

**ANIMAL ISSUES IN THE MEDIA:
A GROUNDBREAKING REPORT**

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HIGHLIGHTS

- **Television is by far the largest single source of everyday information and imagery about animals, discharging, in prime-time alone, an average of 34 animal images each week into the common cultural environment.** Even though the average viewer will see more animals than old people, or poor people, or Latino and Asian Americans put together, television still underrepresents the animal world. A more adequate and diverse portrayal of animals as parts of life and nature would facilitate a more balanced representation.
- **Animals appear in their own habitat at their peril.** Although most animals in prime-time are treated well, many are treated badly, especially wild animals. In Saturday morning children's programs, wild animals are seen mistreated in 12 scenes for every one scene of good treatment.
- **Animal roles overplay villainy.** While humans have many times more heroes than villains, animals have almost as many villains as heroes. They are more likely to be seen as a threat, thus seeming to justify their own victimization.
- **Animals suffer violence/victim overkill.** Animals are more than twice as likely to be hurt or killed as humans are. In prime-time more than one-third and in Saturday morning children's programs more than half of the animal cast suffer overt physical violence.
- **Animal rights activists are depicted as violent most of the time they are shown.** Positive depictions of animal rights activists as calm, rational and non-violent were found in only 3 of 32 scripts featuring animals. In general, the disapproval of animal rights activism is at least twice as frequent as its approval.
- **Stories of activism and legislation account for nearly half of all news about animals.** Violence, conflict, and opposition to animal rights claim much press attention. However, over time, news of activism stimulates policy, legislative and other types of print media attention.

ANIMAL ISSUES IN THE MEDIA

A Report to The Ark Trust, Inc.

by

George Gerbner

Non-human animals appear in a variety of forms and functions. In some cases they are loved and admired, but often they are confined, hunted, exterminated, eaten, or worn on our bodies. Most often, however, they play all those and other roles in stories told by the mass media.

What kinds of animals do we see on television and in print media? What are the trends, themes, scenes, and contexts in which animals appear? How are they treated? What are the roles for which they are cast and the fate for which they are destined? What issues drive press and magazine coverage, and how do animal activism, legislation, science and other issues play out in the coverage? Finally, what are some implications for further research, activity, and policy?

These are questions we shall address in this report. The report presents the findings of a benchmark study that begins the task of systematically tracking the most pervasive sources that cultivate public conceptions of animals, and help shape behaviors, rules, and laws about the use and treatment of animals.

The study was conceived and commissioned by The Ark Trust, Inc., a national nonprofit animal protection organization, in connection with its continuing campaign to monitor treatment of animal issues by the major media. The encouragement, financial support, patience and advice of The Ark Trust, Inc., and particularly its President, Gretchen Wyler, and Executive Director, Dr. Michael Giannelli, were essential to the conduct and completion of the study.

The analysis was conducted by the Cultural Indicators (CI) research team at the University of Pennsylvania¹ and completed at the University City Science

¹ CI is an ongoing research project that monitors television and relates it to viewers' conceptions of reality. The research began in 1967-68 with a study for the National Commission on the Causes and Prevention of Violence. It continued under the sponsorship of the Surgeon General's Scientific Advisory Committee on

Center in Philadelphia. Research assistants were Vibha Agrawal, S. Marcus Hswe, Ilicia Stengel, Nejat Ozyegin, Sheila Witherington and Ben Wyche.

ABOUT THE REPORT

It is important to consider the strengths and limitations of this study. It was not designed to deal with individual programs, stories, or perceptions. Motion pictures, television newsmagazines, documentaries and other media products, selected essentially by smaller audiences, are not included. This first benchmark study concentrates on the mainstream of the common cultural environment: television viewed from childhood and throughout life, where more animal representations can be found each week than in any other single source, and news and periodical literature read by most literate persons. The reason for the priority given to the "wholesale" rather than the more selectively targeted "retail" dissemination of messages is the vast difference in scope. For example, the total audience of all motion pictures portraying animals for a whole year would be a fraction of one day's prime-time television audience exposed to animal messages.

In a sense, therefore, the principal limitation of this study -- its concentrated mainstream media sample -- is also its major strength. The study focuses on the aggregate and inescapable patterns of representations that large communities absorb in common over long periods of time. These are the main bases for shared conceptions, policies and actions. The investigation of media that are more selectively used by smaller audiences, but require research of much larger scope, may be undertaken in future studies.

This report contains two major parts, plus a Bibliography, and an Appendix. The first part presents the findings of the television study: the analysis of samples of network television prime-time and Saturday morning children's dramatic programs, and of a selection of television scripts.

Television and Social Behavior, the National Institute of Mental Health, The White House Office of Telecommunications Policy, the American Medical Association, the Administration on Aging, the National Science Foundation, the W. Alton Jones Foundation, the Hose Bunka Foundation of Japan, the Screen Actors' Guild, the American Federation of Television and Radio Artists, the National Cable Television Association, the U.S. Commission on Civil Rights, the Institute for Mental Health Initiative, the Turner Broadcasting System, the Women's Initiative of the American Association of Retired Persons, the Center for Substance Abuse Prevention of the U.S. Public Health Service and the Robert Wood Johnson Foundation.

The second part deals with print media: the analysis of titles in *The New York Times Index* and the *Reader's Guide to Periodicals*. Every entry under the main title "Animals" was recorded, classified into issue-categories, tabulated, and analyzed.

Methodological details can be found in the publications listed in the Bibliography (especially Gerbner et al., 1993 and 1994). The Appendix contains all Tables.

TELEVISION

Studies conducted by the Cultural Indicators project and other independent investigators have demonstrated that the television world of fictional entertainment is the most compelling and varied -- even if not the most reliable -- common source of learning about the real world (Ellis & Sekura, 1972, Gerbner 1988; Gerbner et. al 1993; Morgan, 1984; Hawkins and Pingree, 1982; Morgan and Signorielli, 1990). This study of the portrayal of animals in television programs was based on the Cultural Indicators database of prime-time (7 to 11 p.m.) and Saturday morning children's fictional programs aired on the major television networks (Table 1).

Trends in animal themes

The 20-year television program sample of 1,478 prime-time and 974 Saturday morning children's programs, concluding with the 1992-93 season, was used for an analysis of trends in thematic representations only. Programs in that sample had been coded by an earlier instrument which called for observing and recording the significant appearance of the themes of "animals and/or nature." This category includes programs with nature themes but without animals. Therefore, assuming that the thematic mix is reasonably stable, the 20-year sample can yield a rough indication of trends over time.

Table 3 shows that a 20-year average of 11.5 percent of prime-time programs contain significant representations of animals and/or nature. For the same time period, more than half (53.0 percent) of Saturday morning children's programs contain significant themes of animals and/or nature. A comparison with the 1993-94 season's figures (last

line of Table 3), which include only "animals" as a theme, indicates that in prime-time 6.0 percent and in Saturday morning children's programs 57.9 percent present animal themes (without "nature"). It seems that excluding "nature" reduces the prime-time but not the Saturday morning children's programs' thematic representation of animals. A nature theme is not as likely to include animals in prime-time as in Saturday morning children's programs. The relative paucity of animals shown in their own native habitat in prime-time may have implications for the way they are treated.

The presence of violence in the same programs in the 1993-94 sample is shown in Table 4. Violence was defined as overt, physical hurting or killing, or the threat of hurting or killing. Four out of the five prime-time and more than half of the Saturday morning programs that contain animal themes also portray violence committed by or against animals.

A correlational analysis of the occurrence of animal and violence themes in the same programs (Table 5) yields significant coefficients. Although the frequency of violence in these programs is no higher than in other programs found in our studies (e.g. Gerbner, et al. 1994), neither do they support the conventional trade wisdom that the appearance of animals makes the programs more suitable for family and child viewing.

Animal census

The instrument of analysis developed for this study was applied to the 1993-94 season's program sample; therefore, that sample of 84 prime-time and 38 Saturday morning children's dramatic (fictional) programs is used in all subsequent analyses.

A total of 34 animal characters appeared in the prime-time and 192 (mostly cartoon) characters in the Saturday morning children's programs. Table 2 shows that in prime-time, 14 dogs and 9 horses make up two-thirds of the population of 34 animals.

