



UNDERSTANDING PREJUDICE AND DISCRIMINATION

Edited by Scott Plous
Wesleyan University



Boston Burr Ridge, IL Dubuque, IA Madison, WI New York
San Francisco St. Louis Bangkok Bogotá Caracas Kuala Lumpur
Lisbon London Madrid Mexico City Milan Montreal New Delhi
Santiago Seoul Singapore Sydney Taipei Toronto

McGraw-Hill Higher Education

A Division of The McGraw-Hill Companies

UNDERSTANDING PREJUDICE AND DISCRIMINATION

Published by McGraw-Hill, a business unit of The McGraw-Hill Companies, Inc., 1221 Avenue of the Americas, New York, NY 10020. Copyright © 2003 by The McGraw-Hill Companies, Inc. All rights reserved. No part of this publication may be reproduced or distributed in any form or by any means, or stored in a database or retrieval system, without the prior written consent of The McGraw-Hill Companies, Inc., including, but not limited to, in any network or other electronic storage or transmission, or broadcast for distance learning.

Some ancillaries, including electronic and print components, may not be available to customers outside the United States.

This book is printed on acid-free paper.

1 2 3 4 5 6 7 8 9 0 QPF/QPF 0 9 8 7 6 5 4 3 2

ISBN 0-07-255443-6

Vice president and editor-in-chief: *Thalia Dorwick*

Publisher: *Stephen D. Rutter*

Senior sponsoring editor: *Rebecca H. Hope*

Developmental editor: *Sienna Patch*

Senior marketing manager: *Chris Hall*

Project manager: *Christine Walker*

Production supervisor: *Enboge Chong*

Media technology producer: *Ginger Warner*

Interior designer: *Laurie Jean Entringer*

Cover designer: *Ryan Brown*

Cover art: Copyright © 2002, *Allison Plous*

Senior supplement producer: *David A. Welsh*

Compositor: *Carlisle Communications, Ltd.*

Typeface: *10/12 Book Antiqua*

Printer: *Quebecor World Fairfield, PA*

The credits section for this book begins on page 587 and is considered an extension of the copyright page.

Library of Congress Cataloging-in-Publication Data

Understanding prejudice and discrimination / [compiled and edited by] Scott Plous.—1st ed.
p. cm.

A compilation of readings from a broad range of scholarly disciplines, most edited, adapted, or revised for this anthology and several never published before.

The text is supported by a variety of instructional materials, including a web site offering interactive exercises and demonstrations, streaming video clips, and other resources.

Includes index.

ISBN 0-07-255443-6

1. Prejudices. 2. Racism. 3. Discrimination. 4. Stereotype (Psychology) 5.

Toleration—Study and teaching. I. Plous, Scott.

HM1091 .U53 2003
303.3'85—dc21

2002071946

www.mhhe.com

IS THERE SUCH A THING AS PREJUDICE TOWARD ANIMALS?

SCOTT PLOUS

Prejudice toward animals? The very notion seems odd. Prejudice is a term usually reserved for human relations, and it feels wrong on at least three counts to speak of prejudice against nonhuman animals (commonly referred to as “speciesism”). First, speciesism appears to fly in the face of the love many people have for animals.¹ Second, speciesism runs the risk of trivializing scourges such as racism and sexism. And third, speciesism suggests a demeaning equivalence between human targets of prejudice (e.g., people of color) and animals. Let us consider each point in turn.

On the first point, it is unquestionably true that many people love animals. In the United States alone, people live with half a billion companion animals, and when asked, roughly 90% report regarding their animals as family members (Gallup, 1997; Siegel, 1993). According to Jasper and Nelkin (1992), 10–15 million Americans belong to an animal welfare group, and one in five claims to have contributed money to an animal protection organization. One study even found that among families with companion animals, 38% of respondents indicated feeling closer to their dog than to any other family member (Barker & Barker, 1988).

As George Orwell put it in *Animal Farm*, however, some animals are “more equal” than others. Of the 10 billion or so farm animals raised annually in the United States, many are consigned to live the full measure of their lives in intensive confinement systems (Robbins, 2001). For example, at least 90% of pigs and egg-laying chickens in the United States live in small indoor cages or stalls (Mason & Singer, 1990; Fox, 1997). Likewise, millions of animals on “fur farms” are reared in cages and ultimately electrocuted or gassed (Scientific Committee, 2001; McKenna, 1998). In many cases, fur-bearing animals and farm animals are made to suffer or die for reasons no more important than trimming a coat with fur or topping a pizza with pepperoni.

If the core of prejudice and discrimination amounts to prejudging and treating others poorly based on their group membership, there is no question that certain types of animals qualify as targets of discrimination. Throughout history, millions of animals have been treated as though they experience little or no pain, as though they do not feel emotions, as though they have no family bonds, and as though they have no vested interest in living. To take but a few examples, animals have been injured and killed in bullfights, fox hunts, rodeos, and cockfights, all staged for human entertainment. If these practices do not fall within the ken of prejudice and discrimination, their exclusion is merely semantic.

¹ As used in this article, the term “animals” refers to nonhuman animals.

At the same time, speciesism is clearly not equivalent to racism and sexism. There are important differences between the subjugation of people and the subjugation of animals, and people are capable of suffering in many ways that animals are not. But why should this difference be seen as trivializing racism or sexism? We do not rank-order prejudices aimed at humans and say that the existence of one form of prejudice trivializes the others or demeans its victims.

With respect to speciesism, this reaction is an understandable result of historic attempts to portray human targets of prejudice as animal-like. African Americans have been depicted as apes, Jews as vermin, women as prey, homosexuals as beasts, fat people as cows and pigs. Yet the very act of "treating people like animals" would lose its meaning if animals were treated well. Just as racism, sexism, and other prejudices share a similar mindset, many of the psychological factors that underlie speciesism serve to reinforce and promote prejudice against humans. These factors include power, privilege, dominance, control, entitlement, and the need to reduce cognitive dissonance when committing harmful acts.

For example, dissonance-reducing statements now made about animal use are strikingly similar to the dissonance-reducing statements once made about human slavery. Animals are often described as benefiting from being used, as being content with their lot, as being insensitive to pain, unintelligent, unaware, or wanting to be used. Animal use is frequently described as natural, economically necessary, or inevitable. Religious scriptures are invoked to support various practices. And people whose livelihood depends on the use of animals often stress that they love animals, that their own economic interests prevent widespread cruelty, and that abolitionism amounts to fanaticism.

Indeed, the parallels between slavery and animal use extend well beyond dissonance reduction. For instance, American slaves were often auctioned, branded, had their ears cropped, and were bred "like other live stock" (Weld, 1839/1968, p. 183). Slaves were explicitly referred to as "stock" or "cattle," childbearing female slaves were called "breeders," children were referred to as the "increase," and slave overseers were called "drivers." Field hands were frequently forced into labor with whips, collars, yokes, fetters, and chains, and they were often fed a corn meal diet (food thought sufficient for animals of burden). House servants, in some ways the counterpart of modern-day companion animals, were fed corn meal along with assorted table scraps such as unwanted bones and fat.

Afro-American parents had as little control over the disposition of their children "as have domestic animals over the disposal of their young," and slaves were used as test subjects for all manner of surgical techniques and experimental treatments (Weld, 1839/1968, pp. 45, 56). In fact, the prospectus of one Southern medical college even boasted that: "Some advantages of a peculiar character are connected with this Institution, which it may be proper to point out. No place in the United States offers as great opportunities for the

acquisition of anatomical knowledge, subjects being obtained from among the colored population in sufficient number for every purpose, and proper dissections carried on without offending any individuals in the community" (Weld, 1839/1968, p. 169). Until 1821, the laws governing slaves and animals bore much in common; killing another person's slave and killing another person's draft animal were both considered misdemeanors.

