AGAINST ZOOS[1]

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Abstract: *The aim of this paper is to highlight how the structure maintained by zoos contributes to inefficiency of the purposes outlined by them, namely: entertainment, education, preservation of species and research opportunity. Recalling the history of those institutions will be shown that the impacts on the lives of animals have always been to deprive them of their liberty, the right to obtain their own food and develop its own social order.*

Keywords: *Zoos – Animals – liberty.*

Resumo: O objetivo primeiro desse artigo é apontar como a estrutura mantida pelos zoológicos contribui para ineficiência dos fins traçados por eles próprios, a saber: diversão, educação, preservação de espécies e oportunidade de pesquisa. Resgatando o histórico dessas instituições será mostrado que os impactos gerados na vida dos animais sempre foram os de privá-los de sua liberdade, do direito de obter sua própria comida e desenvolver sua própria ordem social.

Palavras-chave: Zoológicos; Animais; Habitat.

Sumário: 1. Zoos and their history; 2. Animals and liberty; 3. Arguments for zoos.

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1. ZOOS AND THEIR HISTORY

We can start with a rough-and-ready definition of zoos: they are public park which display animals, primarily for the purposes of recreation or education. Although large collections of animals were maintained in antiquity, they were not zoos in this sense. Typically these ancient collections were not exhibited in public parks, or they were maintained for purposes other than recreation or education.

The Romans, for example, kept animals in order to have living fodder for the games. Their enthusiasm for the games was so great that even the first tigers brought to Rome, gifts to Caesar Augustus from an Indian ruler, wound up in the arena. The emperor Trajan staged 123 consecutive days of games in order to celebrate his conquest of Dacia. Eleven thousand animals were slaughtered, including lions, tigers, elephants, rhinoceroses, hippopotami, giraffes, bulls, stags, crocodiles and serpents. The games were popular in all parts of the Empire. Nearly every city had an arena and a collection of animals to stock it. In fifth-century France there were twenty-six such arenas, and continued to thrive until at least the eighth century.

In antiquity rulers also kept large collections of animals as a sign of their power, which they would demonstrate on occasion by destroying their entire collections. This happened as late as 1719 when Elector Augustus II of Dresden personally slaughtered his entire menagerie, which included tigers, lions, bulls, bears and boars.

The first modern zoos were founded in Vienna, Madrid e Paris in the eighteenth century and in London and Berlin in the nineteenth. The first American zoos were established in Philadelphia and Cincinnati in the 1870s. Today in the United States alone there are hundreds of zoos, and they are visited by millions of people every year. They range from roadside menageries run by hucksters, to elaborate zoological parks staffed by trained scientists.

The Roman games no longer exist, though bullfights and rodeos follow in their tradition. Nowadays the power of our leaders in amply demonstrated by their command of nuclear weapons. Yet we still have zoos. Why?

2. ANIMALS AND LIBERTY

Before we consider the reasons that are usually given the survival of zoos, we should see that there is a moral presumption against keeping wild animals out of their native habitats, transporting them great distances and keeping them in alien environments in which their liberty is severely restricted. It is surely true that in being taken from the wild and confined zoos, animals are deprived of great many goods. For the most part they are prevented from gathering their own food, developing their own social orders and generally behaving in ways that are natural to them. These activities all require significantly more liberty than most animals are permitted in zoos. If we are justified in keeping animals in zoos, it must be because there are some important benefits than can be obtained only by doing so.

This conclusion is not the property of some particular moral theory; it follows from most reasonable moral theories; it follows from most reasonable moral theories. Either we have duties to animals or we do not. If we do have duties to animals, surely they include respecting those interests which with other, more stringent duties that we may have. Since an interest in not being taken from the wild and kept confined is very important for most animals, it follows that if everything else is equal, we should respect this interest.

