

The Truth about Killing at Zoos

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Zoos have been in the news recently for killing healthy animals. Some zoo people focus on typical prey animals, but want to expand this to all animals in their care, including great apes and dolphins. In this essay, I explain that this fits within the context of zoos struggling to establish viable breeding programs. They want to keep too many species, often not endangered, and face serious breeding problems. One solution is to kill unwanted animals; another would be to keep fewer species. I also outline the risks of this approach for companion animals and animals living in the wild. It turns the clock back decades, if not centuries. At the very least, zoos should keep fewer species in larger enclosures. Even better would be to transform zoos into sanctuaries—places that truly respect animals as individuals and do their utmost for each one. Besides the animals themselves, this issue clearly creates tensions between conservationists and other animal advocates.

European zoos have recently gained international attention due to controversial decisions involving the killing of healthy animals. For example, the Cologne Zoo in Germany killed two healthy lion cubs, saying their mother rejected them (Van Der Linden, 2025). Similarly, the Nuremberg Zoo also made headlines by putting down twelve healthy baboons due to overpopulation issues (Chater, 2025). In Denmark, the Aalborg Zoo invites the public to bring unwanted pets, such as horses, rabbits, and chickens, with the intention of having them "gently euthanized" and fed to predators (Bryant, 2025). These incidents are not isolated; they illustrate a trend among various zoos.

In December 2024, several professionals from the zoo industry, including veterinarians and directors, published an opinion piece in the *Proceedings of the National Academy of Sciences* (PNAS). They made a plea for the breeding and killing of young, healthy

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animals in zoos, arguing that it serves the purposes of conservation and education (Clauss et al., 2024). They are not alone in this view, as the European Association of Zoos and Aquaria (EAZA) supports a breed-to-kill policy, citing the necessity of maintaining genetic diversity and ensuring parental welfare (EAZA, 2019). The authors of the PNAS article advocate for applying their breed-to-kill perspective to all kinds of animals, including great apes and dolphins. Additionally, they express support for trophy hunting in the name of conservation.

Zoos are facing a steep slippery slope. They seem to be attempting to reverse progress in animal welfare under the guise of Science, Conservation, and Education. Here, I will provide context for their views and highlight the consequences of their ethical positions. Ultimately, I believe that the primary motivation behind this trend is the self-preservation of the zoos themselves. This presents a bleak future for both captive and wild animals. This policy is likely to reinforce the views of those who wish to shut down zoos and alienate many supporters who appreciate the efforts of organized zoos to create enriched environments for the animals in their care.

A Better World for Animals

Over the past fifty years, attitudes toward animals have undergone significant changes. Any cruelty similar to Harry Harlow psychologically destroying baby monkeys in the name of Science nowadays faces strong opposition, thanks to animal advocacy organizations. It is now widely accepted to view animals as sentient beings – individuals with rich emotional lives, strong social bonds, and the ability to make intelligent decisions.

Jane Goodall blazed the trail with her groundbreaking studies of chimpanzees in the wild, and many other scientists have contributed to this understanding. Notable figures include George Schaller, Frans de Waal, Jaak Panksepp, Marc Bekoff, Irene Pepperberg, Iain Douglas-Hamilton, and Bernd Heinrich.

Philosophers have also carefully examined our relationship with animals, leading to a flourishing field of animal ethics, thanks to the work of thinkers like Peter Singer, Tom Regan, Dale Jamieson, Lori Gruen, and others. Moreover, animal welfare legislation has been enacted, largely due to the efforts of advocacy groups such as the Born Free Foundation, PETA, and World Animal Protection.

People care about animals as individuals. Consider Fifi the chimpanzee, Cecil the lion, Binti Jua the gorilla, Hachiko the dog, Alex the parrot, and Hvaldimir the beluga. Individuals often form strong bonds with various animals they care for – such as dogs, cats, and horses, as well as chickens, rats and mice. Many young people today do not associate vegetarianism, veganism, or animal rights with extremism; instead, they connect these concepts to animal welfare, combating climate change, and expanding human rights. A survey published by the World Economic Forum and Our World in Data in 2022 reveals that around 50% of Brits aged 18 to 24 do not identify with a meat-eating diet (Mathieu & Ritchie, 2022). There is a growing sensitivity toward animals and their welfare, which increases pressure on those who use them. Scientific and ethical

insights indicate that the line between humans and other animals is fundamentally blurred. As a result, ethical values are shifting in favor of more respectful attitudes towards animals. The last few decades have witnessed unprecedented advancements in animal welfare legislation, marking a praiseworthy evolution (see for example Bekoff, 2008 and de Waal, 2020).