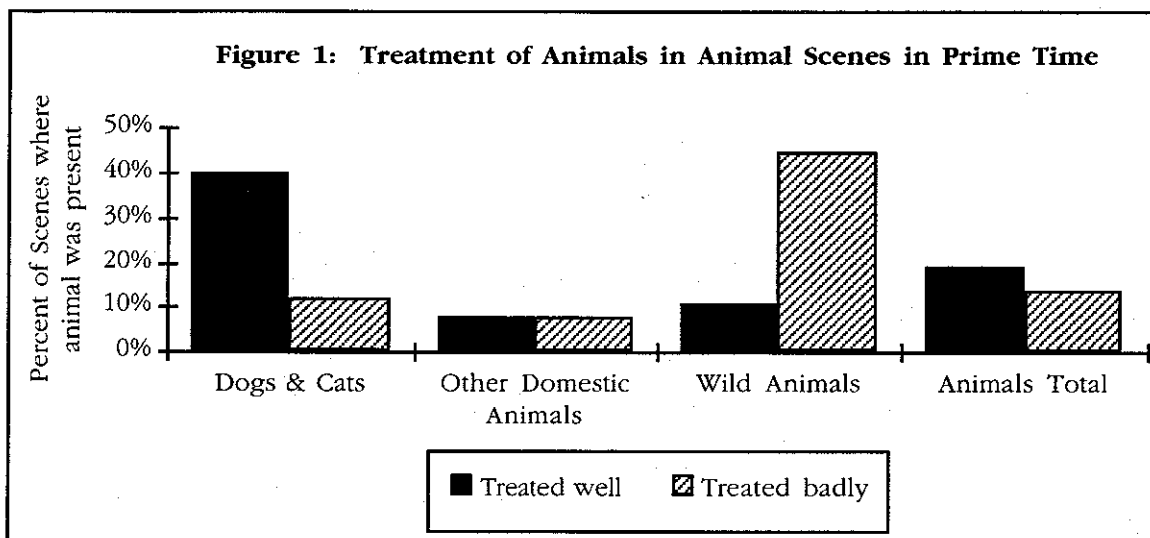
A greater variety of canines, felines, bovines, fowl and reptiles populate Saturday morning children's programs. About three-quarters (73.4 percent) talk and walk like humans. Of the total of 192 animals (both realistic and "humanized"), dogs lead with 27, followed by ducks (13), cats (11), the notorious turtles (8), various types of fish (8), reptiles (7), and wolves, chicken and cows (6 each). Other identifiable species, each fewer in numbers, add up to a total of 47. Fantasy animals also number 47.

Animal scenes

Scenes are units of analysis defined as action among the same characters. A change in characters, animal or human, starts a new scene. In the fall 1993-94 sample, 73 scenes presented 34 animals in prime-time and 103 scenes portrayed 109 animals in Saturday morning children's programs.

Tables 6 and 7 show the treatment of different groups of animals in prime-time and in Saturday morning children's programs. The treatment was judged clearly good if the animals were praised, fed, nursed, etc., and clearly bad if they were beaten, hurt or otherwise made to suffer or die.

Figure 1 (below) represents the treatment of animals in prime-time. All in all, 19.2 percent of the scenes show animals treated well and 13.7 percent show animals treated

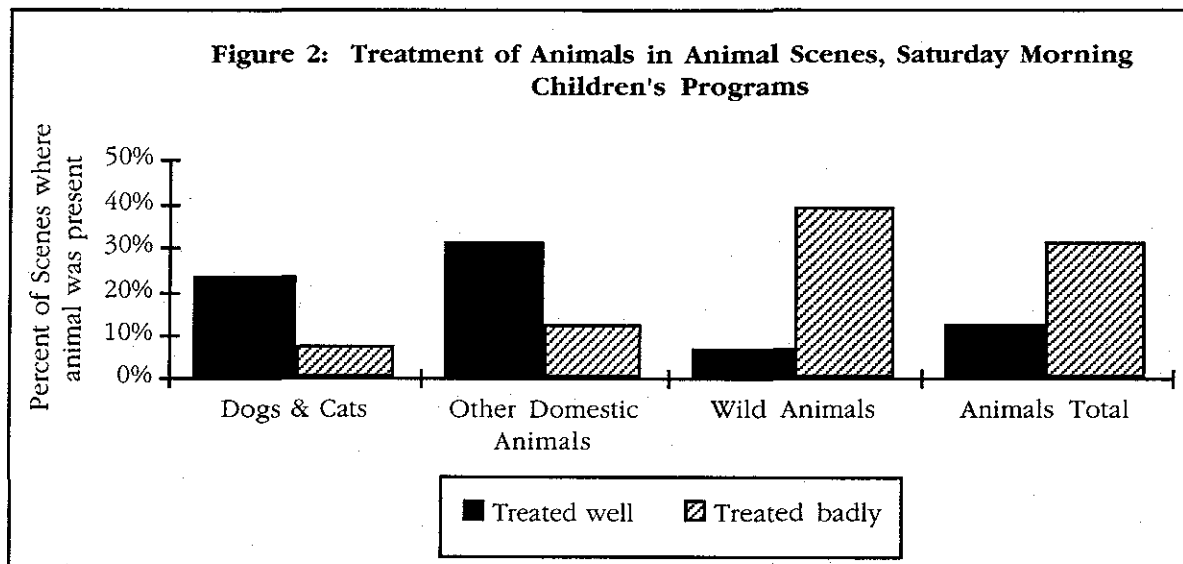


badly; the rest are mixed or ambiguous. The relative balance of treatment was computed as a ratio of good vs. bad treatment. For every 10 scenes in which animals are treated well, there are 7 scenes in which they are treated badly.

However, different animals receive different treatment. For every 10 scenes in which dogs and cats are treated well, in 3 they are treated badly. For other domestic animals, such as horses, the ratio is 10 for 10 -- an even division of scenes of good and

bad treatment. Wild animals suffer ill treatment in four times as many scenes as in scenes in which they receive good treatment.

The Saturday morning children's programs sample contains a total of 103 animal scenes and reveals an even greater extent of mistreatment than in prime-time. The overall proportions for the different kinds of treatments are represented in Figure 2 (below). While



in prime-time, for every 10 scenes in which animals are treated well, there are 7 in which they are treated badly, in Saturday morning children's programs for every 10 scenes in which animals are treated well, there are 25 in which they are treated badly. Furthermore, for every 10 scenes in which wild animals are treated well, there are 58 scenes where they are treated badly.

Table 7 also shows the significant effect of context. Wild animals in non-domestic settings fare worst of all. Their ratio of good vs. bad treatment is 10/120, or 12 times more bad than good treatment.

Animal roles in prime-time

Animals appear on television mostly as characters cast to perform dramatic functions. A typical week's prime-time cast of animal characters is dominated by 14 dogs and 9 horses. Far behind are reptiles and rodents with a combined total of 4. Cats are no more numerous than deer -- 2 each. Although at least as many U.S. households have cats

as dogs, felines do not seem to lend themselves to as wide a variety of dramatic roles, perhaps because they are not as trainable.

The prime-time animal menagerie numbers 2.4 percent of the human dramatic character population. That may seem like a small number, so let us put it in perspective.

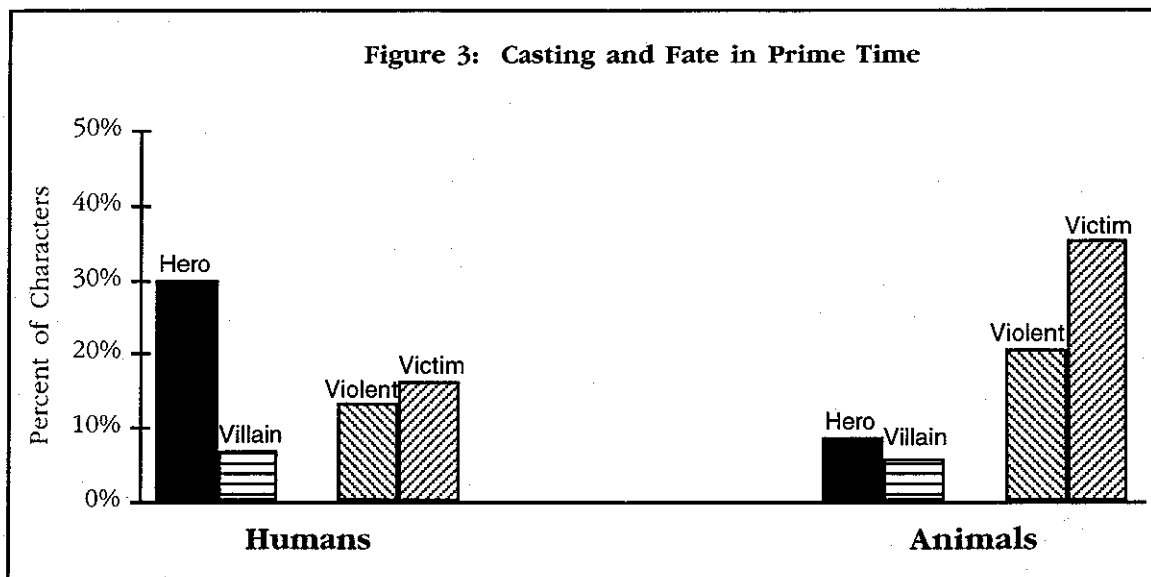
With the television set on in the average home more than 7 hours a day, viewers are exposed, throughout life, to a stream of images and messages. With an average 34 animal character exposures a week, a community absorbs more animal representations from television than from any other single source. Even though the average viewer will see more animals than old people, or poor people, or Latino and Asian Americans put together (Gerbner, 1993), television still underrepresents even the domestic, let alone the total animal world.