In 1906, the line between outgroup biases toward humans and outgroup biases toward animals was blurred in a particularly dramatic way. That year, the New York Zoological Park (now the Bronx Zoo) set up a monkey exhibit that included a 23-year-old African Pigmy named Ota Benga. A sign on the cage read, "The African Pigmy, 'Ota Benga.' Age, 23 years. Height, 4 feet 11 inches. Weight, 103 pounds. Brought from the Kasai River, Congo Free State, South Central Africa, by Dr. Samuel P. Verner. Exhibited each afternoon during September" ("Man and monkey show," 1906). One of the most telling aspects of this episode is that the zoo director, William T. Hornaday, used many of the same dissonance-reduction strategies that are found in connection with the use of animals. According to Hornaday, Ota Benga "begged to accompany Mr. Verner to America, and even threatened to drown himself otherwise" (Hornaday, 1906, p. 302). Hornaday also told the *New York Times* that: "The little black man is really very comfortable . . . [and] seems happy" ("Man and monkey show," 1906, p. 2). The truth of these statements was subsequently belied when Ota Benga committed suicide (Bridges, 1974).

Several years later, the Ringling Brothers Circus created a similar display called "The Monkey Man." In this instance, a male African American was caged with a female chimpanzee who had been taught to wash clothes and hang them on a line (Bradna & Spence, 1952). And in 1980, the racism-speciesism line was blurred when two White hunters fatally shot a deaf Black man who was walking along some railroad tracks in California (Turner, 1980). According to the story, both hunters stated that they had "decided to shoot a black person" because they had "failed to bag a deer after a day-long hunting trip." In the words of these hunters, they were hunting "dark meat" and bagging "critters" (Ellena, 1980). After killing the deaf man, the hunters drove to a nearby town and shot at four other Black people.

The question these episodes raise is whether parallels between speciesism and other forms of prejudice are psychologically meaningful, or whether their resemblance is largely superficial. Is it significant that the word *mulatto*—often used in the Old South as a synonym for "half-breed"—shares its etymology with *mule*? Or that *race* emerged from terms for animal breeding? Does it mean anything that the word *husband* shares a common origin with animal *husbandry*, or that rape was originally classified as a property crime? Why is homosexuality grouped with zoophilia (bestiality) in the *International Classification of Diseases*? And even if prejudices "animalize" human outgroups, does that imply the existence of prejudice toward animals themselves?

The thesis of this article is that these parallels are far from coincidental. On the contrary, they tell us something fundamental about how prejudice

operates and how people balance their desire to be fair with their desire to maintain an inequitable status quo (regardless of whether the outgroup is human or another species). In the following sections, I turn to a discussion of several psychological factors that allow people to use animals without feeling that their actions are unfair or prejudiced.

Dissociation

A number of psychological factors serve to dissociate, or distance, consumptive practices from the infliction of pain or suffering. In his classic article "The Case for Certain Cruelties," Gwynn (1924, p. 913) argued that "it is healthy to keep our imaginations so disciplined that we can eat roast chicken without thinking of the fowl's death struggles." Although a dissociation between the use of animals and the infliction of pain may at times be intentional, it is more often the result of structural variables such as the language surrounding animal use, the physical appearance of animal products, the remoteness of animal industries, and the way people are socialized to think about animals (Serpell, 1986; Wood, 1971).

Language

Consider the following excerpt from a market report:

Harvest levels this past season were off markedly. This is partly a result of last summer's drought, but mostly a function of market price. While some areas reported near normal harvests, my colleagues estimate that many areas harvested only 10–25 percent of the harvest of last season. (Shroeder, 1989, p. 54)

Nothing in this passage indicates that the crop being harvested is, in fact, a crop of live animals—that the commodity is raw fur. Yet animals are commonly referred to as crops by hunters, trappers, and the fur industry (Baker, 1985; Swan, 1995, p. 75). In the words of one hunter, "Deer have to be harvested. . . . It's not a whole lot different than going into the field and harvesting apples every year. You cultivate animals for what their purpose is, the same as cultivating a crop" (quoted in Mitchell, 1979, pp. 25–26). Or, in the words of a former Canadian minister of mines and energy: "I see little difference between someone in Florida harvesting oranges and someone in north-east Newfoundland engaging in the seal hunt" (Johnston, 1979). One trapper writing on behalf of the National Trappers Association even argued that "There are more fur animals now than when I started. I have simply taken a yearly harvest leaving plenty of seed for the next year" (Hoyt, 1979, p. 3). In hunting and trapping, consumptive practices are dissociated from the infliction of pain by using euphemisms for killing such as "harvesting," "bagging," "thinning," "managing," and "controlling." Similarly, animals are described impersonally as "crops," "seed," "game," "trophies," "surpluses," and "renewable resources."

The American legal system is particularly explicit in describing animals as inanimate objects. Whereas children and mentally disabled adults have “guardians” and are technically considered “wards,” animals have “owners” and are legally considered “chattel” or “personal property” (McCarthy, 1982).² This difference is not attributable to legal necessity, for there are instances in which nonhuman entities have been granted legal standing. According to former U. S. Supreme Court Justice William O. Douglas, “A ship has a legal personality, a fiction found useful for maritime purposes [and] the ordinary corporation is a ‘person’ for purposes of the adjudicatory processes” (*Sierra Club versus Morton*, 1974, p. 1370). Animals are also treated as inanimate within the Dewey Decimal library classification system; books on naming animals do not fall under section 929.4 (“Personal Names”), but rather, under section 929.97 (“Forms of Insignia and Identification”), along with books on naming houses and books on naming ships (Comaromi, 1989).

Finally, dissociation is apparent in language relating to food consumption (Adams, 1990; Sahlins, 1976). In many cases, the use of animals is divorced from the infliction of pain by using different names for the consumed animal and the live animal. Cows are “beef,” calves are “veal,” pigs are “pork,” and so on. Even when the same word is used to indicate the consumed animal and live animal—as in chicken, turkey, shrimp, or lobster—the consumed animal is usually indicated by a singular noun without an article, whereas the live animal is represented by a plural noun or a singular noun with an article. People do not eat chickens; they eat *chicken*. The fact that plants are not generally given dual names suggests that such distinctions are more than useful conventions.

Although the dual naming of consumed and live animals did not originate specifically in order to foster dissociation (the etymology is more complicated than that), this duality serves to distance animal products from live animals. Moreover, in some cases language *is* deliberately manipulated in order to depersonalize animals. For example, the “4-H Plan for Prevention” distributed by the 4-H Club warns animal fair participants to “be aware of the terminology you use; don’t humanize the animals:

chicks, calves, lambs not babies
 farrow, hatch, foal, bear not giving birth
 process not kill or slaughter
 health products not drugs
 family farm not factory farm
 beak trimming not debeaking.”

Lederer (1992) has documented similar word substitutions in the biomedical literature dating as far back as the early 1900s, when the Council on the Defense of Medical Research asked medical journal editors to eliminate

² It is worth noting in this regard that the word *cattle* shares the same etymological root as *chattel*, and that the Latin word for money, *pecunia*, comes from *pecus*, which means cattle (Rifkin, 1992).