Some zoos are opposing this trend by advocating for breed-to-kill policies, asserting that such practices can be morally acceptable. What arguments do they present in support of this stance?

Limited Space on the Ark

One justification given to kill zoo animals is that space on the Zoo Ark is limited. The concept of the Zoo Ark is to maintain endangered species until they can be reintroduced into the wild. Breeding programs aim to prevent inbreeding and maintain maximum genetic variability, allowing species to be sustainably kept in captivity for many years. Inbreeding leads to lower birth rates, higher mortality rates, and various other negative effects. The goal is to retain 90% or more of the genetic diversity over a span of 100 years, which requires a population size of at least 200-300 individuals.

However, the Zoo Ark is in trouble. The authors of the PNAS study referenced a recent viability assessment of 137 species maintained in North American zoos, which was published in *Zoo Biology*. Under the current management practices, it is predicted that 64% of these populations will decline over the next 25 years, and 72% of the 122 programs that could be evaluated will retain less than 90% of their genetic diversity after 100 years. Inbreeding levels are expected to exceed those found between half-siblings. The situation is even more concerning, as more realistic projections indicate that 82% of the populations will retain less than 90% of their genetic diversity and an average inbreeding level comparable to that resulting from mating between full siblings. This latter scenario considers the logistical and legal constraints associated with transferring new animals, referred to as the closed baseline scenario (applicable to 113 programs) (Che-Castaldo et al., 2019).

To address these challenges, the primary recommendation is to increase population sizes by enhancing reproductive efforts. Other suggestions include expanding living spaces and importing new founder animals – genetically unique individuals from the private sector, zoos in other regions, or the wild. Alternatively, zoos could consider reducing the total number of species they house (ibidem).

This situation is not surprising; similar concerns of many zoo populations being very small and having low genetic diversity were raised over the years for American and European populations. Anne Baker, from The Toledo Zoo in Ohio, pointed out that part of the issue lies with zoos failing to make choices. They tend to want to retain too many species. For instance, Baker highlights that zoos maintain breeding programs for as many as ten guenon species, each having alarmingly low populations—often not exceeding 80 individuals (Baker, 2007).

The problem is exacerbated by the Zoo Ark's limited numbers of threatened species. A notable example is the case of the young and healthy giraffe Marius, who was killed in Denmark. At that time, his species *Giraffa camelopardalis* was classified as Least Concern by the IUCN. Meanwhile, the guinea baboons (*Papio papio*) who were killed at Nuremberg Zoo are classified as Near Threatened.



A giraffe at the Maryland Zoo in Baltimore, USA (Bridget Laudien / We Animals)

A comprehensive survey conducted among 725 zoos by researchers from Chester Zoo and Oxford University revealed that 72 percent of respondents reported that fewer than 30 percent of the species in their care were listed as threatened by the IUCN (Zimmermann and Wilkinson, 2007). Zoos particularly struggle to maintain the viability of captive populations of species that are endangered in the wild. It has been suggested that species with a lower conservation status may be easier to breed or import. Consequently, the *Zoo Biology* study confirms that "less threatened species tend to be in high demand by zoos" (Che-Castaldo et al., 2019). The belief that the Zoo Ark is filled with endangered species is, in fact, a myth. And even when a species is endangered, the need for a captive breeding program is highly questionable, as for example conservationist George Schaller made crystal-clear for giant pandas (Schaller, 1993).

This puts the breed-to-kill policy in a new perspective. Zoos are struggling to build viable breeding programs and desperately need to expand the size of captive populations. This is about their own survival. They are keen to produce more offspring and to get rid of any unwanted animals – those that are past breeding age or that are already genetically well-represented. As genetic variation is lost with each generation in small populations, it has been suggested to expand the generation time (Tudge, 1991). In other words, a tiger is allowed to have multiple litters – several of these are killed and zoos continue with the last one, so that the interval between each generation is prolonged.

This situation highlights the simplistic view of zoos as mere collections of species. Zoos often aim to house too many species, which jeopardizes their own sustainability. In their self-interest, they should focus on maintaining fewer species with larger populations. However, it seems that finding this balance remains a longstanding challenge for zoos, even after years of captive breeding programs.