The *Journal of the American Veterinary Medical Association* reported in its October 1, 1992 issue that in 1991, 57.9 percent of American households owned a companion animal. The dog and cat populations alone were estimated to be over 117 million. The point is not that animal representation has a special priority but that a more frequent and diverse portrayal of animals as normal and everyday parts of life and nature might facilitate a more balanced representation.

That point becomes even more relevant when we observe the narrow and starkly stereotyped range of animal casting and fate. While 30.0 percent of prime-time humans play clearly good ("hero") roles, only 8.8 percent of prime-time animals do. However, "villain" roles number 6.7 percent of human and 5.9 percent of animal characters, nearly the same percentage.

These proportions make the relative balance of fate a telling role difference between animals and humans. That balance is the relative ratio of good vs. ill fate (see Table 8). The number of bad characters for every 10 good characters among humans is 2, meaning that for every 10 heroes there are 2 villains. However, for every 10 good animals there are 7 bad animals, more than 3 times the human "badness" ratio. The "menacing" animals thus appear to justify their own victimization.

That, in fact, is what happens. The percent of animals committing and suffering violence in prime-time is nearly double that of humans (Figure 3, next page). The balance between committing and suffering violence correspondingly differs. The relative



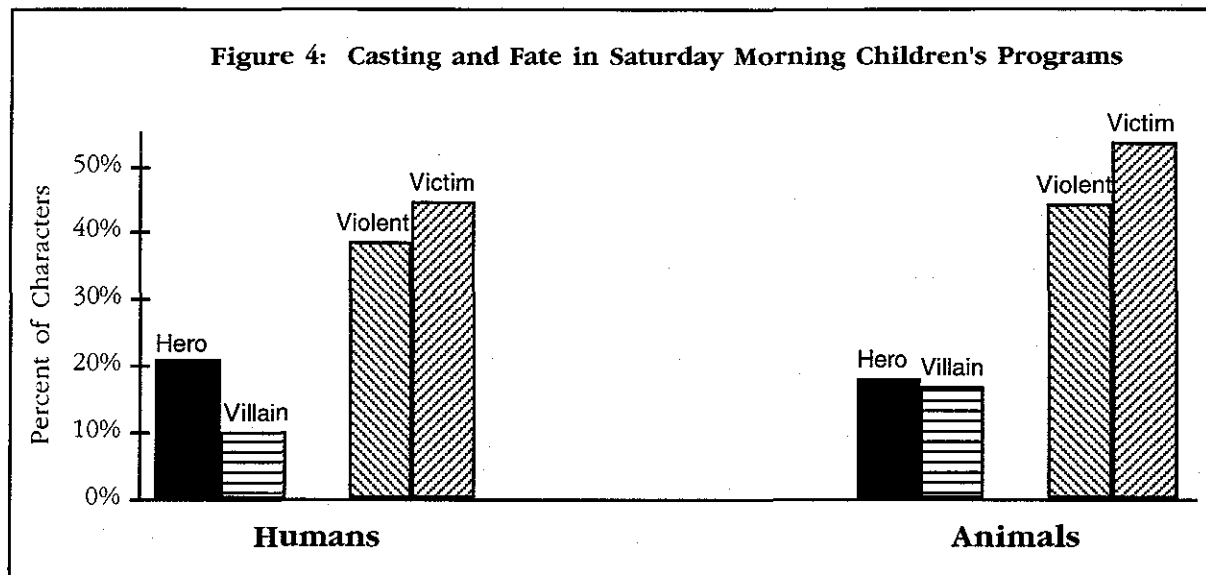
balance or "victimization ratio" among humans is 12 victims for every 10 perpetrators of violence. Among animals the ratio is 17 victims for every 10 perpetrators of violence.

Animal roles in Saturday morning children's programs

The Saturday morning children's programs animal character population numbers 82.4 percent of the human population in the same programs. About three-quarters are talking-walking "humanized" animals.

Both acting "bad" and violence are rampant in Saturday morning children's programs. Animals bear the brunt of the burden (Table 9). While the proportion of animal heroes is comparable to that of humans, animals' share of villains is nearly twice as high. The hero/villain ratios differ accordingly: 5 human villains for every 10 human heroes, but 9 animal villains for every 10 animal heroes. As in prime-time, animals are set up for easy victimization.

Figure 4 (next page) illustrates the differences in casting and fate. The role and risk ratios tell the story of both relative "badness" and victimization. The ratio of prime-time



"good" vs "bad" characters is 10/2 for humans and 10/7 for animals. The comparable ratios for Saturday morning children's programs is 10/7 for humans and 10/9 for animals.

Script analysis

A search of relevant scripts of prime-time network programs aired from 1989 through 1993 yielded 32 scripts that contained representations of animals. They presented 23 different types of animals. Dogs led with 12 portrayals, followed by 9 fish (guppies or goldfish), horses, rodents and fox/mink (3 each), and 2 frogs. All others, ranging from ants to zebras, had 1 character each.

The scripts are a mixture of comedies and serious drama. Both genres contain realistic and comic situations, as well as implausible story lines such as the attempted murder of a rabbit with atomic weaponry in *Married...with Children* ("Wabbit Season"), or the attempted murder of an animal shelter operator and the subsequent freeing of the shelter's animals at gunpoint in *LA Law* ("Wine Knot").

Animals are presented as nuisances or bothersome 25 times in the 32 scripts. A feeling for the dramatic uses of animals can be gleaned from an episode of *Hooperman*, "Dog Day Afternoon, Morning, and Night." Hooperman's doberman pincher gnaws the purse of Hooperman's girlfriend, perhaps out of envy of the woman's relationship with her

master or perhaps out of jealousy. The purse is almost destroyed and the girlfriend's distress creates friction in the relationship.

Hostile animal-human interactions are shown 20 times, and threats to human life 15 times. The wearing of furs is defended as necessary or pleasant on 7 occasions. In 4 scripts the opinion is expressed that animals have no use apart from serving human needs. Animal killing as a time-honored custom, ritual, or just fun is defended in 5 scripts.

Despite all the friction and hostility, close, friendly and supportive human-animal interaction is depicted 72 times in the 32 scripts. Animal sadness or pain is expressed on 13 occasions. Characters (usually parents) urge responsible treatment of animals in 6 scripts. Disapproval of killing or cruelty to animals occurs on 19 occasions. This ranges from comments objecting to animal experimentation to opposition to the wearing of fur.

Animal rights activities are depicted as violent most of the time they are shown. Violence against animal rights activists is shown only once, and that is in self-defense. Characters express disapproval of animal rights activities 21 times and of animal rights activists 14 times. Animal rights activities are approved on 11 occasions, but positive depictions of animal rights activists as calm, rational and non-violent can be found in only 3 scripts. In general, the disapproval of animal rights activism is at least twice as frequent as its approval.

PRINT MEDIA

The New York Times Index (NYTI) served as an indicator of news coverage, and the *Reader's Guide to Periodicals* (RG) as an indicator of popular magazine attention during the 33-year period, 1960 through 1992. The purpose of the analysis was to examine the editorial policies that drive the amount and type of attention and shape the context in which animals are presented to the reading public.

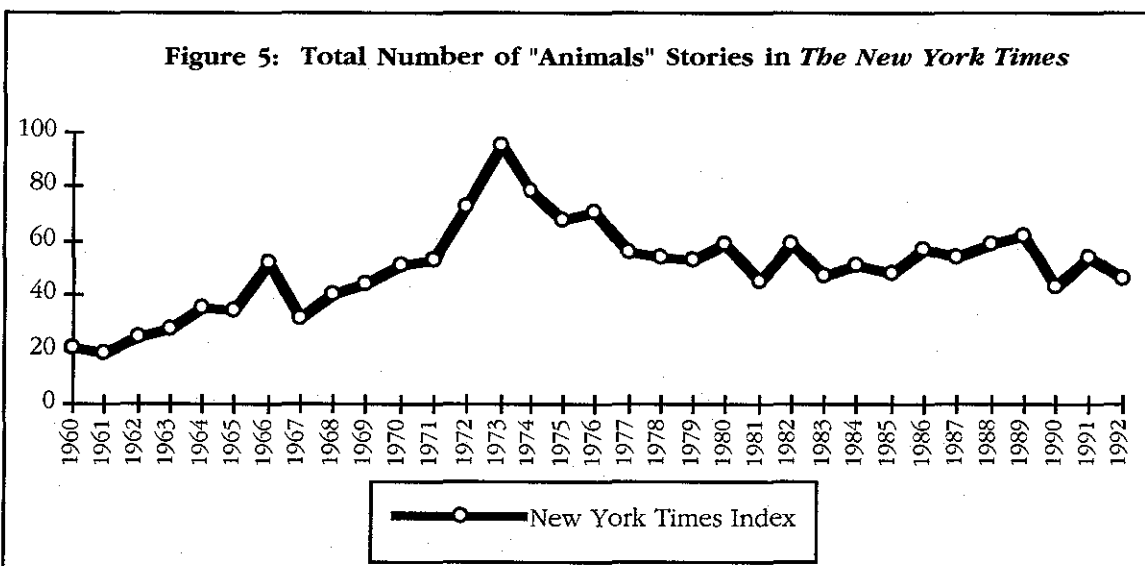
The NYTI provides brief summaries of all news, editorial, feature and other items appearing in *The New York Times*. The *Reader's Guide* does the same for the some 100 to 200 popular periodicals indexed during the period studied. Every item indexed in the NYTI and the RG under the main title "Animals" was recorded and classified for each of the 33 years.

