
Small-pox vaccine	38%	18%
Insulin	60%	18%
Penicillin	70%	31%
Sulfa drugs	73%	30%
Streptomycin	84%	35%
Surgical procedures for saving "blue babies"	87%	36%

In fact, 23% of the teachers and 5% of the doctors had no information about any of these items. On the average, teachers were uninformed on about four items, while doctors were uninformed on about two of them. Full scores are:

Number of Medical Discoveries about which Respondent is Uninformed:	High School Teachers	Practicing Physicians
None of them	2%	34%
One	7	22
Two	10	16
Three	13	10
Four	18	8
Five	27	5
All six	23	5
	100%	100%

Among doctors, general practitioners are more likely to be uninformed than specialists: 35% of the general practitioners were uninformed about three or more of these discoveries as compared with 19% of the specialists. Older physicians were also less informed; while only 21% of the doctors under forty were uninformed about three or more, 40% of doctors sixty and over were.

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*This group consists of the people who said they didn't know plus the small number who asserted that animals had not played a part in that development. The remainder gave either correct or partially correct answers, except for a group whose answers were too abbreviated to permit determination of whether they had information or not. But even this last group is excluded from the uninformed to make these figures a conservative estimate of the lack of information.

Among teachers, only those who taught biology were appreciably better informed, and even these biology teachers did not have the information of the average doctor, but 48% of the biology teachers had no information about at least three of the six medical developments as compared with 86% of the teachers of other subjects.

Teachers and doctors were, of course, better informed than the general public. For example, they were more likely to have some ideas of the sources through which research animals are obtained, and more likely to cite the major sources of supply, but, still, close to a fifth of each group had no idea on this subject:

"As far as you know, where do medical schools get most of the animals they use?"

	General Population	High School Teachers	Practicing Physicians
Buy them	37%	46%	49%
City pounds, animal shelters, SPCA, etc.	17	38	52
Raise their own	16	29	23
Gifts, donations	4	5	2
Picked up from the streets	4	5	8
Steal or buy stolen animals	1	1	1
Miscellaneous	3	1	*
Don't know	37	18	17
Some gave more than one answer	119%	143%	152%

Similarly, a fifth of the practicing physicians and a third of the teachers had no notion as to whether or not medical schools encountered difficulties in obtaining animals, and most of the rest assumed there were no difficulties:

"As far as you know, do medical schools generally have any trouble getting animals to use for research purposes?"

	General Population	High School Teachers	Practicing Physicians
Yes	14%	22%	35%
No	41	46	45
Don't know	45	32	20
	100%	100%	100%

* Less than 0.5%.

Teachers and doctors were much more likely to be aware of the anti-vivisectionist movement than the general public, though even here, close to a quarter of the teachers had not heard of it:

"Have you ever heard or read of any people or groups that are trying to keep medical schools from using animals for teaching and research purposes?"

	General Population	High School Teachers	Practicing Physicians
Yes	37%	76%	95%
No	60	22	5
Don't know	3	2	*
	100%	100%	100%

I N S U M M A R Y: The general public is favorably disposed toward the field of medicine and medical research, but has very little information about it, and not much interest in acquiring this information. To a lesser degree, high school teachers share the public's low level of information. Even doctors in practice today have gaps in their information about the procedures of medical research.

* Less than 0.5%.

II

OPINIONS ABOUT ANIMAL EXPERIMENTATION

Overall Evaluation

People, today, favor the use of live animals in medical research and teaching by a wide margin, with doctors and high school teachers even more likely to endorse the idea. There are, in fact, few issues for which such unanimity exists:

"In general, do you favor or oppose the use of live animals in medical teaching and research?"

	General Population	High School Teachers	Practicing Physicians
Favor	85%	95%	99%
Oppose	8	4	1
Don't know	7	1	-
	100%	100%	100%

Support for animal experimentation derived from the feeling that experiments are essential to progress in medicine, that out of them come benefits for the human race and that, since experiments are necessary, risking animal life is preferable to experimenting on human beings. Doctors were more likely to explain their stand in terms of the needs of the field of medicine, while the general public and teachers more frequently spoke in terms of its benefiting people either directly or by sparing them unnecessary risks. In more detail:

"Why (do you favor the use of live animals in medical research and teaching)?"

	Percent of Group Favoring		
	General Population	High School Teachers	Practicing Physicians
It's better to experiment on animals than on humans	45%	42%	37%
Experiments are essential to progress in medicine.	28	29	58
It benefits humanity	24	32	14
It's more practical, efficient to use animals	2	6	4
Qualifications: only if animals don't suffer, only if the work is important, only if they don't use dogs, etc.	3	3	1
Miscellaneous	4	1	2
Don't know why	1	-	-
Some gave more than one answer	107%	113%	116%

The importance attributed to animal experimentation can also be seen from the fact that 84% of the general public* accept the statement that it is one of the main factors in medical progress and must be continued:

"Will you look over these three statements and tell me which comes closest to the way you feel about experiments with live animals?"

	General Population
Almost nothing important in medicine has ever been discovered from experiments with animals and probably nothing important ever will be	2%
Maybe experiments with animals did lead to some important discoveries in the past, but further experiments will not add anything now	5
Experimenting with animals is one of the main ways that medicine has progressed in the past and it needs to be continued	84
Don't know	9
	100%

In point of fact, only about a fourth of those opposing animal experimentation explicitly disavowed its importance, either saying that it is useless or asserting that there are other, better research techniques. The majority of opponents based their views on the feeling that experimentation was cruel and inhumane, with a smaller group taking the philosophical position that animals are to be regarded as the moral equivalents of men:

*This question was not asked of the other two samples.

"Why(do you oppose the use of live animals in medical teaching and research)?"

	Percent of General Population**	Percent of Group Opposing among General Population***
It's cruel, inhumane	4%	55%
It's useless, doesn't do any good	1	16
It isn't indispensible, there are other or better research techniques	1	10
Animals have or should have, the same rights as humans.	1	10
Miscellaneous	1	9
Don't know	*	1
Some gave more than one answer..	8%	101%

Limitations on Animals Used

On the other hand, endorsement of animal experimentation is not as complete as these results indicate. Over a fifth of the general population would restrict to some extent the kind of animals to be employed in laboratories. The question asked was:

*Less than 0.5%.

**While this question was asked of the few doctors and teachers who opposed animal experimentation, these were too small a number to yield reliable information, so the results are not reported here.

***It should be noted that in tables of this kind, where there is only a small sub-group for whom the question is relevant, results are usually presented only for the sub-group in order to bring out contrasts and simplify presentation. The data correctly indicate that 55% of those opposed to animal experimentation said that it is cruel or inhumane, but, since those opposed are only 8% of the total, this means that 4% of the entire population expressed the opinion.

"Do you think doctors should be free to use any kind of animal in their work or are there some kinds of animals that they should not be allowed to use?"

	General Population	High School Teachers	Practicing Physicians
Should be free to use any	67%	87%	96%
Should not be allowed to use some	22	8	2
Should not be allowed to use any	3	2	*
Don't know	8	3	2
	100%	100%	100%

The animals these people would exempt from medical research uses are, of course, the domestic animals with dogs leading the list, followed by cows and other food animals, horses and cats. In detail:

"What kind of animals should not be used for medical research?"

	Percent of Group Opposed to Use of Some or All Animals**	
	General Population	High School Teachers
Dogs	39%	38%
Cows and other food animals..	37	20
Horses	29	18
Cats	18	14
Pets, generally	6	2
Domestic animals generally ..	3	4
Miscellaneous	15	24
All animals	12	20
Don't know what kind	3	2
Some gave more than one answer	162%	142%

Reasons for exempting the animals mentioned were primarily of one of two kinds: either the animals were regarded as being in some sense almost human, or close to humans in some respect, more sensitive, loved pets etc., or they were felt to be useful in other respects, as work or food animals, primarily***. Aside from these, people gave as explanations simple assertions of their fondness for the particular animals, or expressed the belief that other animals would be equally if not more acceptable for research purposes. Their answers were:

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*Less than 0.5%.

**There are too few doctors in this group to report results for them.

***It may be noted that this latter group must have been assuming that the use of such animals for research would noticeably affect the supply of them available for other purposes.

"Why should these animals not be used?"

	Percent of those Explaining their Opposition	
	General Population	High School Teachers
They are close to humans, almost human, are loved, are pets, are more sensitive, etc.	39%	40%
They are useful to man in other ways--for food, labor, etc.	37	22
Scientists wouldn't want to use this kind of animal ..	11	22
I like them	8	10
It isn't necessary to use these, can just as well use others	6	10
Miscellaneous	8	7
Don't know why	3	2
Some gave more than one answer	112%	113%

Still, the opposition to the use of domestic animals was not strong enough to withstand the prestige of medical research. When those opposed were asked: "If doctors felt that these animals were better suited to their work than any other kind of animal, would you still be against their using them or not?", the majority withdrew their objections, so that we get:

	General Population	High School Teachers	Practicing Physicians
Willing to have researchers use all animals	67%	87%	96%
Rather they didn't use certain animals, but will accept it if really necessary	15	6	2
Oppose use of certain animals, regardless of researchers' opinions	7	2	*
Oppose use of all animals	3	2	*
Don't know	8	3	2
	100%	100%	100%

*Less than 0.5%.

Among the small group who remained opposed to the use of certain animals in any case, the most frequent ways of explaining their position were, first, to deny the implication of the question by asserting that there was no reason to prefer one animal to another for research purposes, and, second, to acknowledge an emotional block where these particular animals were concerned. Detailed answers are shown below.

"Why (would you still be against their using these animals)?"

	Percent of group "still opposed" among general population*
They don't need these animals, can use others, they are all alike	32%
I love these animals, can't bear to see them used	31
We need these animals for other purposes	22
Their work isn't important enough to justify using them	7
It's cruel to the animals	5
Scientists wouldn't want to use them anyway	3
Miscellaneous	5
Don't know why	2
Some gave more than one answer	107%

Despite this apparent respect for the needs of science, however, when the factor of pain in experimentation was explicitly suggested, 40% then took the position that at least some kinds of animals should not be used.** Cows, horses, dogs and cats were the animals most frequently protected from pain, in that order, while other animals were selected only rarely:

*Insufficient cases to report results for the other two samples.

**This question immediately followed the one which introduced the idea of scientific necessity. It is possible that the result here would be even higher, if it were not for the carry-over of that prestigeful idea, as well as people's awareness of their inconsistencies.