“expressions which are likely to be misunderstood.” The *Journal of Experimental Medicine* (JEM), for example, maintained in-house publication guidelines that suggested substituting *intoxicant* for *poison*, *fasting* for *starving*, and *hemorrhaging* for *bleeding*. JEM also explicitly counseled authors not to refer to animals by name or initials, and when large numbers of animals were involved, the journal often renumbered subjects to give the appearance that fewer animals were used (e.g., rabbit 10-2 instead of rabbit 102).

Appearance

Many Americans find it difficult to eat animal products if the consumed animal closely resembles the live animal. As a consequence, body parts that are associated with life or personality—such as the eyes, face, or brain—are rarely eaten, and most animals are marketed without their heads or feet. This need for dissociation was summarized quite well by novelist John Updike, who once remarked in an interview, “I’m somewhat shy about the brutal facts of being a carnivore. . . . I don’t like meat to look like animals. I prefer it in the form of sausages, hamburgers and meatloaf, far removed from the living thing” (Sheraton, 1982, p. C8).

The importance of this form of dissociation is widely recognized within the animal industries. For example, *Meat Trades Journal* (“Meat,” 1977, May 5, p. 12) warned that “to acquaint a customer with the knowledge that the lamb chops she has just purchased were part of the anatomy of one of those pretty little creatures we see gamboling in the fields at springtime is probably the surest way of turning her into a vegetarian.” Even more directly, the popular paperback *Raising a Calf for Beef* cautioned readers that:

There may be a moment of trauma the day the calf is sent away, but the packages of processed beef that are brought home are not easily associated with the animal. Many families buy another small calf just before the older calf is sent to the butcher. And many people refuse to give a name to any animal they intend later to butcher on the theory that the name gives it a personality. But if members of the family—especially children—still object to the idea of butchering an animal, it may be a good idea to explain that livestock which are raised for food are the same as vegetables in the garden. (Hobson, 1983, p. 63)

The importance of dissociation is equally evident in the clothing industry. For example, in an article entitled “How to Talk About Fur Farming,” a prominent trade publication for the fur industry advised:

When you are holding a mink for photographs or for TV, do not allow zoom-in-pictures or shots made very close to the head of our animals. This type of picture shows our animals to be cute, lovable, cuddly, and adorable to the uninitiated urban viewer. . . . [The] reason you can give to avoid the situation described above could be, that you are afraid that strangers and unusual commotion will disturb and upset your animals. (Althouse, 1985, p. 88)

Remoteness

The dissociation between using animals and inflicting pain or suffering is additionally reinforced by the physical remoteness of animal industries. Intensive farming operations, livestock auctions, slaughterhouses, animal laboratories, and fur farms are typically remote or inaccessible (Fox, 1997; Wood, 1971). Farm animals also receive far less media attention than do other types of animals, and virtually all of the popular magazines and educational television shows about animals focus on wildlife rather than farm animals or intensive farming (Singer, 2002; Steinhart, 1988).

Partly as a result of this remoteness, public awareness concerning animal products is often minimal. For example, when 143 college students were tested with the true-false items in Table 1, the most common score was 0 items correct out of 8, and less than one fourth of respondents answered more than 1 item correctly (Plous, 1993). Similarly, a national survey found that only 54% of respondents could answer correctly whether "veal comes from lamb" (Kellert & Berry, 1980). Many people are unsure whether foods such as veal come predominantly from male animals or female animals, and a large percentage of well-educated adults do not associate cow's milk with the animal's pregnancy (Schleifer, 1985).

Indeed, a survey in the 1990s found that one in three adults did not know that butter, cheese, and ice cream come from cows (Plous, 1993). In this survey,

TABLE 1 Survey on Knowledge About the Use of Animals for Food and Clothing

	% saying "True"	% saying "False"	% saying "Don't know"
Leather from alligators and snakes is usually made by skinning the animals alive.	2	18	80
The unwanted chicks of laying hens are often ground alive to make pet food.	6	7	87
Most goose down comes from geese that have been plucked alive.	15	6	79
To make "kid" gloves, young goats are sometimes boiled alive.	0	12	88
To harvest silk, live silkworms are typically boiled in their cocoons.	20	6	75
In the United States, pigs and cows usually die from having their throats slit with a knife.	49	8	43
It is common practice in the United States to castrate pigs, sheep, and cattle without anesthesia.	34	1	65
Animals used for food are not protected by the United States Animal Welfare Act.	20	8	73

Note: Figures indicate the percentage of respondents giving each answer (the percentages are rounded off and do not always add up to 100). The correct answer to all items is "True."

117 respondents were asked whether any of the following 13 items were commonly made with animal products: butter, margarine, crayons, phonograph records, photographic film, ice cream, shaving cream, chewing gum, cheese, wallpaper adhesive, cellophane, linoleum, and marshmallows. Respondents were also asked to identify the animal of origin for any items they thought contained animal products.

The correct answer is that all 13 items are commonly made with products that come from cows³ (and some items, such as cheese, are made from other animals as well). The highest score anyone achieved, however, was six correct items, and the mean number of correct answers was 2.8. Twenty-two percent of the respondents did not know where butter comes from, 22% did not know where cheese comes from, and 24% did not know where ice cream comes from (all told, 34% of the respondents failed to identify at least one dairy product). None of the respondents answered correctly when asked about photographic film, shaving cream, chewing gum, cellophane, and linoleum, and many expressed surprise that such a wide variety of household items are made with animal products.

Although the remoteness of animal industries is often a result of practical constraints rather than a deliberate strategy aimed at maintaining dissociation, there are some cases in which temporal and spatial distancing is intentionally used to insulate the public. For instance, in a policy statement issued by the Acting Director of the Bureau of Sport Fisheries and Wildlife (now the U.S. Fish and Wildlife Service), regional directors were instructed that:

Scheduling and zoning should be judiciously employed in hunting programs to buffer the non-hunting public from the sights and sounds of the hunt. The roar of shotguns with geese falling out of the sky may be offensive—and confusing—to persons who visit refuges while hunts are in progress. Likewise, large numbers of deer carcasses hanging at a check-station may create an unpleasant atmosphere if viewed by visitors not kindly disposed to hunting. . . . Aggressive competent public relations initiatives must be an integral part of a hunting program. . . . If hunting is to survive on national wildlife refuges we must take whatever steps as are necessary to place our hunting programs in a firm, defensible posture. (Schmidt, 1973, pp. 4–6, 13)

Socialization

From childhood, Americans are taught both to love and to consume animals. Conflict between these practices is avoided in part by deemphasizing consumed animals as objects of affection (Singer, 2002). Conflict is also minimized by socializing children to believe that meat comes from happy farm animals who live in idyllic settings (see Figure 1). As a result of such messages, children

³ This information comes from an informational brochure entitled “When Is a Cow More Than a Cow?” published by the American National CattleWomen, and can also be found in Rifkin (1992).