We shall first review the overall trends and highlights of *The New York Times* coverage. Then we present a thematic cross-section for the entire period, concentrating on the trends and interactions in such composite categories as activism, policy and legislation, treatment and welfare of animals, etc. Comparable findings will be presented for popular magazines on the basis of the *Reader's Guide* listings of periodical articles.

Animal news in *The New York Times*

The NYTI listed 1,660 "Animals" items for the period studied. We grouped them into 6 main categories of Activism, Policy/Legislation, Treatment, Welfare, Science, and Media/Education (Table 10).

Figure 5 (below) shows the overall distribution of *The New York Times* coverage for the entire period. There are two clear peaks and a third slight rise in news attention. The first peak came about 1966. Rising coverage of animal rights activism² and



animal treatment issues is followed by policy discussions culminating in legislative activity. News items include reports of Federal and State legislation requiring the licensing of

² "Animal rights activism" is taken here to mean animal welfare groups such as the American Society for the Prevention of Cruelty to Animals and The Humane Society of the United States as well as explicitly animal rights organizations such as The Ark Trust, Inc., and People for the Ethical Treatment of Animals. Only in the late 1970s and 1980s did the NYTI recognize a formal distinction between "animal welfare" groups and "animal rights" groups.

dealers who provide animals for medical research, curbing thefts of pets, authorizing wildlife conservation programs, revising FDA procedures for the approval of new drugs tested on animals, denying sites to sports events where animals fight animals or humans, and regulations to govern the slaughter of animals used for food.

Prosecution for violations of the Endangered Species Act of 1969 and international negotiations for its more effective enforcement boosts the coverage to its highest level in 1973. "Animal rights" is first mentioned in 1973 and replaces "Animal Welfare" in 1984. Celebrity activism becomes more visible in the 1970s. The U.S. and U.S.S.R. propose 22 joint projects to control trade endangering certain species of wildlife. Eighty countries attending an international conference on endangered species in Washington, D.C. sign a treaty prohibiting commercial trade of 375 species of wild animals in danger of extinction. Editorials laud the accomplishments of the conference and claim that the prosecution of dealers involved in illegal fur and pelt trading played a major role in its success.

Press attention declines and then levels off in the late 1970s. With policy and legislative activity at a low ebb during the Reagan presidency, activism gains relative prominence and boosts the overall level of coverage.

However, much press coverage focuses on the rise of the Animal Liberation Movement, conflicts among different factions of animal rights advocates, and the academic and military opposition to animal rights. Violence by animal rights advocates, including bombing and a murder charge, draw considerable attention.

After 1990, attention shifts to science issues. Coverage of activism declines and the policy issues of the new conservative era, including attempts to roll back the gains of previous decades, take on greater prominence.

The major animal issues in the news

A thematic cross section for the entire period reveals trends and interactions among the major issues that drive news about animals. All NYTI items were classified into the following six major issue-categories:

ACTIVISM. Including coverage of the animal rights, animal welfare, and animal liberation movements, organizational activity, conflicts, reactions to legislation, opposition

to experimentation, the fur trade, and exploiting animals for food, fashion, and entertainment.

POLICY, LEGISLATION, LAW ENFORCEMENT. Including trials, regulations, policy deliberations and opinions on policy

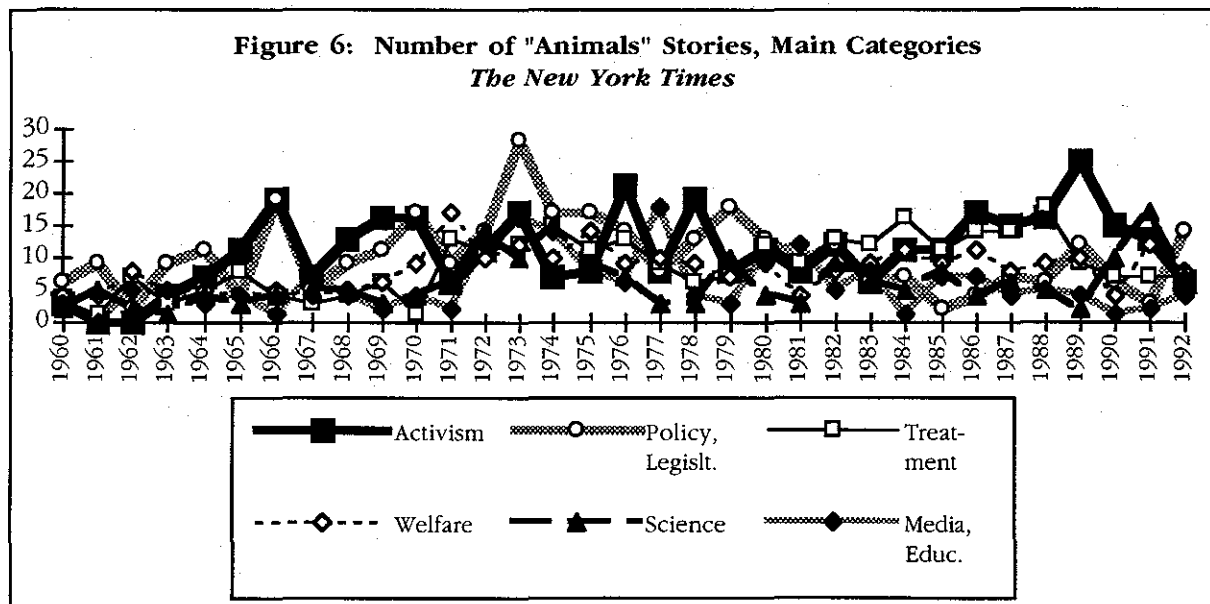
TREATMENT OF ANIMALS. Including services and their costs, training, breeding, health, rituals, interaction with humans.

ANIMAL WELFARE. Including extinction, preservation, disasters, sanctuaries, shelters, hunting, crimes against animals

SCIENCE. Including discoveries, study of animal behavior, medicine, research.

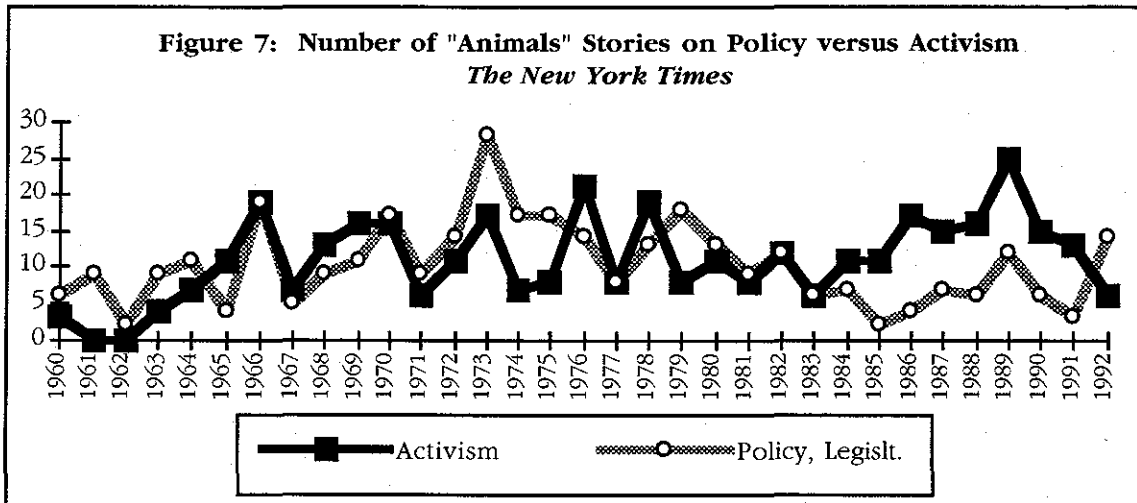
MEDIA, EDUCATION. Including discussion of presentation of animals in media, arts, entertainment, education.