"If the work doctors are doing is going to hurt the animals used, are there any (other) animals on this list that you think should not be used?"

	General Population
Cows	27%
Horses	25
Dogs	19
Cats	9
Monkeys	3
Rabbits	3
Frogs	1
Rats	1
Guinea Pigs	1
All of them	4
No, all right to use them all	60
Some gave more than one answer	153%

Limitations on Kinds of Use

In order to make certain that the general public was familiar with the uses made of animals in medical teaching and research in expressing their opinions of it, they were asked about four specific types of usage: two of them pertaining to teaching, and two, to research. The question was:

"As far as you know, doctors use animals for different things. Do you think it is all right or not all right for doctors to use animals for each of these?"

A. A new medicine is tried out by giving animals some disease and seeing if that medicine will cure them.

B. A live animal, under an anaesthetic to prevent pain, is cut open to show medical students how the different parts of the body work.

C. Medical students learn how to perform operations by practicing on live animals that have nothing wrong with them while the animals are under anaesthesia to prevent pain.

D. Doctors studying a disease that can't be cured now give it to an animal in order to operate on it and see what goes on inside the animal when it has the disease.

The research uses, which as we have seen, were typically what people thought of in connection with animal experimentation, were somewhat more approved of than the employment of live animals for teaching purposes, but even these uses were accepted by over four-fifths of the public. The exact results were:

	Percent of General Population		
	All right	Not all right	Undecided
Discovering new drugs ..	91%	5%	4% = 100%
Research in incurable diseases	87%	8%	5%
Demonstrations of physiology	84%	10%	6%
Practice in surgery	83%	11%	6%

Over three-fourths of the population (77% to be exact) found nothing to object to in any of these four uses, while 16% objected to one or more, and 7% were undecided about one or more.

In the main, people who objected to using animals for any of these purposes did so on the grounds that sound animals should not be willfully injured, given incurable diseases. With reference to the use of animals for demonstration purposes, it seemed to most of the objectors that other methods, not involving repeated use of living animals were available--for example, it was frequently suggested that the demonstration could be filmed and the film used thereafter. In other words, the objections derived from certain qualms about using animals, but only rarely went to the extent of fully denying either the usefulness or the desirability of animal experimentation. In more detail:

"Why (do you think it is not all right for doctors to use animals for each of these)?"

	Percent of those saying "not all right" to each among general population			
	Discovering New Drugs	Research in Incurable Diseases	Demonstration of Physiology	Practice in Surgery
Shouldn't harm animals that have nothing wrong with them; isn't right to injure them or give them incurable diseases; should use sick animals	42%	54%	13%	49%
Can or should use methods not involving living animals: dissections, autopsies, X-rays, moving pictures, watch experienced doctors operate, etc.	10	9	60	32
Can use humans who already have the disease or need an operation	6	6	2	2
Can't learn anything about humans by using animals	13	15	12	9
Shouldn't use certain species of animals; otherwise, all right ...	23	14	8	8
Miscellaneous	10	4	8	9
Don't know why	3	1	1	1
Some gave more than one answer	107%	103%	104%	110%

Summary of Opinions

It should be apparent that there is a certain amount of contradiction and inconsistency in the attitudes expressed by the general population. Analysis indicates that exactly half the people answered this series of questions in a way either consistently favorable or consistently unfavorable to animal experimentation, while the remainder took various mid-way positions. The major divisions were:

47%...Consistent Supporters of Animal Experimentation

These were people who said:

1) they favored "the use of live animals in medical teaching and research;"*

2) "experimenting with animals is one of the main ways that medicine has progressed in the past and it needs to be continued;"*

3) "doctors should be free to use any kind of animal in their work;"

4) "if the work doctors are doing is going to hurt the animals used, it is all right to use all of them;" and

5) "it is all right for doctors to use animals" for all of the four purposes specified."

28%...Objectors to the Use of Certain Animals

This group exempted certain animals from use in research either generally or in case the work involved pain, but they recognized the importance of animal experimentation and put no limitations on the types of experiments performed.

19%...Objectors to Certain Uses of Animals

These people did not approve of using animals for one or more of the purposes specified, and might, in addition, oppose the use of certain animals.

3%...Complete Opponents of Animal Experimentation

This group said that they opposed animal experimentation; they did not consider it essential and they felt doctors should not be permitted to use any animals.

3%...Were too inconsistent to classify.

*A few cases in which respondents said "don't know" to either or both of these questions, but gave the remaining responses as indicated are also classified here.

It should not be assumed, however, that half the public opposes animal experimentation to some degree. The fact is that most of those who would limit either the kind of animals used or the uses to which they are put regard themselves as proponents of animal experimentation: 89% of these classified as "objectors to the use of certain animals" and 68% of those classified as "objectors to certain uses of animals" said that, in general, they favored animal research. (The remainder of each group was equally divided between those who opposed and those who weren't sure where they stood.) The problem is largely one of unconcern and lack of information leading to inconsistent and even illogical points of view rather than one of conscious opposition to animal experimentation.

Some Background Factors in Opinions about Animal Experimentation

The most clearcut relationship is that between education and opinion: 94% of the college-educated favoring animal experimentation, while 76% of those with only grade school education do. The contrast is not as extreme at the other end, however, for only 4% of the college-educated and 10% of the grade school educated say they oppose the use of animals. The better-educated are, of course, much more consistent in their thinking: 66% of them consistently support animal experimentation without qualifications, while 36% of the least educated do.

Economic status, as indexed by family income also shows some degree of relationship. Among those with family incomes of $5,000 and over, 93% favor and 4% oppose animal experimentation, with 60% classifiable as consistent supporters, while in the lowest income group 73% favor and 12% oppose, and only 38% are classed as consistent supporters of animal experimentation. Since income and educational level are highly interassociated, this relationship is not surprising.

Among religious groups, differences are not sharp, except for a tendency for Jews to be most favorably disposed, while sects like the Christian Scientists are least favorable. Interestingly enough, those who claim no religion and those who never attend church are somewhat more opposed than others.

Older people are somewhat less favorable toward animal experimentation than are people under 50 years of age. Differences between men and women, the married and unmarried and between parents and the childless married people are negligible.

There is some tendency for residents of big cities and residents of the West Coast to be more unfavorable toward animal experimentation.

It should be noted of these relationships, shown in the tables which follow, that in every case over two-thirds of any group is favorable and in no case is there as much as a quarter of the population group opposed to animal experimentation.

	General Opinion of Animal Experimentation			
	Favor	Oppose	Don't know	
Education				
College	94%	4%	2%	= 100%
High School	98	8	5	
Grade School	76	10	14	
Sex				
Men	85%	8%	7%	
Women	84	8	8	
Marital Status				
Married	87%	7%	6%	
Single	79	10	11	
Widowed, Divorced, Separated	75	11	14	
Married at any time:				
Have children	86%	7%	7%	
Do not have children	82	11	7	
Age				
Under 30 years old	86%	8%	6%	
30 - 39	89	6	5	
40 - 49	86	7	7	
50 - 59	81	10	9	
60 - 69	78	10	12	
70 and over	71	15	14	
Religion				
Protestant	84%	8%	8%	
Catholic	84	9	7	
Jewish	92	4	4	
None	80	13	7	
Protestant Denominations				
Congregationalist	93%	5%	2%	
Episcopalian	88	7	5	
Methodist	87	5	8	
Presbyterian	86	8	6	
Lutheran	84	9	7	
Baptist	82	8	10	
Miscellaneous Fundamentalist Groups	82	10	8	
All other (Quakers, Christian Scientists, Jehovah's Witnesses, etc.)	72	21	7	
Frequency of Church Attendance				
Once a week	85%	8%	7%	
1-3 times a month	85	6	9	
Less than once a month	86	7	7	
Never	78	15	7	

	General Opinion of Animal Experimentation		
	Favor	Oppose	Don't know
Nativity			
Native-born of native parentage.....	85%	8%	7%
Native-born of foreign parentage....	87	6	7
Foreign born	76	12	12
Race			
White	86%	8%	6%
Negro	71	10	19
Socio-Economic Status			
Family income			
$5,000 and over	93%	4%	3%
$4,000 to $5,000	93	4	3
$3,000 to $4,000	89	8	3
$2,000 to $3,000	85	9	6
$1,000 to $2,000	77	10	13
Under $1,000 a year	73	12	15
Occupation			
Professional and semi-professional workers	90%	7%	3%
Proprietors and managers	88	7	5
Clerical, sales and kindred workers (white collar)	88	8	4
Skilled workers	85	10	5
Semi-skilled workers	83	7	10
Unskilled workers	82	9	9
Service workers	77	12	11
Farmers	83	7	10
Not gainfully employed	84	8	8
Area of Residence			
North Eastern States	83%	8%	9%
Middlewestern States	87	7	6
Far Western States	80	16	4
Southern States	85	6	9
Cities over 500,000 population	79%	13%	8%
50,000 - 500,000	88	6	6
2,500 - 50,000	86	8	6
Under 2,500 (Rural Non-Farm)	83	5	12
Farm	90	5	5

Information and Interest in Relation to Opinion

We have just seen that, except for factors of place of residence, the items in the social background of people which relate to opinions about animal experimentation are primarily educational level and other characteristics--income, age, race, etc.--that are themselves associated with differences in educational level. Since educated people were shown earlier to be more interested in and better informed about medical research, we might expect the interested, informed people to be more favorably inclined toward animal experimentation.

In part, this is the case. For example, among those who said they were very interested in new medical developments 91% favored animal experimentation; while among those who had hardly any interest in medical discoveries, 66% did. Here again, however, the difference was largely in the number expressing a definite opinion, for at the opposite extreme, 6% of the interested and 15% of the uninterested said they were opposed.

In a similar fashion, those who had at least heard about animal experimentation favored it by 89%, while of those who had not heard of it before, 66% approved. But, only 7% of the former group and 11% of the latter group expressed opposition to the use of animals. Other matters of information about animal experimentation show even less clear-cut relationships, while contact with the controversy at least in the sense of having considered the question or being aware of the existence of antivivisectionists, is associated both with more favorable and more unfavorable attitudes, indicating that people who are completely opposed to animal experimentation have familiarized themselves with the controversy.