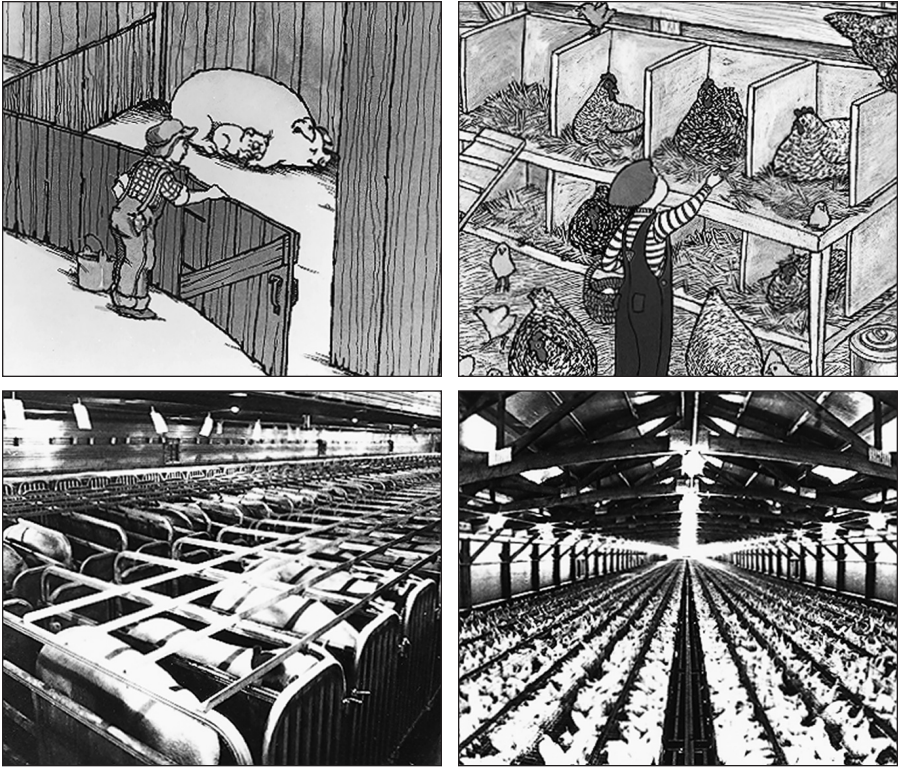


FIGURE 1

This figure compares farm animals as they are depicted in children's books with farm animals as they actually live in intensive confinement. (Henhouse illustration reprinted with permission of Scholastic Press from *Old MacDonald*, copyright © 1999 by Amy Schwartz. Pig illustration reprinted with permission of McIntosh and Otis, Inc., from *The Pig Who Saw Everything*, published by Seabury Press, © 1978 by Dick Gackenbach. Photographs reprinted with permission of Jim Mason.)

are often left with the impression that farm animals lead untroubled lives. For example, one study found that elementary school children rated farm animals as less likely than other types of animals to experience unhappiness (Plous, 1993). In this study, only 26% of students said that farm animals sometimes feel unhappy, compared with 46% who thought companion animals at times feel unhappiness and 53% who thought wild animals feel unhappiness.

In addition, many students were unaware of the uses to which farm animals are put. In the second half of the study, children were shown pictures of nine common animal products (along with four decoy items not made from animals) and were asked to identify the animal of origin, if any. The animal products, along with the overall percentage of students who correctly identified them, were as follows: bacon (88%), hotdog (77%), cheese (74%), butter (72%), wool blanket (67%), ice cream (49%), hamburger (46%), leather jacket

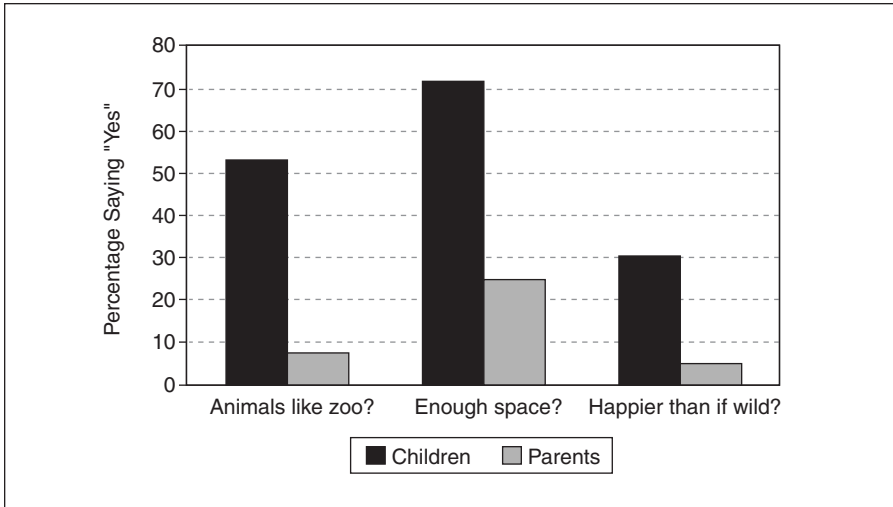


FIGURE 2

In a study conducted at the National Zoo, children were significantly more likely than their parents to believe that animals enjoy being in the zoo, that the animals have enough space, and that zoo animals are happier than their wild counterparts.

(21%), and silk tie (5%). First graders averaged 4.1 items correct, third graders averaged 4.4 correct, and fifth graders averaged 6.0 correct. Thus, first and third graders missed roughly half the items, and fifth graders missed an average of one in three. These findings suggest that even through age 10 or 11, children frequently fail to link common animal products with live animals.

Many young children are also taught that zoo animals lead happy lives, despite the fact that parents often believe the opposite. In an onsite study of zoo visitors, for example, children were significantly more likely than their parents to see the animals as content (Plous, 1993). This study was conducted at the National Zoo in Washington, DC, and included interviews with 50 children (21 girls and 29 boys, with a mean age of 7.9 years) and surveys of adults who were accompanying the children. The children and their parents/guardians answered three key questions, among others: (1) Do you think most zoo animals like being in the zoo? (2) Do you feel that most of the animals here have enough space to be happy? and (3) Are zoo animals happier than animals like them living in the wild? In answer to all three questions, children were far likelier than adults to view the animals as happy.⁴ For example, the majority of children thought that zoo animals liked being in the zoo, whereas only 1 adult in 14 felt this way (see Figure 2).

⁴ Because all three questions were worded so that a positive response indicated greater zoo animal welfare, an alternative explanation for these findings is that children simply answered "yes" more often than did adults. Survey data from negatively worded questions rendered this explanation unlikely, however.

Conflict Reduction

Because consumptive practices are ordinarily dissociated from the infliction of pain, people rarely experience emotional conflict over their use of animals. In some instances, however, the infliction of harm is unusually salient. In such cases, people employ a number of mechanisms to reduce the dissonance between perceptions of themselves as compassionate and the realization that they are hurting animals. Probably the most common of these mechanisms is simply to avoid the topic when it comes up. Other ways of reducing conflict include asserting that the use of animals is necessary for survival,⁵ downplaying one's own use of animals, belittling the issue through the use of humor, and claiming that the use of animals causes no more suffering than its alternatives.

One of the most common means of dissonance reduction is to deny that animals feel pain in the same way that humans do. The historical roots of this position go back to the French philosopher René Descartes, who likened animals to machines (Regan & Singer, 1989). In contemporary society, this view is particularly ironic given the prominent role of animal experimentation in pain research (Perl & Kruger, 1996). The way most nonhuman mammals react to pain is remarkably similar in physiology, behavior, and evolutionary purpose to the way that humans react to pain. For example, nonhuman mammals commonly respond with increases in pulse rate, changes in blood pressure, perspiration, pupil dilation, and releases of endogenous opiates that can be blocked by naloxone (Rollin, 1986). Animals and humans also display many of the same behaviors in response to pain, such as writhing, grimacing, crying out, cringing before being struck, and attempting to avoid the source of pain. In fact, many nonhuman mammals may feel even *more* pain than humans; their senses are often more acute than human senses, and their modern-day survival depends more heavily upon sensory information (Serjeant, 1969). Nonetheless, animals are frequently treated as though they do not feel pain. For instance, in the United States cattle are usually branded, dehorned, and castrated without anesthesia (Fox, 1980; Rifkin, 1992).