The percent of stories in these major categories of attention over the entire period are summarized in Table 11 and traced in Figure 6 (below). While most of the trend lines criss-cross and obscure each other, Figure 6 shows that news of activism and



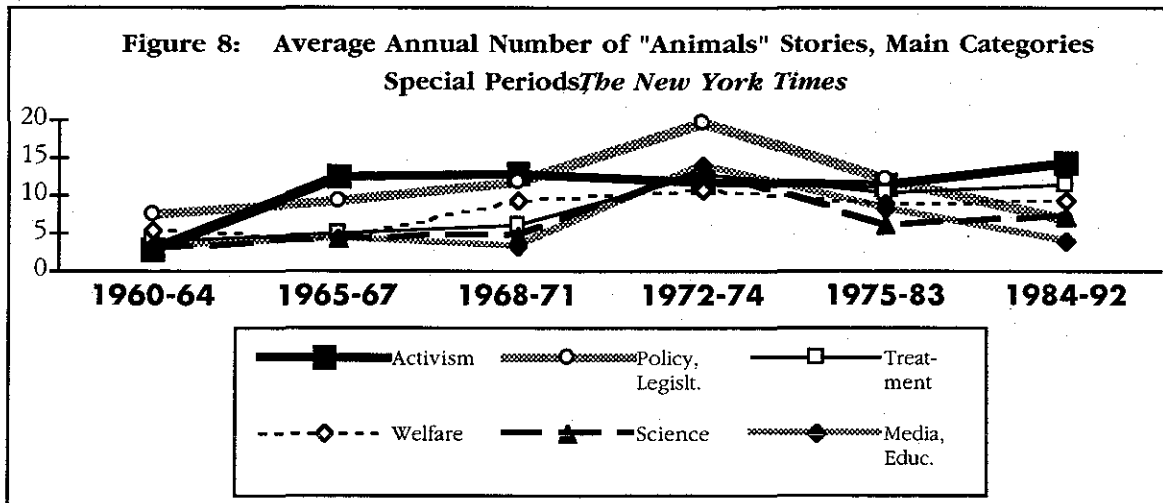
policy/legislation/law enforcement led the coverage in about 9 years each, news of treatment of animals in 4 years, and animal welfare, science and media/education each in about 2 years. The two leading categories, activism and policy/legislation together accounted for nearly half (43 percent) of all stories.

Figure 7 (below) examines the interaction of these two main categories of news attention. It shows that legislative and other policy considerations dominate the news in the



early 1960s. A sharp rise in news of activism leads the way to the 1966 peak period. Similar spurts drive policy/legislative coverage to its highest peaks in 1973 and 1979. Stress on discord among activists, litigation, violence and criminal prosecution dominate the coverage of rising activism at least until the Earth Summit in Rio de Janeiro in 1992.

Figure 8 (below) returns to trends in all 6 main categories by longer time periods.

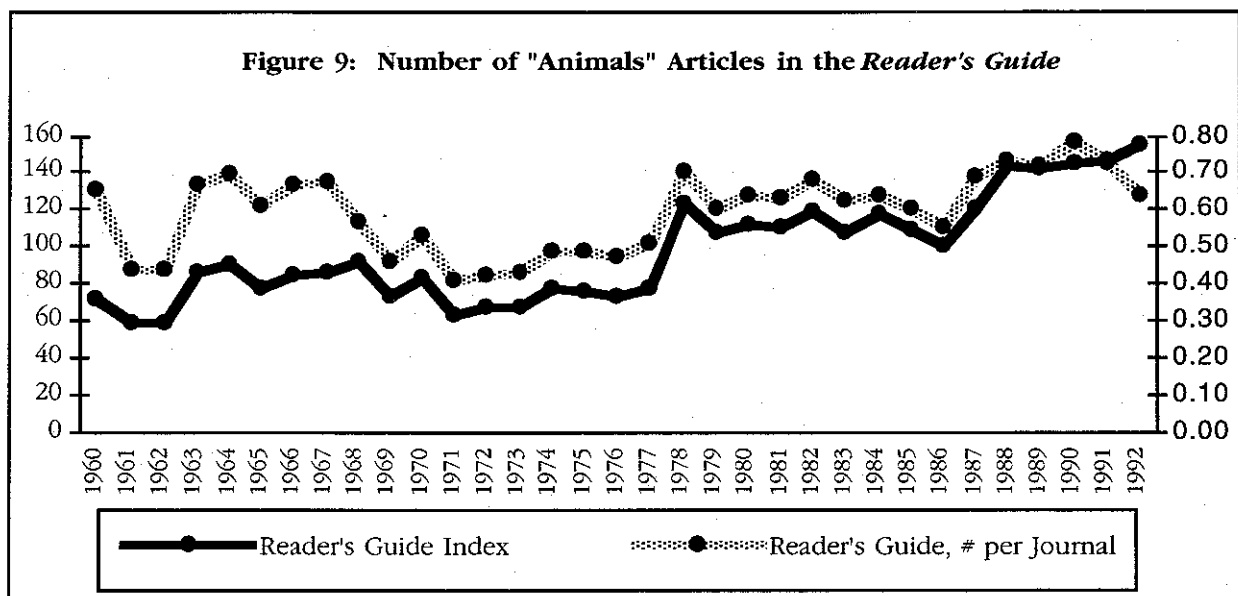


It shows that, over time, news of activism stimulates policy/legislative and other types of attention, and when policy stories are frequent, news of animal welfare, treatment, science, and media also tend to rise and converge.

Animal issues in popular magazines

Periodical articles take more time to prepare, have a more lasting role to play, and are more narrowly targeted at specific interests and groups of readers.

The trends and dynamics of attention indexed in the *Reader's Guide* reflect these characteristics. Table 12 presents the annual numbers of the total of 3,220 titles indexed, and shows how the number of periodicals included changed over the years. Figure 9 (below) charts these trends. It shows that, although the total number of articles indexed



increased over time, as did the number of periodicals indexed, the more reliable per-journal figures show little overall increase.

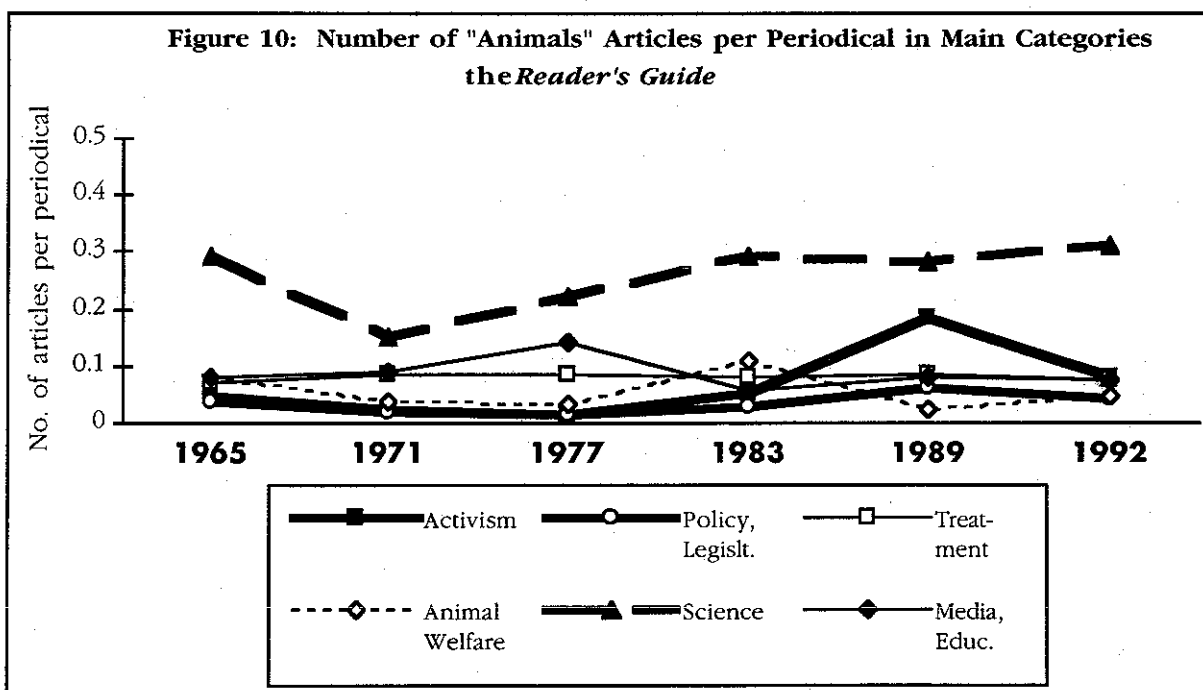
The major focus of animal-related articles in periodical publications is on scientific discoveries and observations of animal biology and behavior. Typical articles published during the relatively high plateau of attention in the mid-1960s include titles such as "Genotype and Sex Drive in Intact and in Castrated Male Mice;" "Lamb Experiments May Help Save Human Babies," "Medical Progress Depends on Animal Research;" "How to

Catch a Giraffe;" "Heart Disease Common in Dogs but Not Cats;" "Opossum as a Player: Feigning Death."