Suppose, on the other hand, that we do not have duties to animals. There are two further possibilities: either we have duties to people that sometimes concern animals, or what we do to animals is utterly without moral import. The latter view is quite implausible, and I shall not consider it further. People who have held the former view, that we have duties to people that concern animals, have sometimes thought that such duties arise because we can 'judge the heart of a man by this treatment of animals', as Kant remarked in 'Duties to Animals'. It is for this reason that he condemns the man who shoots a faithful dog who has become too old to serve. If we accept Kant's premise, it is surely plausible to say that someone who, for no good reason, removes wild animals from their natural habitats and denies them liberty is someone whose heart deserves to be judged harshly. If this is so, then

even if we believe that we do not have duties to animals but only duties concerning them, we may still hold that there is a presumption against keeping wild animals in captivity. If this presumption is to be overcome, it must be shown that there are important benefits that can obtained only by keeping animals in zoos.

3. ARGUMENTS FOR ZOOS

What might some of these important benefits be? Four are commonly cited: amusement, education, opportunities for scientific research, and help in preserving species.

Amusement was certainly an important reason for the establishment of the early zoos, and it remains an important function of contemporary zoos as well. Most people visit zoos in order to be entertained, and any zoo that wishes to remain financially sound must cater to this desire. Even highly regarded zoos, like the San Diego Zoo, have their share of dancing bears and trained birds of prey. But although providing amusement for people is viewed by the general public as a very important function of zoos, it is hard to see how providing such amusement could possibly justify keeping wild animals in captivity.

Most curators and administrators reject the idea that the primary purpose of zoos is to provide entertainment. Indeed, many agree that the pleasure we take in viewing wild animals is not in itself a good enough reason to keep them in captivity. Some curators see baby elephant walks, for example, as a necessary evil, or defend such amusement because of their role in education people, especially children, about animals. It is sometimes said that people must be interested in what they are seeing if they are to be educated about it, and entertainments keep people interested, thus making education possible.

This brings us to a second reason for having zoos: their role in education. This reason has been cited as long as zoos have existed. For example, in 1898 the New York Zoological Society resolved to take 'measures to inform the public of the great decrease in animal life, to stimulate sentiment in favor of better protection, and to cooperate with other scientific bodies… (in) effort calculated to secure the perpetual

preservation of our higher vertebrates'. Despite the pious platitudes that are often uttered about the educational efforts of zoos, however, there is little evidence that zoos are very successful in educating people about animals. Stephen Kellert's paper 'Zoological Parks in American Society', delivered at the annual meeting of the American Association of Zoological Parks and Aquariums in 1979, indicates that zoo-goers, are much less knowledgeable about animals than backpacked, hunters, fishermen and other who claim an interest in animals, only slightly more knowledgeable than those who claim no interest in animals at all. Even more disturbing, zoo-goers express the usual prejudices about animals; 73 per cent say they dislike rattlesnakes, 52 per cent vultures and only 4 per cent elephants. One reason why some zoos have not done a better job in educating people is that many of them make no real effort at education. In case of other the problem is an apathetic and unappreciative public.

Edward G. Ludwig's study of the zoo in Buffalo, New York, in the *International Journal for the Study of Animal Problems* for 1981, revealed a surprising amount of dissatisfaction on the part of young, scientifically inclined zoo employees. Must of this dissatisfaction stemmed from the almost complete indifference of the public to the zoo's educational efforts. Ludwig's study indicated that most animals are viewed only briefly as people move quickly past cages. The typical zoo-goer stops only to watch baby animals or those who are begging, feeding or making sounds. Ludwig reported that the most common expressions used to describe animals are 'cute', funny-looking, 'lazy', dirty', 'weird' and 'strange'.

Of course, it is undeniable that some education occurs in some zoos. But this very fact raises other issues. What is that we want people to learn from visiting? Facts about the physiology and behaviour of various animals? Attitudes towards the survival of endangered species? Compassion for the fate of all animals? To what degree does education require keeping wild animals in captivity? Couldn't most of the educational benefits of zoos be obtained by presenting films, slides, lectures and so forth? Indeed, couldn't most of the important education objectives better be achieved by exhibiting empty cages with explanations of why they are empty?