⁵ In contrast to the thesis that meat is necessary for human survival, the anthropological and historical record suggests that the earliest hominids were not prodigious hunters, but rather were limited to opportunistic scavenging of carcass remnants abandoned by carnivores (Speth, 1989). According to the American Dietetic Association, "Most of mankind for much of human history has subsisted on near-vegetarian diets. The vast majority of the population of the world today continues to eat vegetarian or semi-vegetarian diets for economic, ecologic, philosophical, religious, cultural, or other reasons" (1980, p. 62). Moreover, human physiology departs significantly from the physiology of most mammalian carnivores (Cox, 1980). Humans have long bowels well suited for fermentative bacteria, rather than short bowels adapted for rapid expulsion of putrefactive bacteria. Humans have short teeth and no claws, rather than long teeth and retractable claws. Humans jaws move laterally rather than strictly up and down, and unlike carnivores, humans secrete relatively little hydrochloric acid to dissolve bones. Human saliva also differs from the saliva of most carnivores in containing ptyalin for predigestion of starches.

An extreme variant of the Cartesian position is that animals are not only immune to suffering, but that they actually *prefer* to be used—that they freely present themselves to be used, and that people do them a favor by using them (see Figure 3). For example, for many years a famous series of advertisements featured a tuna named Charlie who was disappointed at not being eaten. Another well-known advertising campaign implied that being made into a wiener was something to be wished for. Smiling and laughing cows are often used to promote dairy products, and a rooster was used to promote the largest retail restaurant chain specializing in fried chicken. A leading producer of chickens even advertised that its animals lived in “chicken heaven” (Feder, 1989). These advertisements claimed that the

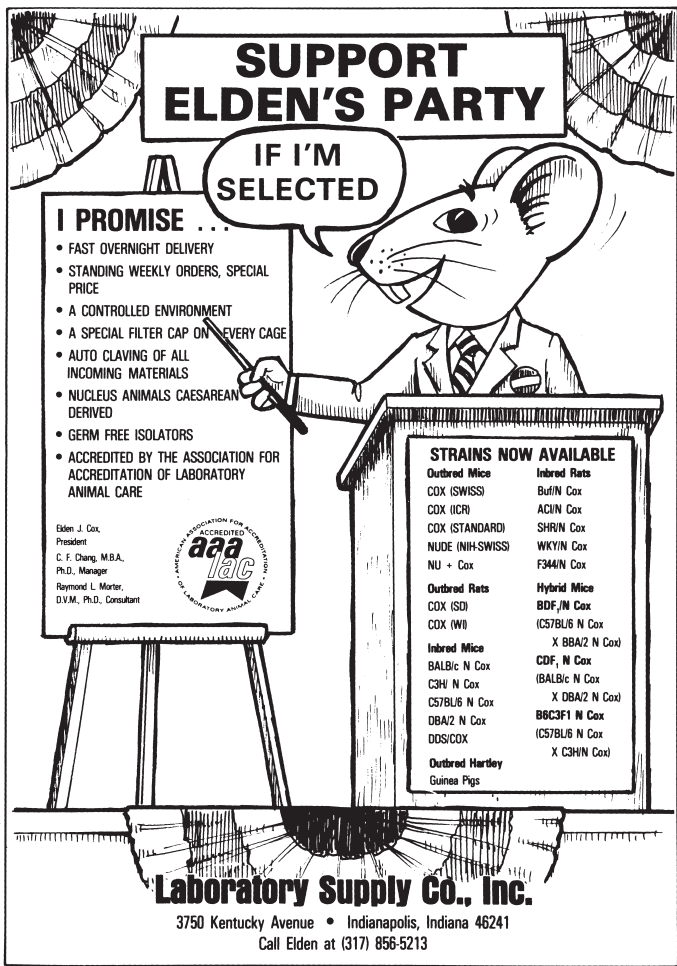


FIGURE 3
This figure shows an example of how laboratory animals have been portrayed as wanting to be used (from *Laboratory Animal Science*, 1980, December, p. 1049).

chickens “lead such a soft life they can’t help but turn out tender. They live in \$60,000 houses, get eight hours sleep and eat princely meals that include cookies for dessert.”

Hunting and trapping are two other animal uses that have been portrayed as a favor to animals. As John Mitchell (1979, p. 20) reported in his study of hunters: “I have talked with hunters from every region of the nation and sooner or later there is one in every crowd who attempts to convince me that hunting is a public service to wild animals.” In his book *In Defense of Hunting*, for example, James Swan (1995) argued that hunters were “heroes” who spared animals from the ravages of starvation and disease. According to Swan (p. 160), “If all hunting in America were to stop tomorrow, the consequences for many species would be devastating.”

In much the same way, trappers routinely portray their activities as a kindness to animals. For instance, a leading trapper periodical published an article from “the red fox” that said:

When you see a fox hunter or trapper, which is a predator to us, think about what he stands for. He takes the sick, the weak and the excess to keep us from getting overpopulated so we don’t starve. . . . So maybe the next time you see such a guy, you could thank him for what he is doing for us. (Eldridge, 1991, p. 9)

There are several reasons to believe that hunting and trapping are not performed as a service to animals. First, if overpopulation were the reason for these activities, wildlife authorities would work to lower the birth rate of the animals in question. Instead, wildlife managers often strive to *increase* the population of many hunted and trapped species (Dommer, 1989; U.S. Department of the Interior, 1993, 1996). Second, if it were in the collective interest of animals to have their numbers reduced, sharpshooters could be hired to humanely kill diseased members of the population. Currently, millions of animals are wounded each year by unskilled shooters, thousands die painful deaths during special seasons for bow and arrow or by being caught in leghold traps, and the majority of hunters work against natural selection by killing the largest and healthiest members of the population (Motavalli, 1995; Regenstein, 1975).

Another common way people reduce conflict over their use of animals is to acknowledge that animals feel pain but to deny that animals are intelligent or self-aware. One of the earliest proponents of this position was Saint Augustine, who wrote 16 centuries ago: “We can perceive by their cries that animals die in pain, although we make little of this since the beast, lacking a rational soul, is not related to us by a common nature” (Augustine, 390/1966, p. 105).

Yet ever since Kohler (1925) documented the extraordinary problem-solving abilities of chimpanzees in *The Mentality of Apes*, research has steadily revealed greater animal intelligence and awareness than previously assumed (for overviews, see Hauser, 2000; Page, 1999). For example, Koko—a gorilla who was taught American Sign Language and had a working vocabulary of

375 signs by age seven—consistently scored between 85 and 95 on the Stanford-Binet Intelligence Scale (Patterson, 1978). Several studies on self-awareness have documented that chimpanzees, orangutans, and pigeons are capable of using mirrors to locate body markings that cannot be seen directly (Epstein, Lanza, & Skinner, 1981; Gallup, 1977). Chimpanzees in the wild, when ill, have been observed to seek out bitter-tasting medicinal plants and medicate themselves in appropriate dosages (Huffman & Seifu, 1989), and there is now compelling evidence of culturally learned behaviors among chimpanzee groups (Whiten et al., 2001).