Attention declines in the 1970s. Typical magazine titles included "Language in Chimpanzees?;" "Carnivorous Tendencies Among Primates;" "Animal Trainer Who is Big on Love;" and "Ham Actors in Furs and Feathers."

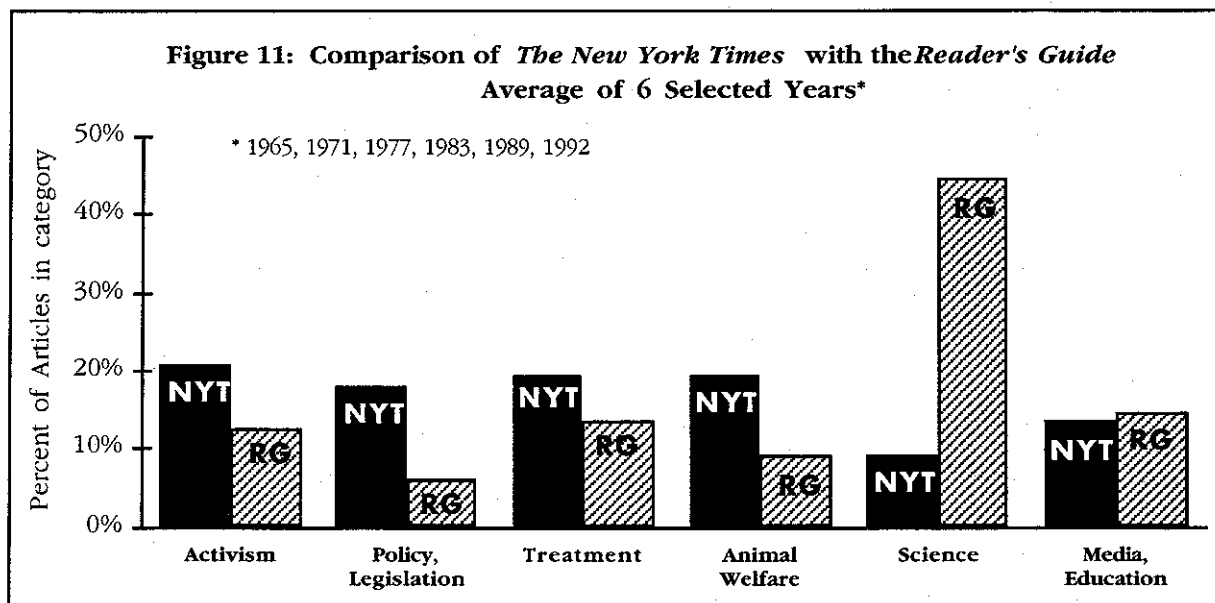
Animal rights and legislative activism, along with rising interest in animal welfare and scientific controversies, begin to be reflected in magazines in the late 1970s. In 1988, the *Reader's Guide* introduces a new sub-category, "ANIMAL RIGHTS MOVEMENT". Typical titles of the period include "Academy Explores Use of Laboratory Animals;" "Death of a Seal and the Price of Research;" "New Animal Regulations Cause Scientists Pain and Distress;" "Animals in Research: a Conflict in Caring;" "Rodent Cancer Tests: Worth the Expense?," as well as the usual run of studies and stories on "Symbolic Communication Between Two Chimpanzees;" "Effects of Home Environment on Withholding Behavior and Conditioning in Infant and Neo-Natal Rats.;" and "Apes Kiss and Make Up."

Six years were selected to show trends in news and magazine articles in the same main categories. These are presented in Table 13 and charted in Figure 10 (below).



It is clear that science is the main focus of attention in each time period. Media celebrities, education and treatment issues rise in the mid-1970s, animal welfare in the early 1980s, and, after that, features on activism contribute to the general high plateau of the 1980s.

Table 14 and Figure 11 (below) compare news stories and magazine articles for the six time periods. It can be seen that magazines publish the highest number of science



stories and have a slight edge in paying attention to media and education articles, as, for example, in "Mary Poppins and Friend Monkey" and "Birds Do It, Bees Do It, Even Pedigrees Do It: Everything You Have Always Wanted to Know About Reproduction in Pets. "

Although periodicals feature a broader set of issues in more specialized ways, the dynamics of magazine attention are similar to those of the news. Both media rank activism and policy issues among the top three. Animal advocates contribute a major variable to the media mix, even in science, as suggested by titles such as "Animal Research: Ten Years Under Siege."

CONCLUSIONS

There is no doubt that the persistence and visibility of the animal rights movement has shifted the political, social and scientific agendas, as well as some media priorities.

To sum up, we found that about 6 percent of prime-time and nearly 60 percent of Saturday morning children's programs present animal themes and characters. Four out of the five prime-time and more than half of the Saturday morning programs that contain animal themes also portray violence committed by or against animals.

Wild animals suffer ill treatment in four times as many scenes as in scenes in which they receive good treatment. Animals are three times as likely as humans to be portrayed as villains rather than heroes. Even with the high rate of homicides in prime-time, animals are twice as likely to be hurt or killed as humans.

The viewer of Saturday morning children's programs sees two-and-a-half times as many scenes of animals treated badly as animals treated well. Non-domestic settings portraying wild animals present 12 scenes of ill treatment for every one scene of good treatment. Both animals and humans are more likely to act "bad" and violent than in prime-time, but animals' share of villains is much higher, as is their share of victims of violence.

The script analysis reveals that while the majority of animal incidents and characterizations could be considered as positive, animal rights activities are frequently portrayed as violent and are disapproved of much more often than approved.

The analysis of print media shows that legislative and other policy considerations and animal rights activities dominate the news. There is frequent emphasis on discord among activists, litigation, violence and criminal prosecution. Popular magazines publish more articles on scientific discoveries and animal biology and behavior, but animal rights and legislative activism begin to be reflected in magazines in the late 1970s. Over time, activism stimulates policy/legislative and other types of print media attention. The anti-fur campaign may have been the single most visible reflection of animal rights activity in print in the 1970s and '80s.

Any analysis of these representations inevitably confronts the problem of language. The terms we use are tainted by the history of their uses. "Human," with its connotation of humane, is often an antonym of "animal," with its connotation of beastly. A thriving industry of paraphernalia and cleansers helps us, as a Clorox ad instructs: "How to keep your pet from living like an animal."

Calling someone "an animal" is an insult. It conjures up images of uncontrolled savagery, despite the fact that only the human animal is capable of deliberate genocide. No other species plans and executes systematic slaughter of millions of its own kind simply for belonging to an abstract category of "enemy" or to a particular race, religion, or ethnic group.

A basic conflict exists between a definition of animals as mere instrumentalities of human wants and needs vs. a definition which sees animals as major players in an intricate ecosystem with many parts of inherent worth. The instrumental definition is buttressed by the projection onto animals, and especially of wild animals, the most representative -- and lethal -- characteristics of the human animal.

The language, imagery, and definitions we use have significant social, economic, legal, psychological, scientific, medical, and ethical implications. Our choices also define and test our own humanity, and perhaps even the long-term viability of our own species.

Agriculture and animal husbandry have changed our relationship to nature. Industrialization and urbanization transformed our story-telling. They ritualized and rationalized new systems of domination. Global agribusiness and the military-industrial-scientific-medical establishments are able to lobby for and subsidize media projections of their interests. The animal rights community has limited resources with which to overcome formidable obstacles in order to achieve a more balanced perspective. This first systematic study of animal issues in the media is part of the attempt to assess the problem and to define the challenge facing animal advocates.

The challenge is systemic, rather than a matter of isolated policies that can be easily altered. Systems change more slowly and require constant monitoring. The value of this benchmark study will be enhanced if periodically repeated. An annual "Animal Issues Index" can track changes in representation (if any) and guide further activity.

Priority should be given to achieving a more frequent and balanced representation of animals, and particularly wild animals, in prime-time and, even more urgently, in Saturday morning children's programs. The violence-saturated portrayals are not only dangerous to animals but they are also misleading and detrimental to humane attitudes in general. Television shapes as well as reflects public attitudes about

animals. For many nonhumans perhaps the future's best -- or only -- hope is a generation sensitized and enlightened by exposure to more diverse and positive images of animals in the mass media.