General Opinion of Animal Experimentation

Among those who:	Favor	Oppose	Don't know	
...are very interested in new medical discoveries	91%	6%	3%	= 100%
...Are fairly interested	87	7	6	
...are hardly at all interested..	66	15	19	
...have heard or read of animal experimentation	89%	7%	4%	
...have not heard or read	66	11	23	
...know a medicine derived from animals	91%	6%	3%	
...do not know a medicine	82	9	9	
...know how animals are chosen ...	92%	5%	3%	
...do not know	78	11	11	
...think medical schools have trouble obtaining animals ...	90%	7%	3%	
...think medical schools do not have trouble	88	8	4	
...don't know whether they do or not	79	9	12	
...have heard of antivivisectionists	86%	11%	3%	
...have not heard of them	85	6	9	
...have thought a good deal about the question of animal experimentation	86%	12%	2%	
...have thought a little	89	7	4	
...have not thought at all.....	74	8	18	

Experiences with Animals in Relation to Opinion

For most people, contacts with animals take the form of owning pets or of spending time on farms, with a smaller number having worked with live animals in experimental settings during the course of their education. At the present time, 40% of the population reports that they own pets and over 90% have been pet owners at one time or another, most usually of dogs and cats:

"Do you happen to have any pets? What? (If 'None') Did you ever have a pet? What?"

Now have pets	40%
Dog	38%
Cat	22
Other mammals	4
Birds, fish, other non-mammals	4
Formerly had pets	51%
Dog	37%
Cat	18
Other mammals	4
Birds, fish, other non-mammals	4
Never had pets	9
	100%

Close to a fifth of the population now lives on farms, while about two-fifths report that they once lived on farms. Only a quarter of the population reports that they have never spent any time on a farm, even as a vacation:

"Did you ever spend any time on a farm? (If 'Yes') Did you live there or vacation there? Was that when you were a child or since you've been grown up?"

Now living on a farm		17%
Formerly lived on a farm:		
Both as a child and as adult	10%	
As child only	23	
As adult only	6	
		39
Never lived on a farm but vacationed there:		
Both as child and as adult	3	
As child only	10	
As adult only	5	
		18
Never lived or vacationed on a farm		26
		100%

Thirty-five percent of those with college education and 18% of those with high school education report that they have had "courses in which either they or the instructor did experiments with live animals". If we assume that no one whose education did not go beyond grade school had such courses, then about 15% of the public has had personal contact with animal experimentation in school.

These experiential factors, however, play no strong role in determining opinions about animal experimentation. For example, while pet owners generally are somewhat more opposed to animal experimentation than are those who never owned pets, only 10% of the dog owners, the most opposed group, are opposed to animal experimentation, as compared with 3% of those who never owned pets:

	General Opinion of Animal Experimentation			
Among those who	Favor	Oppose	Don't know	
Now have pets:				
Dog	83%	10%	7%	= 100%
Cat	84	9	7	
Other mammals	87	8	5	
Non-mammals	87	7	6	
Formerly had pets:				
Dog	86	8	6	
Cat	88	7	5	
Other mammals	96	3	1	
Non-mammals	93	3	4	
Never had a pet	81	3	16	

Again, differences between people with farm experience and those without are slight, and it seems to have made very little difference whether people lived on farms or spent briefer periods there and whether this was childhood experience or took place in later life.

	General Opinion of Animal Experimentation			
Among those who:	Favor	Oppose	Don't know	
Now live on a farm	88%	5%	7%	= 100%
Formerly lived on a farm:				
Both as a child and adult.	83	7	10	
As child only	81	9	10	
As adult only	79	12	9	
Never lived on a farm, but vacationed there:				
Both as child and adult...	84	13	3	
As child only	86	8	6	
As adult only	91	5	4	
Never lived or vacationed on a farm	84	9	7	

Similarly, experimental work in school does not appear to be related to opinions about animal experimentation. While those who had laboratory courses tend to be a little more favorable toward animal experimentation, the differences are so slight as to have no significance:

	General Opinion of Animal Experimentation			
	Favor	Oppose	Don't know	
College-educated				
Had courses involving animal experimentation	95%	3%	2%	= 100%
Did not	93	5	2	
High School-educated				
Had courses involving animal experimentation	91	6	3	
Did not	86	9	5	

It seems likely that opinions about animal experimentation do not primarily grow out of specific experiences of this order, but rather are merely a reflection of people's general approach to life. These opinions are affected to a certain extent by increasing education and sophistication, but to a greater extent appear to derive simply from an acceptance of a value system which places humans above animals and sanctions, therefore, any use of animals which offers the possibility of human benefit.

The Role of the Hearst Press

Hearst newspapers reach only a minority of the population--19% of the general population, 14% of the teachers and 20% of the doctors named Hearst papers as the daily newspaper they "usually" read. Of those who do read them not everyone remembers the articles which dealt with animal experimentation, so that we get about 12% of the general public, 8% of the teachers and 16% of the doctors who remember reading the Hearst articles on animal experimentation.* The doctors and teachers who had read the articles were not, for the most part, impressed with them: 85% of the doctors and 58% of the teachers expressed disapproval of the articles, accusing them of being dishonest, distorted, one-sided, and so forth, as compared with 11% and 26% who expressed complete or partial approval. Among the general population who had read the articles 36% appeared to disapprove as against 47% who approved. In detail:

*It is possible, of course, that some people who do not "usually" read Hearst read these articles, but this was not determined.

"What did you think of them (the articles in Hearst papers about how animals are treated in medical research)?"

	Percent of group that remembers reading articles		
	General Population	High School Teachers	Practicing Physicians
Acceptance, approval.	40%	18%	11%
Qualified acceptance, approval	7	8	-
Rejection, disapproval	36	58	85
Non-evaluative responses	7	8	-
Miscellaneous reactions	5	-	3
Don't remember them clearly enough to say	5	8	1
	100%	100%	100%

These figures cannot, however, be taken as the reaction of Hearst readers to the articles "exposing" practices in animal experimentation, without some qualification. There is good reason to believe that a good many of the respondents who expressed approval were thinking, not of this series of articles, but of straight news stories about medical discoveries and of feature stories, treating research sympathetically, sometimes published in The American Weekly, the Hearst Sunday supplement. Evidence for this comes from the fact that among the group of Hearst readers that had consistently expressed a favorable attitude toward animal experimentation with no qualifications, 21% said they approved of these articles. But, in any case, readers of the Hearst press were less likely to favor animal experimentation than were non-readers:

	General Opinion of Animal Experimentation			
	Favor	Oppose	Don't know	
Read Hearst papers only	66%	33%	1%	= 100%
Read Hearst and other papers	79	15	6	
Read only other papers.	89	5	6	
Do not read newspapers.	64	12	24	

While it is true that Hearst papers in general are more likely to circulate among the lower income, less educated groups, still the fact that opposition to animal experimentation is higher among Hearst readers than it is in even the lowest income and educational groups strongly suggests that its editorial policies on animal experimentation have had an effect on its readers.

I N S U M M A R Y: People generally favor animal experimentation by a wide margin, justifying it primarily in terms of the benefits which accrue to mankind from it. They usually regard it as an essential technique in medicine, though there are sometimes confusion and reservations about the necessity of using particular animals in particular ways. While higher education and upper income groups tend to favor animal experimentation to a somewhat greater extent than others, differences in factors of this sort and in matters pertaining to information about medicine and to experiences with animals are so slight as to suggest that opinions derive primarily from a cultural assumption that attempts at human improvement are more valuable than animal life. The fact that readers of the Hearst press critiques of animal experimentation have been influenced toward opposition to animal experimentation suggests that the public does not countenance brutality for its own sake and reacts negatively to medical research when it is represented in this light.

III

SOME BELIEFS ABOUT PROCEDURES IN MEDICAL RESEARCH

As we have seen, people actually know very little about animal experimentation, but their tendency is to approve of medical research and to assume that animal experimentation, as part of the research process, is equally desirable. Despite the confusion and contradiction which detailed questioning discloses in their thinking, people's reactions are in intent favorable. Whenever they were questioned about the way things were done in medical research, people, for the most part, either admitted that it had never occurred to them to wonder about it or else assumed that it must be all right. This may be seen with reference to three issues covered in this survey: the ways in which animals are obtained, the treatment of animals in experimental work, and the need for regulation of medical research.

Sources of Animals

As shown earlier, a good many people had no idea where experimental animals were obtained, but among those who did, commercial breeders, city pounds and breeding of animals by the research laboratories were the ways most frequently mentioned.* Of those who had any idea where the animals came from, the vast majority felt that this was a good way to get animals and had no better suggestions to offer:

> "Do you think that this (source cited by respondent) is a good way for medical schools to get animals or would some other way be better?"

Percent of group who mention sources:

	General Population	High School Teachers	Practicing Physicians
A good way	84%	86%	86%
Some other way better.....	9	11	13
Don't know	7	3	1
	100%	100%	100%

This, in fact, applied to each of the major ways of obtaining animals. While commercial suppliers and breeding of animals by the research group were most likely to be approved of, city pounds were regarded as a good source by four-fifths of those who knew that they were a source of experimental animals.

* See page 13

	Percent who say "this is a good way" among those citing each source:		
	General Population	High School Teachers	Practicing Physicians
Source:**			
City pounds, animal shelters, SPCA, etc.	80%	82%	86%
Commercial suppliers	85%	90%	88%
Raise their own	91	93	92
Gifts, donations	88	**	**

And the leading suggestions as to "better ways", were these same sources, though breeding their own animals was the leading suggestion here:

"What way (would be better)?"

	Percent of those who say there is a better way		
	General Population	High School Teachers	Practicing Physicians
Raise their own	53%	61%	49%
Commercial suppliers	18	28	16
Gifts, donations	8	2	4
City pounds, animals shelters, SPCA, etc.	6	13	22
Miscellaneous	16	2	10
Don't know	5	2	--
Some gave more than one answer..	106%	108%	101%

**Less frequent sources are omitted because of the small number citing them.

The proposal that unclaimed pound animals be turned over for use in medical research is favorably received by 85% of the public, even though the question is asked in terms of dogs, for whom, as shown earlier, many people have sentimental feelings:

> "In most cities and towns, stray dogs are picked up by the authorities. What do you think should be done with these dogs, if they are not claimed by their owners and if nobody else wants them as pets. Do you think they should be put to death by the authorities or should they be turned over to medical schools to be used in research?"