Research on nonprimates has yielded equally surprising results. For instance, Pepperberg (1990) taught an African gray parrot to verbally identify the name, shape, and color of objects chosen from a set of 100 possible combinations. Research has also shown that rats are able to discriminate among their own behaviors and press levers corresponding to whether they are face-washing, walking, rearing, or immobile (Beninger, Kendall, & Vanderwolf, 1974). Pigeons are able to exchange information on their level of arousal by pecking keys that correspond to different drug-induced mood states (Lubinski & Thompson, 1987), and have been trained to discriminate among human facial expressions of happiness, anger, surprise, and disgust (Browne, 1989).

Research aside, though, the use of animals depends not so much on issues of intellect or self-awareness as on species membership itself. Society does not consume mentally impaired people, nor does it assume that because such people lack speech and reason, they also lack the ability to feel pain—quite the contrary, it typically extends extra protection to individuals who are unable to speak for themselves (e.g., infants, toddlers, people with mental disabilities). The next section explores whether research findings on human intergroup biases can be fruitfully applied to human-animal relations.

The Similarity Principle

Parallels between prejudice against human outgroups and prejudice against animals have long been recognized by such prominent thinkers as Jeremy Bentham, Charles Darwin, John Stuart Mill, Harriet Beecher Stowe, Frederick Douglass, Albert Schweitzer, and Ashley Montagu. Erik Erikson (1985) even went so far as to describe human outgroup biases as “pseudospeciation.” As Spiegel (1988) pointed out, American slaves were sometimes hunted just as animals are hunted today, and not long ago, African Americans served as laboratory animals in medical experiments. For example, in the Tuskegee syphilis study—begun in 1932 and funded by the U.S. Public Health Service—Black men were not told that they had syphilis and were left untreated for up to forty years (Jones, 1981).

Early in American history, it was also assumed by many White people that other races had higher pain thresholds than Whites (Pernick, 1985). For instance, one 18th-century author declared, “What would be the cause of un-

supportable pain to a white man, a Negro would almost disregard" (cited in Winchell, 1880, p. 178). Likewise, another prominent writer claimed, "Among your red Indian and other uncivilized tribes, the parturient female does not suffer the same amount of pain during labour, as the female of the white race" (Simpson, 1849, p. 246). Members of racial minorities have often been described explicitly as animals (e.g., "Judge says," 1991; Plous & Williams, 1995; Reinhold, 1991), and for a time, some authors even attempted to prove scientifically that Black people are apes (e.g., Carroll, 1900/1969).

If animals are viewed as an outgroup in the same sense that members of another race, religion, or nationality are regarded as an outgroup, then psychological research on intergroup relations may be relevant to how people perceive animals. Such research has shown that ingroup members tend to see outgroup members as inferior (Brewer, 1979) and more homogeneous than ingroup members (Park & Rothbart, 1982). Research has also shown that the very act of categorization itself leads to an overestimation of between-group differences and an underestimation of within-group differences (Tajfel & Wilkes, 1963; Wilder, 1986), which suggests that perceived differences between humans and animals (e.g., in the capacity to feel pain) may be exaggerated. Although there are obviously profound differences between humans and other species, outgroup biases against animals may foster the impression that individual animals are not unique and irreplaceable in the same way people are (see, for example, Adler, 1985).

A common denominator between outgroup biases based on species membership and outgroup biases based on racial or ethnic membership can be summarized in the following rule, which might be called the "Similarity Principle": *In general, people give more consideration to others who are perceived as similar to themselves than to those who are perceived as dissimilar.*⁶ For example, people are more physiologically aroused when watching a person with similar traits suffer than when watching a dissimilar person suffer (Krebs, 1975), and there is some evidence that people empathize more readily with others of the same sex (e.g., Feshbach & Roe, 1968). Studies also suggest that identical twins grieve at the loss of a co-twin more intensely than do fraternal twins (Segal, 1990), and that parents grieve more intensely for children who resemble their side of the family (Littlefield & Rushton, 1986).

Returning to human-animal relations, research indicates that perceived similarity may affect physiological reactions to animal abuse (Plous, 1993). In this study, the skin conductance⁷ of 89 college students was monitored as they watched a videotape of apparent animal abuse (the videotape was actually

⁶ In a very different context, Sherman, Chassin, Presson, and Agostinelli (1984) discussed a "similarity principle," but the principle they proposed was the following: "People who are generally good and toward whom I am oriented positively are similar to me. People who are generally bad are dissimilar to me" (p. 1246). This principle is conversely related to the Similarity Principle advanced here.

⁷ Skin conductance tends to increase with sweating and is therefore a popular measure of physiological arousal.

staged without harming an animal). Prior to the videotape, students were instructed as follows:

The purpose of today's experiment is to get your reactions to an emotional scene. In particular, you'll be watching a 6–7 minute videotape that was filmed at a nearby animal rehabilitation center known as CARE—the Center for Animal Rehabilitation and Education. CARE helps to heal or find homes for all sorts of animals—from farm animals to wildlife to exotic species such as chimpanzees and baboons. As part of their educational program for young children, they also maintain a petting zoo and a collection of snakes, frogs, and so on.

The scene you are about to see involves animal abuse. A female worker at CARE heard some firecrackers go off near the edge of the property, went to see what was happening, and saw a group of people (mostly men) who had broken in and were injuring one of the animals. . . . She wanted to intervene, but because she was the only worker on duty and felt afraid of the men, she ran to get a video camera which CARE uses in its education program. She then returned and secretly videotaped the people as they injured the animal. CARE would like to use footage from this tape in an anti-cruelty campaign, but because the footage is so graphic, they have blocked out the animal with a black box (like you see in interviews when a person's identity is protected, only much larger).

Participants were told that the experimenters wanted to see whether the videotape would be more effective when supplemented with a color slide of the animal before it was injured (all participants were told that they had been assigned to the "slide condition"). Then the laboratory lights were dimmed, and a slide of one of four animals was projected onto a screen: a vervet monkey, a raccoon, a pheasant, or a bullfrog. These animals were selected for several reasons: (1) pilot tests indicated that they differed reliably in perceived similarity to humans, (2) they represented a wide range of animals (i.e., a primate, nonprimate mammal, bird, and amphibian), (3) they were all medium-sized animals that could plausibly appear obscured by the black box, and (4) none had a privileged status (e.g., chimpanzees, dogs) or were routinely harmed by humans (e.g., chickens, pigs).

Using this procedure, the same videotape was shown in all four experimental conditions; the only element that varied was the animal *thought* to be the victim of abuse. The main results of the study, as shown in Figure 4, were consistent with the Similarity Principle. Perceived similarity was directly related to average skin conductance scores, maximum skin conductance scores, and self-reports of how difficult it was to watch the videotape (with students in the monkey condition reporting the most difficulty watching the tape). Thus, people found it most upsetting to witness the abuse of others who were similar to them, even when the others were not human.