This situation also leads to immediate welfare concerns for the animals involved. Having more species means less space and smaller groups for each species. I remember seeing a teenage chimpanzee at Karlsruhe Zoo who was separated from her group due to conflicts. Because there was only one outdoor enclosure available, she was placed behind the scenes in a small enclosure of just a few square meters. The curator who showed me around tried to reassure me that this was a temporary arrangement. However, having more adequate facilities with multiple outdoor enclosures and social groups would have easily prevented such a poor welfare situation.

There are some notable examples of successful reintroductions facilitated by captive breeding, such as the Arabian oryx and the California condor. However, let's be honest: these cases are rare exceptions rather than the norm. Most species are not kept in zoos because they require carefully managed breeding programs for potential reintroduction into the wild. If that were the case, we would see mountain gorillas in captivity instead of bottlenose dolphins. The concept of the Zoo Ark is fundamentally flawed, and the animals within it suffer because zoos attempt to keep too many species (see also Margodt, 2000 and Margodt, 2010).

Parental welfare

Killing animals in zoos is often justified by citing the welfare interests of the parents. Breeding and raising young ones is a natural behavior that enriches the social dynamics of the group. While some of the young animals may be kept, others are put down in a painless manner.

Over the years, I've had several discussions on this topic with Jane Goodall. She supports limited breeding, especially for highly social animals like chimpanzees, as a way to enhance the lives of animals in zoos. If zoos wish to continue breeding, it would be better to focus on fewer species and provide more naturalistic living environments. Implementing birth control is a straightforward solution to prevent the killing of young and healthy animals, which also disturbs the public. Overpopulation and the killing of the lion cubs at Cologne Zoo and baboons at Nuremberg Zoo could be easily avoided.



A lion cub, similar to the ones killed at Cologne Zoo (Mehgan Murphy, Smithsonian's National Zoo)

Zoos pleading for a breed-to-kill policy are traveling on an extremely slippery slope. As a visitor, one could easily take inspiration from this. For example, I could allow my Labrador, Leila, to have a litter of puppies. She would enjoy the company of her pups, and this experience would enrich all our lives. If I find it difficult to find new homes for some of the puppies, I would consider taking them to the vet to be 'humanely killed, similar to how zoos handle 'surplus' animals.

When summer holidays come around, we might ask our vet to put Leila down, or we could take her and her puppies to the zoo so they can be fed to predators. After the summer break, we would adopt another dog, following the cycle we learned about in the zoo, and start over again.

On a structural level, this approach could alleviate the burden on animal shelters that struggle to find homes for dogs, cats, and other companion animals. In a moment, it will become clear that going to your own vet would be more humane than what might happen to Leila and her young ones in a zoo setting.

Just to clarify, I consider Leila a family member and would never ever let her be put down unless it was in her best interest, such as in cases of irreversible illness or interminable suffering. I wonder if people who kill healthy animals in zoos would do the same with their companion dog or cat.

Factory farming as a Benchmark

Lions, tigers, and other predators in zoos need to be fed. Rather than using animals that had extremely poor lives on factory farms, zoos can kill animals that had a better life, more space, variety, enrichment, and social companions. Also, the animals are said to be put down humanely, rather than being chased and killed by a predator in the wild. What could possibly be wrong with this?

Factory farms are not only an atrocity from an animal welfare perspective. Wild mammals and birds only count for respectively 4% and 30% of all mammals and birds in the world. 60% of mammals and 70% of birds are bred for livestock purposes (Bar-On et

al., 2018). Anyone who wants to conserve biodiversity needs to call for plant-based diets. One of the easiest steps to help our planet is shifting to a plant-based diet, which are also better for our health (Goodall & Margodt, 2024). What educational role are zoos fulfilling here, if any?

It is not evident to justify the killing of other sentient beings. Unlike animals living in the wild, we can shift towards alternatives that avoid suffering and killing. Therefore, it is commendable to search for plant-based alternatives, including for companion animals. Research by Andrew Knight, a veterinary professor of animal welfare, indicates that dogs and cats fed vegan diets are healthier than those fed meat-based diets. There are over a billion dogs and cats kept as companion animals and the pet food industry is a growing billion dollar industry. Therefore, shifting towards a plant-based diet for dogs and cats is a win for our companion friends, their conspecifics suffering in factory farms and the planet (Knight et al., 2023 and Knight et al., 2024).