A third reason for having zoos is that they support scientific research. This zoo is a benefit that was pointed out long ago. Sir Humphrey Davy, one of the founders the Zoological Society of London, wrote in 1825: 'It would become Britain to offer another, and a very different series of exhibitions to the population of her metropolis; namely, animals brought from every part of the globe to be applied either to some useful purpose, or as objects of scientific research – not of vulgar admiration!' Zoos support scientific research in at least three ways: they employ other scientists as members of zoo staffs; and they make otherwise inaccessible animals available for study.

The first point we should note is that very few zoos support any real scientific research. Fewer still have staff scientist with full-time research appointments. Among those that do, it is common for their scientist to study animals in the wild rather than those in zoo collections. Much of this research, as well as other field research that is supported by zoos, could just as well be funded in a different way-say, by a government agency. The question of whether there should be zoos does not turn on the funding for field research which zoos currently in zoos is a more important consideration.

Research that is conducted in zoos can be divided into two categories: studies in behaviour and studies in anatomy and pathology.

Behavioural research conducted on zoo animals is very controversial. Some have argued that nothing can be learned by studying animals that are kept in the unnatural condition that obtain in most zoos. Others have argued that captive animals are more interesting research subjects than are wild animals: since captive animals are free from predation, they exhibit a wider range of physical and behavioural traits than animals in the wild, thus permitting researchers to view the full range of their genetic possibilities. Both of these positions are surely extreme. Conditions in some zoos are natural enough to permit some interesting research possibilities. But the claim that captive animals are more interesting research subjects than those in the wild is not very plausible. Environments trigger behaviours. No doubt a predation-free environment triggers behaviours different from those of an animal's natural habitat, but there is no reason to believe that better, fuller or

more accurate data can be obtained in predation-free environments than in natural habitats.

Studies in anatomy and pathology are the most common forms of zoo research. Such research has three main purposes: to improve zoo conditions so that captive animals will live longer, be happier and breed more frequently; to contribute to human health by providing animal models for human ailments; and to increase our knowledge of wild animals for its own sake.

The first of these aims is surely laudable, if we concede that there should be zoos in the first place. But the fact that zoo research contributes to improving conditions in zoos is not a reason for having them. If there were no zoos, there would be no need to improve them.

The second aim, to contribute to human health by providing animal models for human ailments, appears to justify zoos to some extent, but in practice this consideration is not as important as one might think. There are very severe constraints on the experiments that may be conducted on zoo animal. In an article entitled 'A Search for Animal Models at Zoos' , published in *ILAR News* in 1982, Richard Montali and Mitchell Bush drew the following conclusion:

> Despite the great potential of a zoo as a resource for models, there are many limitations and, of necessity, some restrictions for use. There is little opportunity to conduct overly manipulative or invasive research procedures – probably less than would be allowed in clinical research trials involving human being. Many of the species are difficult to work with or are difficult to breed, so that the numbers of animals available for study are limited. In fact, it is safe to say that over the past years, humans have served more as 'animal models' for zoo species than is true of the reverse.

Whether for this reason or others, much of what has been done in using zoo animals as models for humans seems redundant or trivial. For example, the article cited above reports that zoo animals provide good models for studying lead toxicity in humans, since it is common for zoo animals to develop lead poisoning from chewing paint and

inhaling polluted city air. There are available for study plenty of humans who suffer from lead poisoning for the same reasons. That zoos make available some additional non-human subjects for this kind of research seems at best unimportant and worst deplorable.