Of course, it is worth noting that the Similarity Principle does not mean that perceived similarity *always* makes a difference or that outgroup biases are based on dissimilarity *alone*, for there is abundant evidence that the

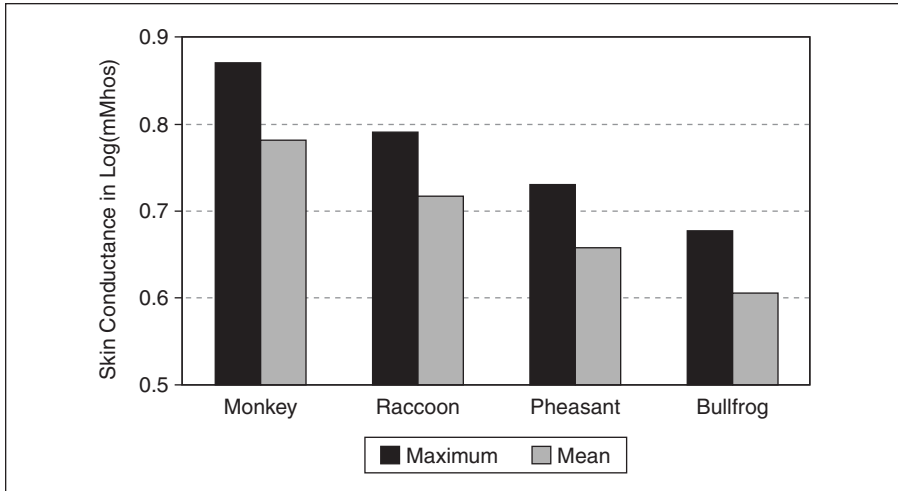


FIGURE 4

When participants in a laboratory study watched scenes of what appeared to be animal abuse, their skin conductance (a measure of physical arousal) decreased with the animal's perceived similarity to humans.

perception and treatment of outgroups also depends on factors such as beauty, familiarity, economic value, status, and potential harmfulness (e.g., Burghardt & Herzog, 1980; Kellert, 1979, 1980).⁸ Rather, the Similarity Principle merely suggests that speciesism shares certain psychological features with other forms of prejudice. Because of this correspondence—and because animals are important in their own right—speciesism deserves greater attention than it has heretofore received.

REFERENCES

- Adams, C. (1990). *The sexual politics of meat: A feminist-vegetarian critical theory*. New York: Continuum.
- Adler, M. J. (1985). *Ten philosophical mistakes*. New York: Macmillan.
- Althouse, D. (1985, September). How to talk about fur farming. *The Trapper*, p. 88.
- American Dietetic Association. (1980). Position paper on the vegetarian approach to eating. *Journal of the American Dietetic Association*, 77, 61–69.
- Augustine, S. (390/1966). *The Catholic and Manichaean ways of life*. Washington, DC: Catholic University of America Press.
- Baker, R. (1985). *The American hunting myth*. New York: Vantage Press.
- Barker, S. B., & Barker, R. T. (1988). The human-canine bond: Closer than family ties? *Journal of Mental Health Counseling*, 10, 46–56.
- Beninger, R. J., Kendall, S. B., & Vanderwolf, C. H. (1974). The ability of rats to discriminate their own behaviours. *Canadian Journal of Psychology*, 28, 79–91.

⁸ For example, many people would undoubtedly give greater consideration to an endangered species of butterfly than an endangered species of rat, even if they perceived the rat as more similar to humans.

- Bradna, F., & Spence, H. (1952). *The big top: My forty years with the Greatest Show on Earth*. New York: Simon & Schuster.
- Brewer, M. B. (1979). In-group bias in the minimal intergroup situation: A cognitive-motivational analysis. *Psychological Bulletin*, 86, 307–324.
- Bridges, W. (1974). *Gathering of animals: An unconventional history of the New York Zoological Society*. New York: Harper & Row.
- Browne, M. W. (1989, May 2). A smile or a grimace? Ask a pigeon's opinion. *New York Times*, p. 22.
- Burghardt, G. M., & Herzog, H. A., Jr. (1980). Beyond conspecifics: Is Brer Rabbit our brother? *Bioscience*, 30, 763–768.
- Carroll, C. (1900/1969). *The negro a beast*. Miami, FL: Mnemosyne Publishing Co.
- Comaromi, J. P. (Ed.). (1989). *Dewey decimal classification and relative index: Devised by Melvil Dewey* (Ed. 20, Vol. 3). Albany, NY: Forest Press.
- Cox, M. (1980). *The subversive vegetarian*. Santa Barbara, CA: Woodbridge Press.
- Dommer, L. A. (1989, April). A hunter's delusions: Saving the deer from starvation. *Animal's Voice*, pp. 82–84.
- Eldridge, F. (1991, January). The red fox. *Trapper and Predator Caller*, pp. 8–9.
- Ellena, N. (1980, February 28). Youths sent to prison. *Chico Enterprise-Record*, pp. 1A, 4A.
- Epstein, R., Lanza, R. P., & Skinner, B. F. (1981). "Self-awareness" in the pigeon. *Science*, 212, 695–696.
- Erikson, E. H. (1985). Pseudospeciation in the nuclear age. *Political Psychology*, 6, 213–215.
- Feder, B. J. (1989, November 26). Pressuring Perdue. *New York Times Magazine*, pp. 32–33, 60, 72.
- Feshbach, N. D., & Roe, K. (1968). Empathy in six- and seven-year-olds. *Child Development*, 39, 133–145.
- Fox, M. W. (1980). *Factory farming*. Washington, DC: Humane Society of the United States.
- Fox, M. W. (1997). *Eating with conscience: The bioethics of food*. Troutdale, OR: NewSage Press.
- Gallup, G., Jr. (1997). *The Gallup poll: Public opinion 1996*. Wilmington, DE: Scholarly Resources Inc.
- Gallup, G. G., Jr. (1977). Self-recognition in primates: A comparative approach to the bidirectional properties of consciousness. *American Psychologist*, 32, 329–338.
- Gwynn, S. (1924). The case for certain cruelties. *The Spectator*, 132, 912–913.
- Hauser, M. D. (2000). *Wild minds: What animals really think*. New York: Henry Holt and Company.
- Hobson, P. (1983). *Raising a calf for beef*. Pownal, VT: Garden Way Publishing.
- Hornaday, W. T. (1906). An African pigmy. *Zoological Society Bulletin*, 23, 301–302.
- Hoyt, D. (1979). *Fact or fallacy? A trapper tells the truth*. Marshall, MI: National Trappers Association.
- Huffman, M. A., & Seifu, M. (1989). Observations on the illness and consumption of a possibly medicinal plant *Vernonia amygdalina* (DEL.), by a wild chimpanzee in the Mahale Mountains National Park, Tanzania. *Primates*, 30, 51–63.
- Jasper, J. M., & Nelkin, D. (1992). *The animal rights crusade: The growth of a moral protest*. New York: The Free Press.
- Johnston, L. (1979, January 10). Newfoundland seal harvest in March stirs early storm. *New York Times*, p. B6.
- Jones, J. H. (1981). *Bad blood: The Tuskegee syphilis experiment*. New York: The Free Press.
- Judge says remarks on 'Gorillas' may be cited in trial on beating. (1991, June 12). *New York Times*, p. A24.
- Kellert, S. R. (1979). *Public attitudes toward critical wildlife and natural habitat issues* (U.S. Fish and Wildlife Report No. PB-80-138332). Washington, DC: U.S. Government Printing Office.
- Kellert, S. R. (1980). American attitudes toward and knowledge of animals: An update. *International Journal for the Study of Animal Problems*, 1, 87–119.

