

SCIENCE PRIORITIES

Inappropriate Use and Portrayal of Chimpanzees

S. R. Ross,^{1,2} K. E. Lukas,³ E. V. Lonsdorf,^{1,4} T. S. Stoinski,^{5,6} B. Hare,⁷ R. Shumaker,^{8,9} J. Goodall¹⁰

In North America alone, about 2300 chimpanzees live in a variety of settings from accredited zoological parks to laboratories and sanctuaries. However, in 44 of the 50 states in America, chimpanzees can also be privately owned as pets and/or used as actors and photographer's props in the entertainment and media industry (1). In movies, television shows, and advertisements, chimpanzees are often depicted as caricatures of humans, dressed in clothes and/or photographed in contrived poses. For example, chimpanzees are portrayed as misbehaving business executives in the popular "Careerbuilder" advertisements. More recently, chimpanzees were shown dressed in hats while reading an issue of *Science* magazine in a promotional campaign by the American Association for the Advancement of Science (AAAS) (although, it should be noted that the campaign was halted when AAAS was made aware of objections). Such inappropriate portrayals are viewed by millions of people annually and may influence the way in which members of the general public perceive this endangered great ape.

In 2005, a survey (see the table, left side) was conducted at the Regenstein Center for African Apes (RCAA) at the Lincoln Park Zoo (Chicago, IL). The full survey was made up of 56 questions with the intent of assessing the effect of a new facility on visitor knowledge and attitudes toward apes (2). The final question of the survey asked respondents to select which of three great ape species (chimpanzees, gorillas, and orangutans) were considered endangered in the wild. Labeled photographs were used to ensure that species identification

was correct, and the order of the species list was randomized. Of those choices, 95% of respondents thought gorillas were endangered, 91% thought orangutans were endangered, but only 66% believed chimpanzees to be endangered. This species-level difference was significant by a two-way χ^2 analysis for chimpanzees versus gorillas (CvG), $\chi = 37.726$, $df = 1$, $P < 0.001$; for chimpanzees versus orangutans (CvO), $\chi = 22.588$, $df = 1$, $P < 0.001$ (see table, right)

(2). A follow-up question addressed the potential explanation for such a difference. Respondents were informed that, in fact, all three great apes were classified as endangered and then asked for a reason why they thought a particular ape was not considered in this category. No prompting with answers was provided, and all responses were recorded by the interviewer. Of the 250 respondents who were willing to provide explanations for their choice, the most common reason for the category chosen (35%) was that chimpanzees were commonly seen on television, advertisements, and movies and, therefore, must not be in jeopardy.

The results were later duplicated in a similar survey (see the table, right side) of 132 visitors to the Great Ape Trust of Iowa (GATI) (Des Moines, IA) in 2006 (2). There, only 72% of respondents thought chimpanzees were endangered (compared with 94% for gorillas and 92% for orangutans) (for CvG, $\chi = 22.53$, $P < 0.001$; for CvO, $\chi = 17.21$, $P < 0.001$). Of those who did not believe chimpanzees were endangered, 30% justified their response by noting how often they see chimpanzees in the media and as pets. Given the reality facing chimpanzees in the wild—current estimates are that populations could go extinct in the next several decades (3)—such data highlight the importance of accurately representing chimpanzees

Depictions of chimpanzees as caricatures can lead people to think these animals are not endangered and is a problem for conservation and welfare efforts.



SURVEY RESPONSES

	RCAA		GATI	
	Yes	No	Yes	No
Chimpanzees	665	333	95	37
Gorillas	953	45	124	8
Orangutans	911	87	121	11

and other apes in popular media, particularly by professional publications such as *Science*.

The inappropriate portrayal of great apes in advertisements undermines the scientific, welfare, and conservation goals that we and many readers work hard to achieve (4). Respected organizations such as AAAS must take a leadership role in promoting ethically sound practices not only in research they promote, but in fields as diverse as public relations and marketing. Together with like-minded organizations such as the International Society of Prima-

tologists (IPS) and the Association of Zoos and Aquariums (AZA), we can make progress in shifting the perception of chimpanzees as frivolous subhumans that are not in danger of extinction to more scientifically accurate characterizations of our closest relatives that stir interest, respect, and conservation efforts.

References and Notes

1. Although some states have strict permitting regulations, grandfather clauses, and other allowances, we have identified only six states in which it is impossible for a private citizen (nonzoo, nonresearch) to own a chimpanzee. Although there is progress on this front in several states, at least 21 states have no or minimum permitting requirements at all (S.R.R. and S. Baekler, personal communication).
2. Materials and methods are available as supporting materials on *Science* Online.
3. C. Tutin *et al.*, *Regional Action Plan for the Conservation of Chimpanzees and Gorillas in Western Equatorial Africa* (Center for Applied Biodiversity Science, Conservation International, Washington, DC, 2005).
4. In addition to these potentially broad effects on conservation attitudes, the use of chimpanzees by the entertainment industry deserves attention if only for individual welfare considerations. Although these animals are technically regulated by the Animal Welfare Act, enforcement of these regulations is difficult, and many chimpanzees are subject to suboptimal rearing, housing, and care, with short- and long-term welfare consequences.

Supporting Online Material

www.sciencemag.org/cgi/content/full/319/5869/1487/DC1

10.1126/science.1154490

¹Lester E. Fisher Center for the Study and Conservation of Apes, Lincoln Park Zoo, Chicago, IL 60614, USA.

²Chimpanzee Species Survival Plan (SSP) of the Association of Zoos and Aquariums (AZA), Silver Spring, MD 20910, USA.

³Cleveland Metroparks Zoo, Cleveland, OH, and Case Western Reserve University, Cleveland, OH 44109, USA.

⁴Committee on Evolutionary Biology, University of Chicago, Chicago, IL 60637, USA.

⁵Zoo Atlanta, Atlanta, GA 30315, USA.

⁶Ape Taxon Advisory Group (TAG) at AZA, Silver Spring, MD 20910, USA.

⁷Duke University, Durham, NC 27708, USA.

⁸Great Ape Trust of Iowa, Des Moines, IA 50320, USA.

⁹Krasnow Institute for Advanced Study, Fairfax, VA 22030, USA.

¹⁰The Jane Goodall Institute, Arlington, VA 22203, USA.

*Author for correspondence. E-mail: sross@lpzoo.org