Finally, there is the goal of obtaining knowledge about animals for its own sake. Knowledge is a certainly something which is good and everything being equal, we should encourage people to seek it for its own sake. But everything is not equal en this case. There is a moral presumption against keeping animals in captivity. This presumption can be overcome only by demonstrating that there are important benefits that must be obtained in this way if they are to be obtained at all. It is clear that this is not the case with knowledge for its own sake. There are other channels for our intellectual curiosity, ones that do not exact such a high moral price. Although our quest for knowledge for its own sake is important, it is not important enough to overcome the moral presumption against keeping animals in captivity.

In assessing the significance of research as a reason for having zoos, it is important to remember that very few zoos do any research at all. Whatever benefits result from zoo research could just as well be obtained by having a few zoos instead of the hundreds which now exist. The most this argument could establish is that we are justified in having a few good zoos. It does not provide a defence of the vast majority of zoos which now exist.

A fourth reason for having zoos is that they preserve species that would otherwise become extinct. As the destruction of habitat accelerates and as breeding programmes become increasing successful, this rationale for zoos gains in popularity. There is some reason for questioning the commitment of zoos to preservation: it can be argued that they continue to remove more animals from the wild than they return. Still, zoo breeding programmes have had some notable successes: without them the Père David Deer, the Mongolian Wild Horse and the European Bison would all now be extinct. Recently, however, some problems have begun to be noticed.

A 1979 study by Katherine Ralls, Krintin Brugger and Jonathan Ballou, which was reported in *Science*, convincingly argues that lack of

genetic diversity among captive animals is a serious problem for zoo breeding programmes. In some species the infant mortality rate among inbred animals is six or seven times that among non-inbred animals. In order species the infant mortality rate among inbred animals is 100 per cent. What is most disturbing is that zoo curators have been largely unaware of the problems cause by inbreeding because adequate breeding and health records have not been kept. It is hard to believe that zoos are serious about their role in preserving endangered species when all too often they do not take even this minimal step.

In addition to these problems, the lack of genetic diversity among captive animals also means that surviving members of endangered species have traits very different from their conspecifics in the wild. This should make us wonder what is really being preserved in zoos. Are captive Mongolian Wild Horse really Mongolian Wild Horses in any but the thinnest biological sense?

There is another problem with zoo breeding programmes: they create many unwanted animals. In some species (lions, tigers and zebras, for example) a few males can service an entire herd. Extra males are unnecessary to the programme and are a financial burden. Some of these animals are sold and wind up in the hands of individuals and institutions which lack proper facilities. Other are shot and killed by Great White Hunters in private hunting camps. In order to avoid these problem, some zoos have been considering proposals to 'recycle' excess animals: a euphemism for killing them and feeling their bodies to other zoo animals. Many people are surprises when they hear of zoos killing animals. They should not be. Zoos have limited capacities. They want to maintain diverse collections. This can be done only by careful management of their 'stock'.

Even if breeding programmed were run in the best possible way, there are limits to what can be done to save endangered species. For many large mammals a breeding herd of at least a hundred animals, half of them born in captivity, is required if they are to survive in zoos. As of 1971 only eight mammal species satisfied these conditions.

Paul and Anne Ehrlich estimate in their book *Extinction* that under the best possible conditions American zoos could preserve only about a

hundred species of mammals – and only at a very high price: maintaining a breeding herd of herbivores cost between $75,000 and $ 250,000 per year.

There are further questions one might ask about preserving endangered species zoo. It is really better to confine a few hapless Mountain Gorillas in a zoo than to permit the species to become extinct? To most environmentalists the answer is obvious: the species must be preserved at all costs. But this smack of sacrificing the lower-case gorilla for the upper-case Gorilla. In doing this, aren't we using animals as mere vehicles for their genes? Aren't we preserving genetic material at the expense of the animals themselves? If it is true that we are inevitably moving towards a world in which Mountain Gorillas can survive only in zoos, then we must ask whether it is really better for them to live to live in artificial environments of our design than not to be born at all.