	General Population	High School Teachers	Practicing Physicians
Put to death.....	11%	8%	4%
To Medical Schools	85	89	95
Don't Know	4	3	1
	100%	100%	100%

The idea that pets are stolen to be used in medical research finds little public acceptance. About 5% believe it happens frequently, while only 20% in all think that it ever occurs:

> "Some people say that pet dogs or cats are stolen in order to sell them to medical schools for research purposes. Do you think this is true or not? (If 'true') would you say this happens often or only once in a while?"

True	20%
Often	5
Once in a while	14
Don't know how often	1
Not true	59
Don't know	21
	100%

And those who think that thefts of pets do occur seldom hold the medical school responsible. About a fifth of this group blame the medical schools for encouraging theft by buying animals without investigating the sources, while the remainder feel that either the thief or the pet's owner is primarily at fault.

The Treatment Animals Receive

A large majority believes that animals being used in research receive good care and are not unnecessarily abused:

"When medical schools have animals that they are using in research, do you think they take as good care of them as individual owners would?

	General Population	High School Teachers	Practicing Physicians
As good	75%	77%	84%
Not as good.....	11	13	7
Can't compare the two..	2	3	7
Don't know	12	7	2
	100%	100%	100%

"In general, when doctors use animals in their work, do you think they really try to keep from hurting the animals?"

	General Population	High School Teachers	Practicing Physicians
Try	79%	84%	99%
Do not	8	5	*
Don't know	13	11	1
	100%	100%	100%

*Less than 0.5%

For the most part, those who felt that research animals do not receive as good care as pets, were thinking less of the physical treatment of the animal than of the lack of personal attention and affection in the laboratory situation. This factor was cited more frequently than all the others combined and the poorer care was typically explained in terms of the contrasting situations, rather than poor intentions:

"In what ways is the care not as good?"

	Percent of those who think care is not as good		
	General Population	High School Teachers	Practicing Physicians
Lack of personal attention and affection	60%	74%	75%
Insufficient, inadequate diet	15	11	12
Unnecessary suffering, indifference, abuse, mistreatment	15	11	9
General physical care not as good, neglect	6	11	6
Pain necessarily involved in experimentation	6	5	3
Restrictions on free activity	5	8	9
Dirty, unsanitary quarters	5	5	18
Miscellaneous	1	--	3
Don't know	4	1	--
Some gave more than one answer	117%	126%	135%

"What do you think are the reasons for this?"

	Percent of those who think care is not as good		
	General Population	High School Teachers	Practicing Physicians
Interested in animal only for research purposes, have no feeling for the animal, regard it as a tool	46%	59%	57%
Lack incentive of ownership to care for animal	16	6	10
Too busy, don't have the time to care for animal	10	16	13
Have large numbers of animals to attend to	9	13	30
Experiments require it	6	5	—
Become hardened, inhumane, sadistic	5	11	7
Must avoid becoming attached to experimental animals	4	3	3
Lack of space	2	2	—
Miscellaneous	3	3	3
Don't know	3	2	3
Some gave more than one answer	104%	120%	126%

The Need for Regulation

About two-thirds of the public feel that it may safely be left either to the individual doctor or to the medical schools to control the use of animals, while 20% feel that legal regulation is necessary:

> "Do you think it is important to have rules and regulations covering the way animals are used in medical research or should each doctor be allowed to decide for himself how the animals are to be used? (If 'Rules and regulations') Do you think that the medical schools should set up the rules or should there be laws setting up the rules for the medical schools?"

	General Population	High School Teachers	Practicing Physicians
Individual decisions	49%	40%	44%
Rules and regulations			
By medical schools	19	35	42
By law	20	20	11
Don't know which	3	2	1
Don't know	9	3	2
	100%	100%	100%

The rules people would like to see followed are rather general ones designed to make sure of humane treatment of the animals. Most frequently referred to are the avoidance of unnecessary suffering, the elimination of unnecessary experiments, good physical care of the animal in housing, diet, sanitation, and the like, the use of anesthetics, and some system for having experts set up standards in the field and then see that they are adhered to:

"What rules should there be? Any others?"

	Percent of those who favor rules		
	General Population	High School Teachers	Practicing Physicians
Humane treatment, general.....	20%	23%	27%
No unnecessary pain, prevent needless suffering, don't hurt the animals, etc.	31	40	34
Good physical care outside the experimental situation -- housing, food, sanitation, etc.....	14	18	20
No unnecessary experiments, make sure the work is important.....	14	17	12
Use anaesthetics.....	12	15	11
Have supervision, inspection to enforce standards.....	10	14	11
Set up standards defining types of animals to be used, legitimate uses, number to be used, etc.....	9	8	7
Miscellaneous	7	1	4
Don't know	11	8	3
Some gave more than one answer	128%	144%	129%

Those persons who favor laws to regulate animal experimentation do so from a desire to make sure the rules get enforced, to set up uniform standards which will put reasonable limits on what is done, to make sure of humane treatment and prevent abuses by individuals. There is also expressed some desire to have non-medical viewpoints represented to make certain of impartiality. In more detail:

"Why do there have to be laws?"

	Percent of those who favor laws		
	General Population	High School Teachers	Practicing Physicians
To insure enforcement	34%	17%	15%
To prevent abuses, require humanity	30	34	34
To set limits on what can be done	20	19	11
To insure uniformity of practice from one medical school to another	16	11	21
To get disinterested, impartial rules by giving non-medical people a say	11	33	11
To encourage medical research, silence opposition	1	5	11
Miscellaneous	1	--	4
Don't know	2	--	--
Some gave more than one answer..	115%	119%	107%

Those who favored regulatory laws for animal experimentation were most often not familiar enough with their state anti-cruelty laws to express an opinion as to their adequacy; the next largest group was satisfied with the present laws, leaving only a minority definitely feeling that further legislation is needed. In fact, only 4% of the general public, 3% of the teachers, and 2% of the doctors feel both that legislation is necessary and that the present laws are inadequately protective of the animals. Opinions of state laws are shown below:

"Do you think the present anti-cruelty laws in your state do the job or not?"

	Percent of those who favor laws		
	General Population	High School Teachers	Practicing Physicians
Do the job	35%	23%	35%
Do not	19	18	12
Don't know	46	59	53
	100%	100%	100%

The few critics of the state laws say primarily that the laws are not strict enough or not vigorously enforced.

Relation of these Beliefs to Overall Impressions

As might be expected, people who oppose animal experimentation in general are more likely to hold views which are critical or suspicious of animal experimentation. In every one of the instances discussed--the methods of obtaining animals, the care given them, and the need for regulation, those who had said they opposed animal experimentation took the less favorable stand. The differences, as shown below, are large and cannot be disregarded; yet, it is interesting that even so a bare majority of the opponents of animal experimentation approve of the sources for obtaining animals that they are familiar with and accept the idea of turning over stray animals to medical schools. Similarly, a majority credit research workers with consideration for the animals they work with.

	Percent giving indicated response among those who:	
	Favor Animal Experimentation	Oppose Animal Experimentation
Present sources of animals are a good way of getting them..	87%	55%
Stray dogs should be turned over to medical schools	90%	51%
It is not true that pets are stolen for sale to medical schools	63%	32%
Medical schools take as good care of animals	80%	37%
Doctors really try to keep from hurting the animals	82%	52%
Use of animals can be left to individual decision or to regulation by medical schools ...	73%	34%

I N S U M M A R Y: Though they may have given relatively little thought to the subject, the majority of the public accept current practices in animal experimentation. They do not object to the way animals are procured, feel that animals receive good care and consideration and are willing to leave the whole question of the treatment of animals as a matter for self-regulation. Opponents of animal experimentation are far less likely to express these opinions. Teachers and doctors endorse these viewpoints even more decidedly.

IV

OPINIONS OF THE ANTIVIVISECTIONIST MOVEMENT

Acquaintance with the Opposition to Animal Experimentation

It was pointed out earlier that the majority of the public is not even aware of the existence of opposition to the use of animals in medical research and the same may be said for a quarter of the teachers and 5% of the doctors.* About 4% of the public report that they have given money to groups opposing animal experimentation, among whom are included 1% who have joined such organizations.

Those who are familiar with opposition to animal experimentation think first of the antivivisectionist groups, but, among the general public and, to a certain extent, among teachers the Society for Prevention of Cruelty to Animals and local Humane Societies are also frequently cited. Doctors, being more personally involved in the conflict, are far more likely to single out antivivisectionist groups. It should be noted that even among the 37% of the public who claimed familiarity, over a quarter were not able to mention specific groups, leaving only 27% of the general public with enough familiarity with the problem to name groups, while only 12% had ever heard of the antivivisectionists:

"What people or groups (are trying to keep medical schools from using animals for teaching and research purposes)?"

	General Population	High School Teachers	Practicing Physicians
Didn't know there were any**	63%	24%	5%
Antivivisectionist groups...	12	32	71
SPCA.....	6	15	9
Humane Societies	6	11	4
Hearst press	3	4	12
Religious groups	1	4	2
Animal Rescue Leagues, Animal Shelters	1	2	1
Miscellaneous groups	1	1	1
Individuals, not organized groups	1	1	1
Don't know which groups	10	16	6
Some gave more than one answer..	104%	110%	112%

*See page 14

**Includes those who said they had never heard or read anything about it and those who said they didn't know whether they had or not.

Opinions about the Opposition

Opinions about the opponents of animal experimentation were primarily critical: unfavorable comments about them outweighed favorable or neutral ones by about 2 to 1 in the general public*, 5 to 1 among teachers and 10 to 1 among doctors. The more common epithets applied were "ignorant", "crackpots", "well meaning but misguided", "over-sentimental" and the like with selfishness, idleness and frustrations being less frequently attributed to them. On the other side, they were described as kind, good, humane people who were fond of animals, or as being just average, normal people:

"From what you know, what kind of people would you say they are?"

	Percent of group who has heard of opposition		
	General Public	High School Teachers	Practicing Physicians
Favorable or Neutral Impressions			
Kind, good, humane, idealistic	11%	6%	2%
Fond of animals, pet owners	18	11	6
All kinds; just average, typical, normal	4	1	2
Unfavorable Impressions			
Well-meaning, well-intentioned, but misinformed, misguided	12	13	34
Too emotional, oversentimental, impractical, too idealistic	8	23	13
Ignorant, stupid, narrow, prejudiced, opposed to medical progress	18	25	20
Cranks, fanatics, crackpots, faddists, queer	18	21	26
Selfish, cold, inhumane; like animals better than people	7	8	6
Wealthy, idle, "society" people, looking for something to do with their time and money, seeking publicity	6	4	6
Childless, old-maids, taking out their frustrations on animals	4	6	4
Miscellaneous and Unclassified	4	6	5
Don't know enought to say	11	4	6
Some gave more than one answer	121%	128%	130%

*It should be remembered that the majority of the public has no opinion about them.