Zoos should explore alternative methods for feeding the animals in their care, ensuring that these methods are healthy and respect the welfare of all animals involved. This may be challenging, alone already given the number of species kept in zoos. Apart from the nutritional value of the food, there is also the enrichment aspect to consider. And the very few species that ever will be reintroduced into the wild, will need to learn various skills again before release, including hunting for prey, though obviously not within the limitations of a zoo enclosure.

Zoos should not be supporting factory farms and have every reason to oppose these. Moreover, they need to respect all animals in their care. If no alternatives can be found, zoos better cease the keeping of predators, especially if these are not endangered and pose challenges when kept in captivity. The last point is particularly true for species that naturally roam large distances in the wild, such as polar bears, lions, dolphins and elephants (Clubb & Mason, 2003).

Educating the Public

The authors of the PNAS opinion article want zoos to embrace killing not only for reasons of conservation, but also for educational reasons. Thus, they enter a remarkably highly debatable educational mission.

Our society has a mixed attitude toward animals. In many countries, we cherish dogs and cats, yet we have no qualms about breeding and eating pigs and cows. Over the past few decades, animal advocates have made significant strides in promoting respect for the interests of various animals, including pigs, cows, chickens, rats, and octopuses. However, some zoos are now moving in a troubling direction. They aim to normalize the breeding and killing of a wide range of animals, including giraffes, antelopes, dolphins, lions, bears, baboons, and great apes.

This issue extends beyond just zoo animals. Instead of launching campaigns encouraging everyone to take full responsibility for the animals in their care, some zoos propose that unwanted companion animals be brought to them so they can be fed to

predators. This concept reduces 'surplus animals' to merely those who humans no longer want and minimizes animals to disposable items, tossed away when no longer wanted, like a child's toy.

The attitude by these zoos is reminiscent of Cartesian times, where animals were seen merely as resources for human use. Once again, humans place themselves above all non-human animals, from spiders to chimpanzees, and justify breeding them for the purpose of taking their lives. This ethical perspective extends far beyond just the killing of animals to feed those in zoos; it serves as an excuse to revive old-fashioned anthropocentrism and its associated attitudes.

Some believe that zoos have an important educational mission. I agree that it is important to connect with living animals to respect them. However, these could be dogs, chickens, rats or simply observing birds in a park or other animals in your neighborhood. Even children can easily transpose this feeling of connection towards other species, such as elephants, dolphins, or baboons. They don't need a zoo visit to see that all are sentient beings; a Netflix documentary suffices. Moreover, where does children's fascination with dinosaurs come from?

Even many people who are supportive of education in zoos, because of connecting with living animals, have deep concerns about the call by zoos to embrace a breed-to-kill policy. What feelings does it raise in children, if they participate in a naming contest for lion cubs, only to learn a bit later that their beloved Simba has been put down? Wasn't it traumatizing for sensitive children and others to see the cutting to pieces of the giraffe Marius? As far as zoo visitors need education at all, they certainly don't need to be educated about an anthropocentric Us versus Them logic.

Euthanasia, Culling and Killing

Zoos use the euthanasia terminology because they want to make their killing actions sound acceptable. It sounds like a justified act – euthanasia, culling or putting to sleep sounds different than killing. It sounds humane, but is it?

The baboons in Nuremberg zoo were apparently moved away in individual crates and shot one after the other. Aalborg Zoo invites the general public to bring their unwanted pets, who will be 'gently euthanized' and fed to the predators. It is not explained how precisely these animals are killed. I've spoken with a zoo veterinarian who left a Swedish zoo not so long ago. He could no longer stand the killing of zoo and companion animals. Every week, horses are brought by private people to the zoo. He explains that large cats are very sensitive to certain commonly used anesthesia products. Therefore, it is not an option to use anesthesia before killing their prey, as would be done by any veterinarian putting down old and terminally ill companion animals. Instead, the horses receive an analgetic, a bolt is shot in their head, and they are left to bleed.



Horse hooves hanging from hooks, a meal for the carnivores at a zoo in Denmark (Jo-Anne McArthur / Born Free Foundation / We Animals)

These are not humane ways of ending the lives of companion and zoo animals or any animals. At the very least, zoos should be fully transparent about the methods they use and how many animals they kill every year. They should allow the public to be informed on these practices and then make their own decision about whether or not to visit a zoo.