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APPENDIX

TABLE 1: PROGRAMS ANALYZED; 1972-73 THROUGH 1992-93 SEASONS
AND THE FALL OF THE 1993-94 SEASON

	Prime time	Sat. a.m.	Totals
1972-73 - 1992-93			
ABC	458	256	714
CBS	491	402	893
NBC	462	290	752
FOX	67	26	93
Total	1,478	974	2,452
Fall 1993-94 season			
ABC	20	6	26
CBS	16	16	32
NBC	21	3	24
FOX	27	13	40
Total	84	38	122

TABLE 2: LIST OF ANIMALS, 1993-94 SEASON

	PRIME TIME	SATURDAY MORNING	TOTAL
Canines: Dog	14	27	41
Wolf		6	6
Felines: Cat	2	11	13
Lion	-	2	2
Tiger	-	2	2
Horse	9	2	11
Cow	-	6	6
Lamb	-	1	1
Pig, hog	-	7	7
Sheep	-	4	4
Antelope	-	1	1
Deer	2	-	2
Hedgehog	-	2	2
Ram	-	1	1
Chicken	-	6	6
Duck	-	13	13
Rooster	-	2	2
Other Birds	-	5	5
"Fish"	-	8	8
Other water animals	3	5	8
Reptiles	1	7	8
Rodents	3	4	7
Primates (monkey, gorilla)	-	3	3
Other identifiable real animals			
Bat	-	2	2
Elephant	-	1	1
Rabbit	-	1	1
Rhino	-	2	2
Skunk	-	2	2
Tazmanian Devil	-	2	2
Turtle	-	8	8
Wallabee	-	1	1
Weasel	-	1	1
Fantasy animals, creatures		47	47
Totals	34	192	226

TABLE 3: ANIMAL/NATURE THEMES

	PRIME TIME Percent of programs with animal/nature theme	SATURDAY MORNING Percent of programs with animal/nature theme
1973-77	12.1	45.5
1978-82	14.4	50.2
1983-87	9.2	63.6
1988-92	10.3	53.1
20-year total	11.5	53.0
Fall 1993-94 season (animal theme only)	6.0	57.9

TABLE 4: ANIMAL THEMES AND VIOLENCE, 1993-94 SEASON

	Prime Time	Saturday morning
Total No.	84	38
Number of programs with animal theme	5	22
Violence vs. animals	2	12
Violence by animals	3	12
Any involvement	4	14

TABLE 5: ANIMAL AND VIOLENCE THEME CORRELATIONS

"Animals and nature" 1972-73 - 1992-93 seasons

	Prime Time	Saturday Morning
Violence	.0642**	.1444**

"Animals" Fall 1993-94 season

	Prime Time	Saturday Morning
Violence vs. animals	.5253**	.5352**
Violence by animals	.4105**	.3119

* - Signif. LE .05

** - Signif. LE .01 (2-tailed)

TABLE 6: TREATMENT OF ANIMALS IN ANIMAL SCENES
PRIME TIME, 1993-94 SEASON

	DOGS & CATS	OTHER DOMEST. ANIMALS	WILD ANIMALS	TOTAL
Tot. no. scenes	25	39	9	73
	%	%	%	%
Treated well	40.0	7.7	11.1	19.2
Treated badly	12.0	7.7	44.4	13.7
Ratios	10/3	10/10	10/40	10/7

TABLE 7: TREATMENT OF ANIMALS IN ANIMAL SCENES
SATURDAY MORNING CHILDREN'S PROGRAMS, 1993-94 SEASON

	DOGS & CATS	OTHER DOMEST. ANIMALS	WILD ANIMALS.	TOTAL
Tot. no. scenes	13	16	74	103
	%	%	%	%
Treated well	23.1	31.3	6.8	12.6
Treated badly	7.7	12.5	39.2	31.1
Ratios	10/3	10/4	10/58	10/25
DOMESTIC				
CONTEXT No.	11	10	25	46
	%	%	%	%
Treated well	27.3	40.0	12.0	21.7
Treated badly	9.1	10.0	20.0	15.2
Ratios	10/3	10/3	10/17	10/7
OTHER				
CONTEXT No.	2	6	49	57
		%	%	%
Treated well	-	16.7	4.1	5.3
Treated badly	-	16.7	49.0	43.9
Ratios	-	10/10	10/120	10/83

TABLE 8: CASTING AND FATE IN PRIME TIME, 1993-94 SEASON

	HUMANS	ANIMALS
TOTAL No.	1,412	34
	%	%
Heroes	30.0	8.8
Villains	6.7	5.9
Ratios	10/2	10/7
	%	%
Violent	13.2	20.6
Victim	16.3	35.3
Ratios	10/12	10/17

TABLE 9: CASTING AND FATE IN SATURDAY MORNING CHILDREN'S PROGRAMS, 1993-94 SEASON

	HUMANS	ANIMALS
TOTAL No.	233	192
Percent of cartoon animals that are "humanized"		% 73.4
	%	%
Heroes	21.0	18.2
Villains	9.9	16.7
Ratios	10/5	10/9
	%	%
Violent	38.6	44.3
Victim	44.6	53.6
Ratios	10/12	10/12

**Table 10: New York Times Index
Stories on Animal Related Issues**

Category	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976
ACTIVISM	3	0	0	4	7	11	19	7	13	16	16	6	11	17	7	8	21
Opinions on animal exp.	2	0	0	1	1	4	7	1	0	4	0	0	0	0	0	1	5
Reactions to laws	1	0	0	0	1	1	3	3	0	1	6	0	3	2	1	2	1
Opinions, Animals rights, activists	0	0	0	0	0	4	2	0	2	0	1	1	2	2	1	0	2
Animal rights	0	0	0	3	4	0	5	1	2	1	2	3	1	6	1	5	10
Anti-fur activism	0	0	0	0	0	0	0	1	9	10	5	1	3	4	0	0	0
Activists vs Research/Corporations	0	0	0	0	0	1	1	1	0	0	1	1	1	3	2	0	2
Celebrities and animal rights	0	0	0	0	1	1	1	0	0	0	1	0	1	0	2	0	1
POLICY, LEGISLATION	6	9	2	9	11	4	19	5	9	11	17	9	14	28	17	17	14
International policy, preservation	1	3	2	4	3	1	2	1	3	4	1	0	2	12	2	3	3
Opinions, preservation, policy	0	1	0	3	5	3	3	1	4	0	1	2	2	5	5	3	2
Federal legislation	0	0	0	0	2	0	9	0	1	2	6	2	4	2	3	1	1
Animal issues on court	3	0	0	0	1	0	1	1	0	0	2	2	0	3	1	2	0
US policy, preservation	1	4	0	2	0	0	4	2	0	2	6	3	5	2	4	0	4
Regulations for domestic animals	1	1	0	0	0	0	0	0	1	3	1	0	1	4	2	8	4
TREATMENT OF ANIMALS	3	1	7	3	5	8	4	3	4	6	1	13	11	12	15	11	13
Treatment, general public	0	0	1	0	0	1	1	0	1	0	0	2	1	1	4	0	1
Services for pets	0	0	1	0	1	2	1	0	2	1	1	0	5	3	5	3	1
Religious rituals w/ animals	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0
Animal insurance, centers etc.	1	1	4	0	0	1	0	1	1	0	0	0	2	1	1	0	2
Training/breeding	0	0	0	0	0	1	0	0	0	1	0	1	0	0	0	2	0
Issues of animal health	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	1
Animal-Human interaction	2	0	1	1	2	2	1	0	0	2	0	3	3	4	1	2	3
Hunting	0	0	0	0	1	1	1	1	0	1	0	4	0	1	1	0	1
Treatment of domestic animals	0	0	0	1	1	0	0	0	0	1	0	3	0	2	0	2	4
ANIMAL WELFARE	4	4	8	5	5	4	5	4	5	6	9	17	10	12	10	14	9
Extinction, wildlife	0	0	2	1	3	0	1	2	3	3	4	6	4	1	2	2	3
Natural disasters	0	1	1	1	1	1	0	0	1	2	0	2	0	0	0	0	1
Man-made disasters	1	0	0	2	1	0	4	2	0	1	2	4	2	2	1	1	1
Criminal activity	0	0	0	0	0	1	0	0	0	0	0	2	2	5	1	2	0
Wildlife sanctuaries, shelters, zoos	3	3	5	1	0	2	0	0	1	0	3	3	2	4	6	9	4
SCIENCE	2	5	2	1	4	3	4	5	5	3	4	6	14	10	15	9	7
Medical treatment	0	1	0	0	0	0	1	0	0	0	0	0	1	1	3	1	0
Animal behavior	2	1	2	0	2	2	1	4	3	1	4	3	4	2	4	5	2
Scientific discoveries	0	2	0	0	1	1	2	1	1	2	0	3	3	3	5	3	4
Research on diseases	0	1	0	1	1	0	0	0	1	0	0	0	6	4	3	0	1
MEDIA, EDUCATION	3	0	5	5	3	4	1	7	4	2	4	2	12	16	14	8	6
Education on animals	0	0	0	0	2	0	1	0	1	0	0	1	2	5	1	1	2
Animals in Media, Arts	3	0	5	5	1	4	0	7	3	2	4	1	10	11	13	7	4
Total of year	21	19	24	27	35	34	52	31	40	44	51	53	72	95	78	67	70