Even if all of these difficulties are overlooked, the importance of preserving endangered species does not provide much support for the existing system of zoos. Most zoos do very little breeding or breed only species which are not endangered. Many of the major breeding programmes are run in special facilities which have been established for that purpose of zoo-goers. (for example, the Bronx Zoo operates its Rare Animal Survival Center on St Catherine's Island off the coast of Georgia, and the National Zoo runs its Conservation and Research Center in the Shenandoah Valley of Virginia.) If our main concern is to do what we can to preserve endangered species, we should support such large-scale breeding centres rather than conventional zoos, most of which have neither the staff nor the facilities to run successful breeding programmes.

The four reasons for having zoos which I have surveyed carry some weight. But different reasons provide support for different kinds of zoo. Preservation and perhaps research are better carried out in large-scale animal preserves, but these provide few opportunities for amusement and education. Amusement and perhaps education are better provided in urban zoos, but they offer few opportunities for research and preservation. Moreover, whatever benefits are obtained from any kind of zoo must confront the moral presumption against keeping wild

animals in captivity. Which way do the scales tip? There are two further considerations which, in my view, tip the scales against zoos.

First, captivity does not just deny animals liberty but is often detrimental to them in other respect as well. The history of chimpanzees in the zoos of Europe and America is good example.

Chimpanzees first entered the zoo world in about 1640 when a Dutch prince, Frederick Henry of Nassau, obtained one for his castle menagerie. The chimpanzees didn't last very long. In 1835 the London Zoo obtained its first chimpanzees; he died immediately. Another was obtained in 1845; she lived six months. All through the nineteenth and early twentieth centuries zoos obtained chimpanzees who promptly died within nine moths. It wasn't until the 1930s that it was discovered that chimpanzees are extremely vulnerable to human respiratory diseases, and that special steps must be taken to protect them. But for nearly a century zoos removed them from the will and subjected them to almost certain death. Problems remain today. When chimpanzees are taken from the wild the usual procedure is to shoot the mother and kidnap the child. The rule of thumb among trappers is that ten chimpanzees die for every one that is delivered alive to the United States or Europe. On arrival many oh these animals are confined under abysmal conditions.

Chimpanzees are not the only animals to suffer in zoos. In 1974 Peter Batten, former director of the San Jose Zoological Gardens, undertook an exhaustive study of two hundred American zoos. In his book *living Trophies* he documented large numbers of neurotic, overweight animals kept in cramped, cold cells and fed unpalatable synthetic food. Many had deformed feet and appendages caused by unsuitable floor surfaces. Almost every zoo studied had excessive mortality rates, resulting from preventable factors ranging from vandalism to inadequate husbandry practices. Battan's conclusion was: 'The majority of American zoos are badly run, their direction incompetent, and animal husbandry inept and in some cases nonexistent.'

Many of these same conditions and others are documented in *Pathology of Zoo Animals*, a review of necropsies conducted by Lynn Grinner over last fourteen years at the San Diego Zoo. This zoo may

well be the best in the country, and its staff is clearly well-trained and well-intentioned. Yet this study documents widespread malnutrition among zoo animals; high mortality rates from the use of anaesthetics and tranquilizers; serious injuries and deaths sustained in transport; and frequent occurrences of cannibalism, infanticide and fighting almost certainly caused by overcrowded conditions. Although the zoo has learned from its mistakes, it is still unable to keep many wild animals in captivity without killing or injuring them, directly or indirectly. If this is true of the San Diego Zoo, it is certainly true, to an even greater extent, at most other zoos. The second consideration is more difficult to articulate but is, to my mind, even more important. Zoos teach us a false sense of our place in the natural order. The means of confinement mark a difference between humans and animals. They are there at our pleasure, to be used for our purpose. Morality and perhaps our very survival require that we learn to live as one species among many rather than as one species over many. To do this, we must forget what we learn at zoos. Because zoos teach us is false and dangerous, both humans and animals will be better off when they are abolished.