The concept of euthanasia, as used by zoo personnel, is fundamentally problematic. It is important to understand that euthanasia typically refers to "voluntary euthanasia," which is a deliberate and ongoing request made by a competent individual to end their own life. There are also other notions, such as "non-voluntary euthanasia," where a person is unable to make a decision due to lack of competence and has not previously expressed their wishes. Additionally, "involuntary euthanasia" refers to the act of ending a person's life against their explicit wishes. In all of these cases, the primary intent is to alleviate suffering (Young, 2024).

If one would use the notion of euthanasia for non-human animals, at the very least it should be in their interest to be killed, due to unavoidable suffering, and under full anesthesia. Purposefully breeding young and healthy animals in order to drive a bolt into their brains or to shoot them with a bullet is not meeting these criteria. Their deaths could easily be prevented if zoos truly value the lives of these individual animals, rather than using them as mere commodities for their own goals. Marc Bekoff coined the notion of 'zoothanasia' to highlight the killing of healthy animals by zoos and to distinguish this from 'mercy killing' when an individual is interminably ill (Bekoff, 2012). It combines the benefits of not sugarcoating reprehensible acts with avoiding a notion that is already complex enough in the human sphere alone.

Full Transparency

Besides using correct language, zoos should be fully transparent in the interest of the animals in their care, both for their welfare and for the general public. They need to clearly share information about how they manage animal deaths, including the methods used and the number of animals involved. Additionally, they should publish details about the species they house and their IUCN conservation status. Currently, organizations like EAZA only provide this information for animals under their European Ex Site Programs (EEPs, formerly European Endangered Species Programs), which can present a skewed view of their practices. Furthermore, zoos should disclose the life histories of the animals in their care, including their place of origin, the locations where they have been housed throughout their lives, and their final destination.

During lectures, I explain that as a general rule of thumb lack of transparency goes hand in hand with animal exploitation. You only hide what you don't want others to know, as examples confirm time and again for laboratories, factory farms, circuses and zoos.

Great Apes are like Us

Humans are great apes. We are closely related to chimpanzees and share over 98% of our genetic material. Great apes have rich emotional lives, unique personalities and show remarkable intelligence. Fortunately, using great apes for biomedical experiments has come to an end due to ethical reasons and because organizations like the NIH (National Institutes of Health, USA) could no longer see any justification to keep them for biomedical research (Milman, 2015). Ethologists, other ethicists and I argue that we should fully respect their individual interests. This doesn't conflict at all with species conservation, quite on the contrary, it offers a firm foundation for protecting great apes in the wild.

When I visited the Jane Goodall Institute's sanctuary in the Republic of the Congo, they were caring for over a hundred chimpanzees, mainly survivors of the bushmeat trade. One of them, Grégoire (1942 – 2008), came from Brazzaville zoo, where he had been living in a rusty cage since the 1940s. Grégoire was a most gentle chimpanzee and National Geographic shared pictures of Grégoire grooming Jane Goodall. She offered him a new life and I noticed how he enjoyed his days at Tchimpounga. He could choose whether to be outdoor or indoors, had the company of a few other chimpanzees and would put a blanket over his shoulders to cover his frail body. He was well respected by the chimpanzee teenagers in the adjacent enclosure, who would come to Grégoire when tension was running high. He would reassure one after the other.

Those supporting a killing policy in zoos want to move step by step towards all animals in their care: "Culling practices may face more opposition for certain animal groups (e.g., great apes or cetaceans; ref. 12), so to facilitate education best, we suggest that zoos should begin with species whose deaths have public acceptance, such as typical prey species. In the long-term, however, planned mortality may be the most appropriate management tool in any animal species." (Clauss et al., 2024)



Mother chimpanzee Jane looks down at her breastfeeding infant at in zoo in Turkey (Deniz Tapkan Cengiz / We Animals)

Challenge yourself, according to what criteria may we breed and kill chimpanzees but not humans? Where is the logical, rational case for human superiority? It is no accident that many ethicists, ethologists and others state that the line between humans and other animals is fundamentally blurred.

The authors of the PNAS article do not want a population of old animals. They want animals who are reproducing and having young ones: "We don't want a collection of geriatric animals and veterinarians preoccupied with palliative care." (Clauss et al., 2024). Grégoire probably wouldn't have lasted much longer if these zoo people had to decide about his future. To be fair, there are zoos that take pride in caring for older great apes (like the chimpanzee Mama at Arnhem Zoo), but the tide may be changing (anonymous, 2016).