Estimates of the Importance of the Antivivisectionists

Yet, even the people who are aware of opposition to animal experimentation do not, for the most part, take it seriously. In the informed section of the public, two-fifths either believed that the opposing groups have achieved nothing or had no idea what they have done, while only 12% referred to actions which successfully interfered with medical research; the remainder either stressed the propaganda and lobbying work done or their humane work. Doctors and teachers were similarly unimpressed, though 27% of the doctors and 21% of the teachers who knew of the opposition were aware that it had achieved some successes:

"What have these people or groups done so far? Anything else?"**

	Percent of group who has heard of opposition		
	General Population	High School Teachers	Practicing Physicians
Educational or propaganda campaigns	21%	9%	10%
Stir up trouble, cause dissention, spread misinformation	11	17	21
Lobby, try to pass legislation restricting the use of animals	9	5	8
Have gotten restrictive legislation passed or permissive legislation defeated	4	9	11
Have interfered with, impeded medical research in ways other than legislation or unspecified	8	12	16
Help prevent mistreatment of animals	8	10	4
Take care of stray animals, provide wild life sanctuaries	5	2	1
Raise money	2	1	1
Miscellaneous	1	1	*
Haven't done anything	14	23	23
Don't know of anything	27	22	14
Some gave more than one answer	110%	111%	109%

*Less than 0.5%.

**Doctors and teachers were asked: "What have they been able to accomplish? Anything else?"

Moreoever, few of them, in the general public at least, believe that antivivisectionists will succeed in preventing the use of animals; only 6% of the group aware of opposition or about 2% of the entire population believe that there is a liklihood of the opposition to medical research succeeding. In comparison, 23% of the teachers and 44% of the doctors consider the antivivisectionists a real threat to medical research. The question:

"Do you think they will succeed in keeping medical schools from using animals or not?"*

	Informed Portion of General Population**	High School Teachers	Practicing Physicians
Will succeed (are a threat)	6%	23%	44%
Will not (are not)	83	62	51
Don't know	11	15	5
	100%	100%	100%

Those who are not impressed by the efforts of the antivivisectionists feel that they are only a minority group, that majority opinion favors animal experimentation, that the importance of animal experimentation is self-evident:

*Doctors and teachers were asked: "As far as you know, are the antivivisectionists (the people who oppose animal experimentation) a real threat to medical research or not?"

**Excludes those who had not heard of opposition to animal experimentation.

"Why? (Why do you think they will not succeed?) (Why do you feel this way--that they are not a real threat?)"

	Percent of group who has heard of opposition, but does not expect it to succeed		
	General Population	High School Teachers	Practicing Physicians
Animal experimentation is necessary, important, has done good, and therefore will continue	36%	9%	9%
Most people favor animal experimentation, think it is necessary, want it to continue .	29	17	19
The antivivisectionists are a minority, don't or won't have the strength to succeed	19	53	50
There are too many broadminded, sensible, intelligent people	7	7	8
Medical schools are strong enough to protect themselves	6	2	2
The antivivisectionists haven't a worthwhile cause, aren't sensible, want to stop progress, and therefore, won't succeed	4	8	12
Animals are too easy to get, couldn't stop the medical schools from getting them...	4	3	4
People will take steps to combat the antivivisectionists	1	1	1
Miscellaneous	3	3	6
Don't know	1	1	-
Some gave more than one answer	110%	104%	111%

The doctors and teachers who regard the antivivisectionists as a real threat do so on the grounds that any attempt to retard medical research must be taken seriously, that they have some successes to their credit already, that they affect public opinion, and that, being a well-organized minority, they may achieve their goals:

"Why do you feel this way (that they are a real threat)?"

	Percent of group that feels they are a real threat	
	High School Teachers	Practicing Physicians
They are trying to retard research; if they succeed, progress would be halted	37%	44%
They have succeeded in hampering medical research to some extent already	25	17
They are well-organized, hard-working, have money to spend to reach their goals	13	19
They give medical research adverse publicity, spread distorted accounts, influence public opinion adversely	13	11
Their use of emotional appeals is an effective technique	12	11
They are growing stronger, gaining support	7	6
They will succeed unless actively combatted, people are apathetic, don't combat them	-	5
Miscellaneous	2	1
Don't know	1	*
Some gave more than one answer	110%	114%

The much smaller group of the general public that said the antivivisectionists would succeed did so, for the most part, on the grounds that theirs was a good cause which either was or would come to be supported by the majority. A much smaller sub-group--13% of those who thought the antivivisectionists would succeed--felt that their success would result from public apathy, from a failure to combat the antivivisectionists.

Doctors are pretty much agreed that something should be done to combat the antivivisectionists, with 70% of them favoring it as against 23% who feel that nothing should be done. Teachers divide equally on this question:

*Less than 0.5%.

"Do you think that anything should be done to combat the antivivisectionists or not?"

	High School Teachers	Practicing Physicians
Should combat	45%	70%
Should not	45	23
Don't know	10	7
	100%	100%

Those who see no reason to combat the antivivisectionists take this position largely because they see no real threat; others fear that publicity may work to the advantage of the antivivisectionists, defend their civil liberties, or point to their usefulness in preventing abuses in animal experimentation:

"Why not? (Why shouldn't anything be done to combat the antivivisectionists?)"

	Percent of group who think nothing should be done	
	High School Teachers	Practicing Physicians
No need for it, they aren't a threat, not influential, not worth bothering with..	50%	51%
Publicity might aid them, call attention to them, it's better to ignore them	16	18
Everyone has a right to his own opinion	18	12
No need to combat irrationality, the truth will win out	7	11
They play a valid role in checking, preventing abuses	8	7
They are in the right	3	1
Miscellaneous	1	3
Don't know	1	2
Some gave more than one answer...	104%	105%

Those who favored combatting the antivivisectionists usually proposed programs of education aimed toward the general public, although there was sometimes the suggestion that, since the antivivisectionists are misinformed, educating them would dissuade them from their opposition to medical research. The only other suggestion of any frequency was that attempts to legislate against animal experimentation should be fought and that desired legislation be forwarded. These proposals were:

"What should be done (to combat the antivivisectionists)?"

	Percent of those who think something should be done	
	High School Teachers	Practicing Physicians
Educate the public about the value of animal experimentation	59%	68%
Educate the antivivisectionists, show them how wrong they are	19	16
Try to effect desired legislation, defeat unfavorable laws	10	14
Teach values of research in the school system	9	1
Refute the charges of the antivivisectionists	5	4
Institute self-regulation to meet the objections	3	1
Suppress the antivivisectionists	1	4
Miscellaneous	1	4
Don't know	4	1
Some gave more than one answer.	111%	113%

IN SUMMARY: The general public, for the most part, is not even aware that there is opposition to animal experimentation. Those who are aware often have only vague knowledge of it, but tend to be unsympathetic toward the people in the movement and to regard the movement itself as of no real consequence. Doctors, as an interested group, are far more conscious of the movement, critical of it, and in favor of countering it in some way, usually through popular education. Teachers' opinions fall between those of the general public and the doctors.

APPROACHES TO PUBLIC EDUCATION

The Need

Public unawareness of animal experimentation exists to such an extent that a third do not even know how much public attention the subject has received. Of the remainder who express opinions on this score, the larger number feels that there has not been the right amount* of public attention. Among the teachers and doctors surveyed, a clear majority feels that there has not been proper publicization:

"Do you think the question of the use of animals in medical research has received about the right amount of public attention or not?"

	General Population	High School Teachers	Practicing Physicians
About the right amount	28%	32%	28%
Not the right amount	38	55	72
Don't know	34	13	10
	100%	100%	100%

Those who believe that there has not been the right amount of attention to animal experimentation are likely to feel either that there has been in general too little material made available in the mass media, since they have never seen any mention of the subject, or else that such presentation as there has been has been too one-sided, with too little presentation of the facts favoring animal experimentation and too much publicity to views critical of it. In view of the fact that large sections of the public are not aware of antivivisectionism, it is not surprising that they are more likely to give the first explanation, while the more sophisticated groups of teachers and doctors rely more frequently on the second.

On the other hand, the view that the right amount of public attention is being given to animal experimentation is usually explained by the belief that there is, in general, a good deal of publicity given the subject; oftentimes, it is made explicit that the publicity is favorable to animal experimentation and, therefore, is sufficient. A rather large minority, however, approves of the amount of publicity given the subject only because there hasn't been much, and they feel that there should not be, regarding animal experimentation as a technical matter better left to the specialists--"the less said about it, the better", appears to be their keynote. This viewpoint is more characteristic of teachers and doctors than of the public, itself. The answers given were:

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* The question was asked in terms of "amount", but was often interpreted in terms of the kind of publicity rather than mere quantity.

"Why do you think that? (Why do you think that the question of the use of animals in medical research has or has not received the right amount of public attention?)"

Reasons for saying "right amount":	Percent of those saying "right amount" — General Population	High School Teachers	Practicing Physicians
There's enough publicity, general; both sides receive a good deal of attention, etc.....	46%	36%	38%
Animal experimentation is favorably publicized	13	17	19
Should not get public attention; it's a matter for doctors, people don't need to know about it	20	35	30
People aren't particularly interested in knowing about it.....	4	3	7
Animal experimentation is unfavorably publicized.....	4	2	1
Miscellaneous.....	6	6	4
Don't know why.....	7	1	1
	100%	100%	100%

Reasons for saying "not right amount":	Percent of those saying not "right amount" — General Population	High School Teachers	Practicing Physicians
Too little attention to it, in general; haven't seen or heard anything about it; people know nothing about it	49%	32%	10%
There is too little favorable and/or too much unfavorable to animal experimentation presented	39	57	82
There is too much favorable and/or too little unfavorable to animal experimentation presented	5	2	*
People aren't particularly interested in knowing about it	3	4	2
Should not get public attention.....	2	4	5
Miscellaneous.....	1	1	1
Don't know why.....	1	-	-
	100%	100%	100%

* Less than 0.5%

Teachers and doctors agree that the public does not understand the role of animal experimentation in medicine:

"In your opinion, does the general public pretty well understand the role of animal experimentation in medicine or not?"