- Kellert, S. R., & Berry, J. K. (1980). *Knowledge, affection and basic attitudes toward animals in American society* (U.S. Fish and Wildlife Service Report No. PB-81-173106). Washington, DC: U.S. Government Printing Office.
- Kohler, W. (1925). *The mentality of apes*. New York: Harcourt, Brace & Company.
- Krebs, D. (1975). Empathy and altruism. *Journal of Personality and Social Psychology*, 32, 1134–1146.
- Lederer, S. E. (1992). Political animals: The shaping of biomedical research literature in twentieth-century America. *Isis*, 83, 61–79.
- Littlefield, C. H., & Rushton, J. P. (1986). When a child dies: The sociobiology of bereavement. *Journal of Personality and Social Psychology*, 51, 797–802.
- Lubinski, D., & Thompson, T. (1987). An animal model of the interpersonal communication of interoceptive (private) states. *Journal of the Experimental Analysis of Behavior*, 48, 1–15.
- Man and monkey show disapproved by clergy. (1906, September 10). *New York Times*, pp. 1–2.
- Mason, J. & Singer, P. (1990). *Animal factories* (revised and updated). New York: Harmony Books.
- McCarthy, V. P. (1982). The changing concept of animals as property. *International Journal for the Study of Animal Problems*, 3, 295–300.
- McKenna, C. (1998). *Fashion victims: An inquiry into the welfare of animals on fur farms*. London: World Society for the Protection of Animals.
- Meat has many mysteries. (1977, May 5). *Meat Trades Journal*, p. 12.
- Mitchell, J. G. (1979). *The hunt*. New York: Penguin Books.
- Motavalli, J. (1995, September–October). The killing game: A slow fade. *E: The Environmental Magazine*, p. 36.
- Page, G. (1999). *Inside the animal mind*. New York: Doubleday.
- Park, B., & Rothbart, M. (1982). Perception of out-group homogeneity and levels of social categorization: Memory for the subordinate attributes of in-group and out-group members. *Journal of Personality and Social Psychology*, 42, 1051–1068.
- Patterson, F. (1978). Conversations with a gorilla. *National Geographic*, 154, 438–465.
- Pepperberg, I. M. (1990). Cognition in an African gray parrot (*Psittacus erithacus*): Further evidence for comprehension of categories and labels. *Journal of Comparative Psychology*, 104, 41–52.
- Perl, E. R., & Kruger, L. (1996). Nociception and pain: Evolution of concepts and observations. In L. Kruger (Ed.), *Pain and touch* (pp. 179–211). San Diego, CA: Academic Press.
- Pernick, M. S. (1985). *A calculus of suffering: Pain, professionalism, and anesthesia in nineteenth-century America*. New York: Columbia University Press.
- Plous, S. (1993). Psychological mechanisms in the human use of animals. *Journal of Social Issues*, 49, 11–52.
- Plous, S., & Williams, T. (1995). Racial stereotypes from the days of American slavery: A continuing legacy. *Journal of Applied Social Psychology*, 25, 795–817.
- Regan, T., & Singer, P. (Eds.). (1989). *Animal rights and human obligations* (2nd ed.). Englewood Cliffs, NJ: Prentice Hall.
- Regenstein, L. (1975). *The politics of extinction*. New York: Macmillan.
- Reinhold, R. (1991, July 10). Study of Los Angeles police finds violence and racism are routine. *New York Times*, pp. A1, A14.
- Rifkin, J. (1992). *Beyond beef: The rise and fall of the cattle culture*. New York: Dutton.
- Robbins, J. (2001). *The food revolution: How your diet can help save your life and the world*. Berkeley, CA: Conari Press.
- Rollin, B. E. (1986). Animal pain. In M. W. Fox & L. D. Mickley (Eds.), *Advances in animal welfare science 1985* (pp. 91–106). Boston: Martinus Nijhoff Publishers.
- Sahlins, M. (1976). *Culture and practical reason*. Chicago: University of Chicago Press.
- Scientific Committee on Animal Health and Animal Welfare, European Commission Health and Consumer Protection Directorate-General. (2001, December 12–13). *The*

- welfare of animals kept for fur production: Report of the Scientific Committee on Animal Health and Animal Welfare. Retrieved February 8, 2002, from the European Commission Web site at http://europa.eu.int/comm/food/fs/sc/scah/out67_en.pdf
- Schleifer, H. (1985). Images of death and life: Food animal production and the vegetarian option. In P. Singer (Ed.), *In defense of animals* (pp. 63–73). New York: Harper & Row.
- Schmidt, V. (1973). *Policy on public hunting on lands and waters within the national wildlife refuge system* (Policy Update No. 4). Washington, DC: Bureau of Sport Fisheries and Wildlife.
- Segal, N. L. (1990, June). *Grief associated with twin loss exceeds grief associated with other relatives*. Paper presented at the meeting of the American Psychological Society, Dallas, TX.
- Serjeant, R. (1969). *The spectrum of pain*. London: Rupert Hart-Davis.
- Serpell, J. (1986). *In the company of animals: A study of human-animal relationships*. New York: Basil Blackwell.
- Sheraton, M. (1982, December 15). John Updike ruminates on matters gustatory. *New York Times*, pp. C1, C8.
- Sherman, S. J., Chassin, L., Presson, C. C., & Agostinelli, G. (1984). The role of the evaluation and similarity principles in the false consensus effect. *Journal of Personality and Social Psychology*, 47, 1244–1262.
- Shroeder, G. (1989, March). Raw fur markets. *Fur-Fish-Game*, p. 54.
- Siegel, J. (1993). Companion animals: In sickness and in health. *Journal of Social Issues*, 49, 157–167.
- Sierra Club v. Rogers C. B. Morton. (1974). *Supreme Court Reporter*, 405–408, 1361–1378.
- Simpson, J. Y. (1849). *Anaesthesia, or the employment of chloroform and ether in surgery, midwifery, etc.* Philadelphia, PA: Lindsay & Blakiston.
- Singer, P. (2002). *Animal liberation: A new ethics for our treatment of animals*. New York: Ecco, HarperCollins.
- Speth, J. D. (1989). Human evolution: New questions. *Science*, 243, 241–242.
- Spiegel, M. (1988). *The dreaded comparison: Race and animal slavery*. Philadelphia, PA: New Society Publishers.
- Steinhart, P. (1988, November). Electronic intimacies. *Audubon*, pp. 10, 12–13.
- Swan, J. A. (1995). *In defense of hunting*. San Francisco, CA: HarperSanFrancisco.
- Tajfel, H., & Wilkes, A. L. (1963). Classification and quantitative judgement. *British Journal of Psychology*, 54, 101–114.
- Turner, W. (1980, February 28). Two white men get 25 years in random murder of a black. *New York Times*, p. A16.
- U.S. Department of the Interior. (1993, September). *Big game habitat management*. Washington, DC: Bureau of Land Management.
- U.S. Department of the Interior. (1996). *Adaptive harvest management: Considerations for the 1996 duck hunting season*. Laurel, MD: U.S. Fish and Wildlife Service.
- Weld, T. D. (1839/1968). *American slavery as it is: Testimony of a thousand witnesses*. New York: Arno Press.
- Whiten, A., Goodall, J., McGrew, W. C., Nishida, T., Reynolds, V., Sugiyama, Y., et al. (2001). Cultures in chimpanzees. *Nature*, 399, 682–685.
- Wilder, D. A. (1986). Social categorization: Implications for creation and reduction of intergroup bias. In L. Berkowitz (Ed.), *Advances in Experimental Social Psychology* (Vol. 19, pp. 291–355). New York: Academic Press.
- Winchell, A. (1880). *Preadamites*. Chicago: S. C. Griggs and Company.
- Wood, D. (1971). Strategies. In S. Godlovitch, R. Godlovitch, & J. Harris (Eds.), *Animals, men and morals: An enquiry into the maltreatment of non-humans* (pp. 193–212). New York: Taplinger Publishing Company.