(Table 10 continued from previous page)

Category	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	Total	Percent
ACTIVISM	8	19	8	11	8	12	6	11	11	17	15	16	25	15	13	6	367	22.1 %
Opinions on animal exp.	0	2	1	1	0	2	4	2	3	5	7	5	7	2	1	0	68	
Reactions to laws	2	11	2	0	1	4	0	1	1	3	1	3	0	3	1	3	61	
Opinions, Animals rights, activists	0	0	0	2	3	2	0	1	0	0	0	0	4	0	0	0	29	
Animal rights	5	1	0	3	3	2	2	7	4	8	5	7	13	10	9	3	126	
Anti-fur activism	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	35	
Activists vs Research/Corporation:	0	4	4	3	1	2	0	0	3	0	1	0	1	0	0	0	32	
Celebrities and animal rights	1	1	1	2	0	0	0	0	0	0	1	0	0	0	2	0	16	
POLICY, LEGISLATION	8	13	18	13	9	12	6	7	2	4	7	6	12	6	3	14	341	20.5 %
International policy, preservation	2	1	8	2	1	2	0	0	0	0	2	1	1	1	0	3	71	
Opinions, preservation, policy	0	2	2	1	2	3	2	4	0	2	1	0	5	4	2	1	71	
Federal legislation	3	8	4	3	1	3	3	2	0	0	2	3	1	0	0	0	66	
Animal issues on court	0	1	1	3	2	0	0	0	1	0	0	2	4	1	1	5	37	
US policy, preservation	0	1	2	1	3	2	0	0	1	0	1	0	0	0	0	5	55	
Regulations for domestic animals	3	0	1	3	0	2	1	1	0	2	1	0	1	0	0	0	41	
TREATMENT OF ANIMALS	9	6	7	12	9	13	12	16	11	14	14	18	9	7	7	7	291	17.5 %
Treatment, general public	2	1	0	1	0	0	0	1	1	3	0	1	0	1	1	1	26	
Services for pets	4	3	0	2	4	1	5	7	3	6	4	8	4	0	0	1	78	
Religious rituals w/ animals	0	1	0	4	0	1	1	0	1	1	3	1	1	2	1	2	22	
Animal insurance, centers etc.	0	0	1	2	0	5	1	2	3	1	1	0	1	0	0	2	34	
Training/breeding	0	0	2	1	1	2	1	0	0	0	0	1	0	0	1	0	14	
Issues of animal health	1	0	0	0	0	1	1	1	0	1	1	1	0	0	0	0	12	
Animal-Human interaction	1	0	3	1	2	3	2	1	2	0	4	4	2	3	1	0	56	
Hunting	1	0	0	0	1	0	0	3	0	1	1	1	1	0	0	0	21	
Treatment of domestic animals	0	1	1	1	1	0	1	1	1	1	0	1	0	1	3	1	28	
ANIMAL WELFARE	10	9	7	9	4	8	9	11	9	11	8	9	10	4	12	8	269	16.2 %
Extinction, wildlife	3	4	1	3	1	3	6	3	2	2	5	2	0	3	3	1	79	
Natural disasters	1	0	0	0	0	0	1	0	1	2	0	1	1	0	0	1	19	
Man-made disasters	4	2	2	5	2	2	1	4	2	1	1	3	5	0	3	1	62	
Criminal activity	0	0	2	1	1	0	0	0	2	1	0	0	0	0	6	4	30	
Wildlife sanctuaries, shelters, zoos	2	3	2	0	0	3	1	4	2	5	2	3	4	1	0	1	79	
SCIENCE	3	3	10	4	3	9	6	5	8	4	6	5	2	10	17	7	201	12.1 %
Medical treatment	1	1	0	1	0	1	2	3	2	3	1	0	1	2	4	3	33	
Animal behavior	1	1	4	0	0	2	3	1	1	1	4	3	0	3	3	2	71	
Scientific discoveries	0	0	5	0	0	6	1	1	4	0	0	0	0	3	7	0	58	
Research on diseases	1	1	1	3	3	0	0	0	1	0	1	2	1	2	3	2	39	
MEDIA, EDUCATION	18	4	3	10	12	5	8	1	7	7	4	5	4	1	2	4	191	11.5 %
Education on animals	4	1	0	5	5	2	5	1	6	5	2	5	3	0	1	4	65	
Animals in Media, Arts	14	3	3	5	7	3	3	0	1	2	2	0	1	1	1	0	126	
Total of year	56	54	53	59	45	59	47	51	48	57	54	59	62	43	54	46	1660	100.0 %

TABLE 11: MAIN CATEGORIES, *THE NEW YORK TIMES*, 1960-1992
PERCENTS OF STORIES

	%
ACTIVISM	22.1
Including coverage of animal rights, welfare, liberation movements, organizational activity, conflicts, reactions to legislation, opposition to experimentation, the fur trade, and exploiting animals for food, fashion, and entertainment.	
POLICY, LEGISLATION, LAW ENFORCEMENT	20.5
Including legislation, law enforcement, trials, regulations, policy deliberations and opinions on policy	
TREATMENT OF ANIMALS	17.5
Including services and their costs, training, breeding, health, rituals, interaction with humans.	
ANIMAL WELFARE; THREATS TO-	16.2
Including extinction, preservation, disasters, sanctuaries, shelters, hunting, crimes against animals.	
SCIENCE	12.1
Including discoveries, study of animal behavior, medicine, research on diseases.	
MEDIA, EDUCATION	11.5
Including discussion of presentation of animals in media, arts, entertainment, education.	

TABLE 12: "ANIMALS" ARTICLE TITLES LISTED
IN THE *READER'S GUIDE* 1960-1992

	Number of articles	Number of periodicals	Number of Articles per periodical
1960	72	110	0.65
1961	58	132	0.44
1962	58	132	0.44
1963	86	129	0.67
1964	90	129	0.70
1965	77	126	0.61
1966	85	127	0.67
1967	86	128	0.67
1968	91	160	0.57
1969	73	160	0.46
1970	83	156	0.53
1971	63	154	0.41
1972	67	159	0.42
1973	67	156	0.43
1974	78	159	0.49
1975	76	156	0.49
1976	73	155	0.47
1977	78	153	0.51
1978	123	175	0.70
1979	108	179	0.60
1980	112	176	0.64
1981	110	174	0.63
1982	119	175	0.68
1983	108	174	0.62
1984	118	185	0.64
1985	109	181	0.60
1986	100	181	0.55
1987	120	175	0.69
1988	143	195	0.73
1989	142	197	0.72
1990	145	186	0.78
1991	147	202	0.73
1992	155	244	0.64
TOTAL	3,220	5,380	0.60

TABLE 13: "ANIMALS" ARTICLE TITLES LISTED
IN THE *READER'S GUIDE* FOR SELECTED YEARS
BY MAIN CATEGORIES

	1965	1971	1977	1983	1989	1992	TOTAL No.	% of TOTAL
Activism	6	4	2	9	36	20	77	12.4
Policy, Legisl.	5	3	2	5	12	10	37	5.9
Treatment	9	13	13	14	17	19	85	13.6
Animal Welfare	10	6	5	19	5	12	57	9.1
Science	37	23	34	51	56	76	277	44.5
Media, Educ.	10	14	22	10	16	18	90	14.4
TOTALS PER YR.	77	63	78	108	142	155	623	100%
STORIES PER PERIODICALS INDEXED	.61	.41	.51	.62	.72	.64	.59	

TABLE 14: COMPARISON OF *THE NEW YORK TIMES*
AND *READER'S GUIDE* COVERAGE

	<i>The New York Times</i>		<i>Reader's Guide</i>		Difference between last two columns
	33 yrs ave. %	6 selected years ave. %	6 selected years ave. %		
Activism	22.1	20.8	12.4	8.4 (NYT) *	
Policy, Legisl.	20.5	17.8	5.9	11.9 (NYT)	
Treatment	17.5	19.5	13.6	5.9 (NYT)	
Animal Welfare	16.2	19.5	9.1	10.4 (NYT)	
Science	12.1	9.1	44.5	35.4 (RG)	
Media, Education	11.5	13.4	14.4	1.0 (RG)	
	100%	100%	100%		

* NYT means *The New York Times* has higher average
RG means *Reader's Guide* has higher average