	High School Teachers	Practicing Physicians
Understands	21%	25%
Does not	76	71
Don't know	3	4
	100%	100%

When the critical majorities were asked what the main gaps in public understanding are, their answers followed four main lines: one group stressed the lack of understanding of the objectives of animal experimentation, its crucial role in medicine and the benefits resulting from it; a second group emphasized a lack of familiarity with more specific details of animal experimentation, saying that people had no idea of exactly what is done or how the animals are cared for; a third group traced the responsibility for public unawareness to the failure of the medical profession to keep the public informed; the fourth group stressed only the general ignorance, lack of information and indifference of the public, regarding them as too inadequately educated to understand any complex subject and not interested in doing so. The detailed responses are:

"What would you say are the main gaps in public understanding?"

	Percent of those saying public does not understand	
	High School Teachers	Practicing Physicians
Not aware of necessity for animal experimentation, its value, the benefits derived from it	30%	32%
Too little publicity by and for medical research made available to the public; too little effort on part of medical profession to explain it to the public	24	27
People generally lack education, are ignorant, uninformed ...	22	20
Public lacks interest in the subject, not concerned, indifferent	18	13
Don't know how experiments are done, what is done, the extent of it, etc.	18	14
Not aware of excellent care given animals, believe animals are tortured, etc.	8	14
Have only or mainly information from the antivivisectionists..	6	4
Miscellaneous	4	4
Don't know	1	1
Some gave more than one answer	131%	129%

On the basis of this reasoning, most teachers and doctors believe that something further should be done to inform the public:

"Do you think that anything further should be done to give the public a clearer conception than they now have of the role of animal experimentation in medicine?"

	High School Teachers	Practicing Physicians
Yes	77%	79%
No	19	18
Don't know	4	3
	100%	100%

Those who oppose further public education do so for the reasons we have already seen: either they regard people as already favorably disposed toward animal experimentation, or they feel that the public is incapable of understanding it or not interested in doing so, or they feel that medical research is better not publicized, since people will misunderstand and controversy result:

"Why not? (Why shouldn't anything further be done to give the public a clearer conception than they now have of the role of animal experimentation in medicine?)"

	Percent of those who say there "shouldn't be anything further done"	
	High School Teachers	Practicing Physicians
Publicity will stir up controversy, the less said the better	32%	25%
People already favor, support, understand medical research	29	31
It's too technical, not for lay people, they couldn't understand, shouldn't try to	26	19
People aren't interested, don't want to know about it	22	12
There has been enough publicity already	1	9
Miscellaneous	4	9
Some gave more than one answer	114%	105%

The Program

For the most part, doctors and teachers are thinking in terms of popular education using the mass media of newspapers, radio, magazines, movies, etc. As we saw earlier, this was the leading suggestion made when these groups were asked what should be done to combat the antivivisectionists. And when asked what should be done to give the public a clearer conception, 96% of the doctors and 90% of the teachers who felt something should be done proposed this type of information program. The only other suggestion of any frequency was that materials about animal experimentation be incorporated into school curricula,--17% of the teachers and 5% of the physicians recommended this.

When the question is personalized and those who favor doing something to inform the public asked what they could do, answers are primarily in terms of talking to their patients for doctors and talking to their students for teachers, although over a quarter of each group feel they can make no contribution:

"Is there anything that you personally could do? What?"

	Percent of those who think something should be done	
	High School Teachers	Practicing Physicians
Talk about it to school classes	47%	1%
Learn more about it myself.	12	-
Initiate personal conversations with people about it	11	37
Answer criticisms when they arise	7	22
Give talks to groups, write articles	1	10
Influence clubs and organizations to work on the problem	2	2
Miscellaneous	3	4
No, couldn't do anything	27	27
Don't know	2	3
Some gave more than one answer	112%	106%

Two-thirds of the doctors and almost half the teachers who feel that something should be done report that they have sometimes done the things they say they could do to help enlighten the public. Those who haven't frequently explain that the occasion just hasn't arisen; they have never heard criticisms to reply to, never been invited to give a talk or never seen an opportunity to introduce it into their courses. Many teachers admit that it simply never occurred to them, that they had not regarded it as an important issue. The question was:

"Have you ever done anything like that? (If 'No') Why not?"

	Percent of those who feel that something should be done and that they personally could do something	
	High School Teachers	Practicing Physicians
Yes	48%	68%
No, haven't bothered, just didn't think of it, didn't know it was important	24	5
No, the occasion hasn't arisen	19	19
No, not well enough informed myself	8	2
No, too busy, haven't the time	4	5
Miscellaneous	2	3
Some gave more than one answer	105%	102%

Doctors as Spokesmen for Medical Research

About two-thirds of the practicing physicians report that they sometimes discuss with their patients how the treatments they are receiving were developed. For the most part, however, they do this rarely, only 12% reporting that they discuss such matters with most of their patients. As might be expected, doctors who are themselves well informed about medical developments are more likely to discuss them with their patients: 76% of the doctors who were informed about all six medical discoveries did so as compared with 50% of those informed about only one or none.* Reasons for discussing treatments with the patients refer primarily to the patient-doctor relationship; thus, doctors most often explain that they have an interest in making sure that patients understand their cases in order to secure their cooperation, and, often, the patients ask about it themselves. Doctors much less often use it as an educational device or more especially, as a means of indicating the importance of medical research. The question:

*See page 12 for a discussion of doctors' information.

"What are your reasons for discussing it (how the treatment you are using came to be discovered or developed)?"

	Percent of those who do discuss it
Want patients to understand the treatment they are receiving, what's being done and why it is necessary	44%
Patients are interested, ask about it	34
Want to correct misunderstandings, make people better informed about medicine in general	18
Want to further medical research, combat antivivisectionism	9
It gives patient confidence in the doctor	4
Miscellaneous	4
Some gave more than one answer	113%

Doctors who seldom or never engage in such discussions with their patients usually explain that they are too busy, don't have the time to give to it, that, patients aren't interested, anyway, or that patients would find it much too technical to follow and emerge with confusion and misinformation:

"Do you ever discuss with your patients how the treatment you are using for them came to be discovered or developed? (If 'Yes') Do you do this with most patients or only a few? Why? (If 'No') What are your reasons for not discussing it?"

Discuss it with most patients		12%
Discuss it with only a few patients		
I'm too busy, it takes too much time	16%	
Most patients are indifferent, not interested	15	
Most patients couldn't understand	11	
Occasion doesn't arise, simple treatments don't call for explanation, patients trust doctor	10	
Only when patient asks about it, few patients ask about it	7	
Most patients aren't misinformed	4	
Miscellaneous	3	55*
Do not discuss it with patients		
I'm too busy, don't have the time	13%	
Patients not interested, don't ask about it	11	
Patients couldn't understand	6	
Patients trust their doctors, don't have to explain	3	
Patients are too sick, worried, upset to be bothered with this	2	
Patients already know about it	1	
Would hurt my practice	1	
Miscellaneous	2	
Don't know why	1	33*
		100%

*These figures are less than the totals of their respective columns because some respondents gave more than one type of explanation.

About two-fifths of the doctors give unqualified approval to the technique of doctor-patient conversation as a means of educating people about medical developments, even though, as we have just seen, most doctors had not thought of such discussions in this light. These doctors feel that it is a good way to educate people, especially because of the doctor's prestige with his patients, and because it could be presented to patients in the context of their own illnesses.

Another third of the doctors give only qualified approval, saying that the idea is all right, as far as it goes, but that in practice, doctors probably wouldn't have time to do it and that, in any case, it is a relatively slow educational method which reaches people only one at a time.

About a fourth of the doctors express outright disapproval either on the grounds of lack of time or because it fails to reach many people or because they feel patients would not be interested or able to understand.

These data are shown in the following table:

"What do you think of this (discussing with patients how treatments came to be discovered or developed) as a way of educating people about medical developments? Why?

Unqualified approval

It's a good way to educate people about medicine or medical research, generally.....	15%	
The doctor is in a good position to do this; he is trusted, believed, regarded as an authority	14	
It helps people understand their illness, makes them more cooperative, easier to treat.	12	
Miscellaneous	2	41%*

Qualified approval

If there were time for it, it would take too much time, doctors don't have the time.....	16%	
Too limited, doesn't reach enough people, doesn't do as much good as something else ..	12	
If people can understand it, if it doesn't confuse them	5	
If people are interested in it	5	
Miscellaneous	3	35*

Disapproval

Takes too much time, doctors don't have enough time	7%	
Too limited, wouldn't reach enough people, doesn't do as much good as something else..	6	
People can't understand, get confused, misinformed	6	
People aren't interested	5	
People are too worried, nervous, when they see doctors, only thinking of their own illnesses, don't want to be bothered with this	4	
Miscellaneous	2	24*
		100%

*These figures are less than the totals of their respective columns because some respondents gave more than one type of explanation.

Having literature on medical research available for patients is approved of by a larger number of doctors,--64% say it's a good idea as compared with 31% who disapprove. The reasoning of the doctors who favor literature shows clearly that they favor educating the public, and, to a certain extent, regard literature as a time-saving device for themselves. Those who oppose literature assume that people would be too little interested to bother to read it or too uneducated to be able to understand it; some fear that dissemination of popularized medical information to the public would have harmful psychological and medical effects,while others simply wish to see the educational work of medicine separated from the average practitioner. In more detail:

"Do you think it would be a good idea or a bad idea for doctors to have literature explaining medical research that they could give their patients? Why?"

Good Idea		
It educates the public, gives them information, understanding about medicine, medical research	30%	
It saves time for the doctor, patients can read it instead of having him explain, gives them confidence in his treatment, understanding of what he is doing	13%	
It would combat the antivivisectionist point of view, show usefulness of medical research	9%	
Doctor's office is logical place for it, people more likely to be interested in subject in connection with own illness, more likely to believe information they get there	5%	
Written materials can be taken with them, read at leisure	4%	
Miscellaneous	6%	64%*
Bad Idea		
It would not be effective, people aren't interested, wouldn't read it	12%	
It would just confuse people, it's too technical a subject, they couldn't understand it	10%	
A little medical knowledge is or would be dangerous, would encourage self-treatment, create phobias, promote criticism of doctor	10%	
Other educational approaches are more effective, more desirable, this is not the doctor's job	7%	
Miscellaneous	2%	31*
Don't know	5	
		100%

*These figures are less than the totals of their respective columns because some respondents gave more than one type of reason.

I N S U M M A R Y:

A large part of the public feels that the subject of animal experimentation has not been properly publicized. This viewpoint is expressed more strongly by teachers and by doctors who tend to regard the public as uninformed about animal experimentation and to favor further efforts at public education along these lines. For the most part, teachers and doctors visualize their own contributions to such a program as influencing the people with whom they usually come in contact: students, on the one hand, and patients on the other. Many doctors have, at least occasionally, discussed medical developments with their patients and, though usually they were not thinking of it as a general device for educating people about medical research, a good many regard it as an effective technique. It is probable that, if adequately motivated, many doctors would cooperate with an educational program about medical research both in this way and by making literature available through their offices.

APPENDIX

OUTLINE OF THE STUDY

The Samples*

This survey is based on three samples:

1) A national cross-section of the adult population of 2519 cases. Quotas of interviews were assigned to each of the nine major geographical divisions and within them to cities and towns of various sizes in proportion to actual population. Within each of the sample points, respondents were selected by the interviewers in ways which insured the proper representation of age, sex, and racial groups.

2) A national cross-section of physicians in private practice of 485 cases. This sample was designed to secure regional and size-of-place representation, as in the case of the national sample. In each locality, the doctors to be interviewed were randomly selected from lists of all doctors in private practice in the community. These lists were secured from a commercial agency. Interviews were obtained with about 72% of the originally designated cases, 17% were found to be ineligible for inclusion in the sample--no longer in practice, dead, moved away, and the like--while 11% refused to participate. Randomly selected doctors were substituted for these last two groups.

   Slightly over half the doctors in the sample are in general practice, the remainder specialize to some degree, four-fifths limiting their practices to a specialty, the other fifth giving it special attention. Two-fifths of the full and part specialists are certified by the Specialty Boards. Details are as follows:

In general practice	54%
Specialize in:	
Surgery	10
Gynecology and Obstetrics	8
Internal Medicine	8
Otolaryngology	5
Opthalmology	4
Pediatrics	4
Neurology and Psychiatry	3
Dermatology	1
Other	8
Some specialists named more than one field	105%

*More technical information on the methods of sampling employed is available on request.

3) A national cross-section of public high-school teachers of 508 cases. As in the other two cases, this sample was designed to yield representativeness of region and size of place, with the assumption that teachers were distributed proportionately to the general population. Interviews were divided among several schools in each community, and teachers to be interviewed selected randomly within each school. To simplify the sampling, teachers in junior high schools were omitted from the sample, and, where there were segregated school systems Negro teachers were omitted. The distribution of teachers by subjects taught is shown below.

Subject Taught	
English, Literature	20%
History, Social Studies	16
Mathematics	12
Natural Science, Biology	10
Art, Music	7
Business, Commercial subjects	7
Physical Science, Chemistry, Physics	6
Foreign languages	6
Vocational training, Shop	6
Physical Education, Gym	5
Other	5
	100%

Characteristics of the Sample

For interested readers, descriptive information about these samples is shown below:

	General Population	High School Teachers	Practicing Physicians
Age			
21-29	20%	13%	3%
30-39	26	26	29
40-49	22	36	29
50-59	15	21	18
60-69	11	4	13
70 and over	6	-	8
	100%	100%	100%
Sex			
Male	49%	42%	95%
Female	51	58	5
	100%	100%	100%

	General Population	High School Teachers	Practicing Physicians
Marital Status			
Single	13%	41%	6%
Widowed	9	2	5
Divorced, separated	3	3	1
Married	75	54	88
	100%	100%	100%
Parental Status			
Children	70%	42%	80%
No children	17	17	14
Percent ever married	87%	59%	94%
Religion			
Protestant	69%	81%	61%
Catholic	21	13	19
Jewish	6	4	16
Other Non-Christian	*	-	*
None	4	2	4
	100%	100%	100%
Protestant Denominations			
Baptist	18%	14%	7%
Methodist	17	25	13
Presbyterian	7	11	13
Lutheran	6	5	3
Episcopalian	4	6	9
Congregationalist & Unitarian	2	7	6
Quakers	1	2	1
Christian Scientists	1	1	-
Fundamentalist Sects	10	7	4
Miscellaneous	*	1	1
Undetermined	3	2	4
Percent Protestant	69%	81%	61%
Church Attendance			
Once a week	37%	54%	31%
1-3 times a month	20	22	22
Less than once a month	30	20	37
Never	13	4	10
	100%	100%	100%

*Less than 0.5%.

	General Population	High School Teachers	Practicing Physicians
Nativity			
Native of native father	74%	82%	64%
Native of foreign-born father	18	16	24
Foreign born	8	2	12
	100%	100%	100%
Race			
White	91%	100%	97%
Colored	9	-	3
	100%	100%	100%
Veteran Status			
Served in Armed Forces in World War II	15%	Not Asked	Not Asked
Did not	85%		
	100%		
Education			
Some College	20%	Not Asked	Not Asked
Some High School	45		
Grade School	34		
No formal schooling	1		
	100%		

	General Population	High School Teachers	Practicing Physicians
Socio-Economic Status			
Respondent's Occupation			
Professional and semi-professional workers	5%	100%	100%
Proprietors, managers, and officials excluding farm	7		
Clerical, sales, and kindred workers	8		
Craftsmen, foremen and kindred workers (skilled workers)	7		
Operatives and kindred workers (semi-skilled workers)	7		
Laborers, non-farm (unskilled workers)	3		
Service workers	6		
Farmers	9		
Not employed	48		
	100%		
Occupation of Main Earner in Household			
Professional and semi-professional workers	8%	Not Asked	Not Asked
Proprietors, managers, and officials excluding farm	15		
Clerical, sales, and kindred workers	12		
Craftsmen, foremen and kindred workers (skilled workers)	14		
Operatives and kindred workers (semi-skilled workers)	12		
Laborers, non-farm (unskilled workers)	6		
Service workers	8		
Farmers	15		
No main earner, retired, pensioned, etc.	10		
	100%		

	General Population	High School Teachers	Practicing Physicians
Family Income			
Under $500 a year	4%	Not Asked	Not Asked
$500 to $1,000	9		
$1,000 up to $2,000	17		
$2,000 up to $3,000	27		
$3,000 up to $4,000	18		
$4,000 up to $5,000	10		
$5,000 up to $10,000	8		
$10,000 or more	2		
Information refused	5		
	100%		
Region of Residence			
New England States	8%	7%	11%
Middle Atlantic States	21	21	25
South Atlantic States	9	11	10
East South Central States	9	7	6
West South Central States	9	10	7
East North Central States	22	20	23
West North Central States	9	10	7
Mountain States	3	3	3
Pacific States	10	11	8
	100%	100%	100%
Size of Place of Residence			
City over 500,000	31%	30%	34%
50,000 - 500,000	22	22	29
2,500 - 50,000	15	23	25
Under 2,500 (Rural Non-Farm)	15	24	11
Farm	17	1	1
	100%	100%	100%

The Interview Schedules

The questionnaires used in this study are reproduced in full in the following pages.

The Questionnaire for the General Public

1. How much progress would you say there has been in the field of medicine and surgery in the last 25 years--a great deal, a fair amount, or hardly any?

   A. (IF "A GREAT DEAL") What do you think are the main reasons why medicine has made so much progress in the last 25 years? (Anything else?)

   B. (IF "A FAIR AMOUNT" OR "HARDLY ANY") What do you think are the main reasons why there hasn't been more progress in medicine in the last 25 years? (Anything else?)

2. A. What is your opinion of most doctors today?

   B. Why do you feel this way?

3. Do you think most doctors are too interested in making money from their patients or not?

   A. (IF "MOST ARE") What makes you feel this way?

4. How much interest do you take in new medical discoveries like the discovery of new drugs or new ways of treating diseases? Would you say you are very interested, fairly interested, or hardly interested at all?

5. Have you ever had a serious illness or an operation?

   A. (IF "YES") What was it (the last one you had)?

   IF "ILLNESS":

   (1) Do you happen to know what medicine was used in treating you? What?

   (2) (IF SPECIFIC MEDICINE IS NAMED) As far as you know, how did they first find out that (name of medicine) was good for (name of illness)?

   IF "OPERATION":

   (3) How do you suppose they invented that kind of operation?

6. Do you happen to know of any medicine that is made from the organs or tissues of animals? What?

7. Have you ever read or heard anything about the use of live animals in teaching and research in medicine?

   IF "YES":

   A. Where did you hear or read about this?

   B. What sorts of things do they generally use live animals for in medicine? (Is there anything else you know of?)

8. In general, do you favor or oppose the use of live animals in medical teaching and research?

   A. (IF "FAVOR" OR "OPPOSE") Why?

9. (HAND RESPONDENT CARD) Will you look over these three statements and tell me which one comes closest to the way you feel about experiments with live animals?

   A. Almost nothing important in medicine has ever been discovered from experiments with animals and probably nothing important ever will be.

   B. Maybe experiments with animals did lead to some important discoveries in the past, but further experiments will not add anything now.

   C. Experimenting with animals is one of the main ways that medicine has progressed in the past, and it needs to be continued.

10. When medical schools have animals that they are using in research, do you think they take as good care of them as individual owners would?

    IF "NOT AS GOOD":

    A. In what ways is the care not as good?

    B. What do you think are the reasons for this?

    IF "CAN'T COMPARE THE TWO":

    C. What are the differences between them?

11. As far as you know, how do doctors decide on what kind of animals to use for their work?

12. In general, when doctors use animals in their work, do you think they really try to keep from hurting the animals?

    A. (IF "DO NOT") What do you think is the reason they don't?

13. Do you think doctors should be free to use any kind of animal in their work or are there some kinds of animals that they should not be allowed to use?

    IF "SHOULD NOT BE ALLOWED TO USE SOME":

    A. What kind of animals should not be used for medical research?

    B. Why should these animals not be used?

    C. If doctors felt that these animals (animals named by respondent in A) were better suited to their work than any other kind of animal, would you still be against their using them or not?

       (1) (IF "STILL AGAINST") Why?

14. (HAND RESPONDENT CARD) If the work doctors are doing is going to hurt the animals used, are there any (other) animals on this list that you think should not be used? (LIST: Cows, rats, frogs, horses, cats, guinea pigs, dogs, rabbits, monkeys.)

15. (HAND RESPONDENT CARD) As you know, doctors use animals for different things. Do you think it is all right or not all right for doctors to use animals for each of these?

A. A new medicine is tried out by giving animals some disease and seeing if that medicine will cure them.

B. A live animal, under an anesthetic to prevent pain, is cut open to show medical students how the different parts of the body work.

C. Medical students learn how to perform operations by practicing on live animals that have nothing wrong with them while the animals are under anesthesia to prevent pain.

D. Doctors studying a disease that can't be cured now give it to an animal in order to operate on it and see what goes on inside that animal when it has the disease.

16. As far as you know, where do medical schools get most of the animals they use?

17. (UNLESS "DON'T KNOW TO QUESTION 16) Do you think this is a good way for medical schools to get the animals they use or would some other way be better?

A. (IF "SOME OTHER WAY BETTER") What way?

18. As far as you know, do medical schools generally have any trouble getting animals to use for research purposes?

19. In most cities and towns, stray dogs are picked up by the authorities. What do you think should be done with these dogs, if they are not claimed by their owners, and if nobody else wants them as pets? Do you think they should be put to death by the authorities or should they be turned over to medical schools to be used in research?

20. Some people say that pet dogs or cats are stolen in order to sell them to medical schools for research purposes. Do you think this is true or not?

IF "TRUE":

A. Would you say this happens often or only once in a while?

B. When this happens, who would you say is mainly at fault--the owner of the pet, the person who steals it, or the medical school that buys it?

(1) (IF "MEDICAL SCHOOL") Why?

21. Have you ever heard or read of any people or groups that are trying to keep medical schools from using animals for teaching and research purposes?

IF "YES":

A. What people or groups?

B. From what you know, what kind of people would you say they are?

C. Have you ever joined one of these groups or given them any money?

D. What have these people or groups done so far? Anything else?

E. Do you think they will succeed in keeping medical schools from using animals or not?

F. (UNLESS "DON'T KNOW TO E) Why?

22. Do you think that it is important to have rules and regulations covering the way animals are used in medical research or should each doctor be allowed to decide for himself how the animals are to be used?

IF "RULES AND REGULATIONS":

A. What rules should there be? (Any others?)

B. Do you think that the medical schools should set up the rules or should there be laws setting up the rules for the medical schools?

IF "LAWS":

(1) Why do there have to be laws?

(2) Do you think that the present anti-cruelty laws in your state do the job or not?

(a) (IF "DO NOT") Why not?

23. Do you think the question of the use of animals in medical research has received about the right amount of public attention or not?

A. (IF "RIGHT AMOUNT" OR "NOT RIGHT AMOUNT") Why do you think that?

24. I wonder if you'd tell me how much you had thought about the whole question of using animals in medical experiments before today. Would you say a good deal, a little, or not at all?

FACTUAL DATA

1. Do you usually read a daily newspaper? Which?

A. (IF "HEARST") Have you ever read any articles in that paper about how animals are treated in medical research?

(1) (IF "YES") What did you think of them?

2. What was the last grade or year you completed in school?

(IF ANY COLLEGE OR HIGH SCHOOL) Did you ever have any courses in which either you or the instructor did experiments with live animals?

3. Did you serve in any branch of the Armed Forces during World War II?

4. What is your approximate age?

5. Do you happen to have any pets? What?

A. (IF "NONE") Did you ever have a pet? What?

6. How often do you go to church or religious services?

7. What religion do you consider yourself?

A. (IF "PROTESTANT") What denomination?

8. In what country were you born?

   A. (IF "UNITED STATES") In what country was your father born?

9. Are you married at present?

   A. (IF EVER MARRIED) Do you have any children?

10. Respondent's Occupation or Status. (If respondent is not the main earner in the family specify occupation of main earner, also.)

11. Would you tell me in which of these general groups your own total annual family income falls--before taxes? (HAND RESPONDENT CARD) (We need this information simply to make sure we are getting a good sample.)

12. Did you ever spend any time on a farm?

    IF "YES":

    A. Did you live there or vacation there?

    B. Was that when you were a child or since you've been grown up?

13. Sex

14. Economic Level

15. Race

16. Size of Town Where Respondent Lives

17. Region of Residence

18. Date of Interview

The Questionnaire for High School Teachers and Practicing Physicians

1. How much progress would you say there has been in the field of medicine and surgery in the last 25 years--a great deal, a fair amount or hardly any?

   A. (IF "A GREAT DEAL") What do you think are the main reasons why medicine has made so much progress in the last 25 years? (Anything else?)

   B. (IF "A FAIR AMOUNT" OR "HARDLY ANY") What do you think are the main reasons why there hasn't been more progress in medicine in the last 25 years? (Anything else?)

2. Do you think that animal experimentation has made any contribution to medical progress or not?

   A. (IF "YES") What contributions has it made?

   B. (IF "NO") Why do you feel this way?

3. Here are some important discoveries in medicine. Do you happen to know what part, if any, animal experimentation has played in the development of each of them? (What?)

   A. Penicillin
   B. Insulin
   C. The Sulfa Drugs
   D. Small Pox Vaccine
   E. Surgical procedures for saving "blue babies"
   F. Streptomycin

4. In general, do you favor or oppose the use of live animals in medical teaching and research?

   A. (IF "FAVOR" OR "OPPOSE") Why?

5. When medical schools have animals that they are using in research, do you think they take as good care of them as individual owners would?

   IF "NOT AS GOOD":

   A. In what ways is the care not as good?

   B. What do you think are the reasons for this?

   IF "CAN'T COMPARE THE TWO":

   C. What are the differences between them?

6. In general, when doctors use animals in their work, do you think they really try to keep from hurting the animals?

   A. (IF "DO NOT") What do you think is the reason they don't?

7. Do you think doctors should be free to use any kind of animal in their work or are there some kinds of animals that they should not be allowed to use?

IF "SHOULD NOT BE ALLOWED TO USE SOME":

A. What kinds of animals should not be used for medical research?
B. Why should these animals not be used?
C. If doctors felt that these animals (animals named by respondent in A) were better suited to their work than any other kind of animal, would you still be against their using them or not?

(1) (IF "STILL AGAINST") Why?

8. As far as you know, where do medical schools get most of the animals they use?

9. (UNLESS "DON'T KNOW TO QUESTION 8) Do you think this is a good way for medical schools to get the animals they use or would some other way be better?

A. (IF "SOME OTHER WAY BETTER") What way?

10. As far as you know, do medical schools generally have any trouble getting animals to use for research purposes?

11. In most cities and towns, stray dogs are picked up by the authorities. What do you think should be done with these dogs, if they are not claimed by their owners, and if nobody else wants them as pets? Do you think they should be put to death by the authorities or should they be turned over to medical schools to be used in research?

12. Have you ever heard or read of any people or groups that are trying to keep medical schools from using animals for teaching and research purposes?

IF "YES":

A. What people or groups?
B. From what you know, what kind of people would you say they are?
C. What have they been able to accomplish so far? Anything else?

13. As far as you know, are the antivivisectionists (the people who oppose animal experimentation) a real threat to medical research or not?

A. (IF "ARE" OR "ARE NOT") Why do you feel this way?

14. Do you think that anything should be done to combat the antivivisectionists or not?

A. (IF "SHOULD COMBAT") What should be done?

B. (IF "SHOULD NOT") Why not?

15. Do you think that it is important to have rules and regulations covering the way animals are used in medical research or should each doctor be allowed to decide for himself how the animals are to be used?

IF "RULES AND REGULATIONS":

A. What rules should there be? (Any others?)
B. Do you think that the medical schools should set up the rules or should there be laws setting up the rules for the medical schools?

IF "LAWS":

(1) Why do there have to be laws?
(2) Do you think that the present anti-cruelty laws in your state do the job or not?

(a) (IF "DO NOT") Why not?

16. Do you think the question of the use of animals in medical research has received about the right amount of public attention or not?

A. (IF "RIGHT AMOUNT" OR "NOT RIGHT AMOUNT") Why do you think that?

17. In your opinion, does the general public pretty well understand the role of animal experimentation in medicine or not?

A. (IF "DOES NOT") What would you say are the main gaps in public understanding?

18. Do you think that anything should be done to give the public a clearer conception than they now have of the role of animal experimentation in medicine?

IF "YES":

A. What should be done?
B. Is there anything that you personally could do? What?
C. (UNLESS "DON'T KNOW" OR "NO" TO B) Have you ever done anything like that? Why or why not?

IF "NO":

D. Why not?

19. (DOCTORS ONLY) Do you ever discuss with your patients how the treatment you are using for them came to be discovered or developed?

IF "YES":

A. What are your reasons for discussing it?
B. Do you do this with most patients or only a few? Why?

IF "NO":

C. What are your reasons for not discussing it?

20. (DOCTORS ONLY) What do you think of this as a way of educating people about medical developments? Why?

21. (DOCTORS ONLY) Do you think it would be a good idea or a bad idea for doctors to have literature explaining medical research that they could give their patients?

A. (IF "GOOD" OR "BAD") Why?

FACTUAL DATA

1. Do you usually read a daily newspaper? Which?

A. (IF "HEARST") Have you ever read any articles in that paper about how animals are treated in medical research?

(1) (IF "YES") What did you think of them?

2. What is your approximate age?

3. Do you happen to have any pets? What?

A. (IF "NONE") Did you ever have a pet? What?

4. Are you married at present?

A. (IF EVER MARRIED) Do you have any children?

5. How often do you go to church or religious services?

6. What religion do you consider yourself?

A. (IF "PROTESTANT") What denomination?

7. In what country were you born?

A. (IF "UNITED STATES") In what country was your father born?

8. Did you ever spend any time on a farm?

IF "YES":

A. Did you live there or vacation there?
B. Was that when you were a child or since you've been grown up?

9. (DOCTORS ONLY) Are you in general practice or do you specialize?

IF "SPECIALIZE":

A. Do you limit your practice to your specialty or do you give it special attention?
B. What field do you specialize in?
C. Are you a Diplomate of the American Board of that specialty?

9. (TEACHERS ONLY) What subject do you teach? (Enter only major subject taught.)

10. Sex
11. Race
12. Size of Town Where Respondent Lives
13. Region of Residence
14. Date of Interview