After the shooting of baboons at Nuremberg Zoo, director Dag Encke said that space was getting tight for other animals too, including the gorillas. However, he added that he wouldn't be able to handle the killing of gorillas emotionally, even though it would be unprofessional and inconsistent (anonymous, 2025). In 2023, the Jane Goodall Institute and others were indignant about the killing of an orang-utan baby at Basel Zoo, after her mother passed away (Goodall et al., 2023). Now it becomes clear why they did not consider sending the baby to a sanctuary, such as the Center for Great Apes in the USA.

Sustainable Use

For many decades, major conservation organizations and others have advocated for sustainable use of natural resources. The concept involves managing species so that we can harvest individuals, provided that the overall population is maintained sustainably.

The idea of whaling fits within this view – killing a few hundred whales each year is fine according to supporters, as long as the quorum that guarantees sustainable species conservation is not exceeded. It has also been suggested to harvest elephants for their ivory, meat and hides. It has been suggested to use natural reserves as resources for extracting animals for zoos. This way new genes are brought into the captive zoo population. A Dutch zoo zoologist once suggested breeding and killing tigers, so that their parts could supply the demand in Chinese markets. This way, animals can bring in much-needed conservation dollars (see Margodt, 2000 and Margodt, 2010).

Why not allow trophy hunting and use the profit for conservation? Remember the famous cases of Cecil the lion and more recently Blondie. The authors of the PNAS zoo article make exactly this point, suggesting that trophy hunting plays an important conservation role (better to have hunting grounds than agriculture) and that the Global North shouldn't impose their values on the Global South (Clauss et al., 2024). How long will it take before you can eat sustainable ape meat in a zoo restaurant and purchase an elephant foot in the zoo shop for your umbrella, or impress others with a massive gorilla hand on your desk?

The Future

The zoo breed-to-kill view thus stretches way beyond the killing of animals in zoos. The need to feed predators is used as a Trojan horse to undertake an anthropocentric reset of our relationships with animals, including zoo animals, companion animals, and animals in the wild. Zoos attempt to turn the clock back many decades, if not centuries, in order to sustain themselves. Their implicit core message is that animals are ours to use. No animals are safe in this breed-to-kill policy, including those who have remarkable similarities with us in terms of mental complexity, such as great apes and dolphins. Zoos thus consciously enter an alarming ethical slippery slope that normalizes the breeding and killing of young and healthy animals under the excuse of feeding predators and the misleading disguise of euthanasia.

What can we do about this situation? First and foremost, any zoos that oppose a breed-to-kill policy should clearly express their disagreement. The same applies to researchers and other staff members working in zoos. Zoos and their personnel need to break the silence and take a stand—they must stop being neutral on this issue.

Consider a scenario where a sanctuary hires a veterinarian, manager, caregiver, or ethologist who has been involved in breeding and killing similar animals in zoos. Additionally, think about the implications of animals transitioning from a sanctuary or the wild to a zoo that implements a breed-to-kill policy.

Zoos must prioritize transparency regarding their values and policies. This includes providing information on all species in their care and the IUCN status of each species. They should also make the life history of the animals publicly accessible. Zoos store this data already in software databases that track where each animal was born, the locations to which they have been sent, and details about when and why they passed

away. Transparency not only fosters accountability but also drives improvements in animal welfare.

Thirdly, zoos must clearly communicate their commitments to fulfilling their missions. Their goals related to conservation and education will be more achievable with a focus on fewer species, more space and limited breeding. There is no justification for breeding animals only to kill them. Alternatives should be sought, and if none are available, then those species should not be housed in zoos.

Fourthly, animal advocacy organizations and zoos should enter into a constructive dialogue, especially those who believe that a wide coalition is needed to help animals in the wild and captivity. I must admit that I'm skeptical. The topic is a very sensitive one. I easily see any critical voices towards zoos being dismissed as animal rights advocates. It's more convenient to avoid a conversation and to stay with the safety of black-and-white clichés – animal welfare versus animal rights, rationality versus emotionality, moderation versus extremism. But at both sides of the fence, pragmatic voices may be willing to talk and find common ground in the interest of animals. The issue is polemic, but above all dialogue is the best way forward.

Simultaneously, animal advocacy organizations need to hold zoos morally accountable. People need to take 100% responsibility for the animals in their care. Animal advocacy organizations and zoos, if not zoo associations like EAZA, need to enter mutual agreements where they distance themselves from breed-to-kill policies, as major zoos in Belgium have done with the leading animal advocacy organization GAIA (Global Action in the Interest of Animals). With the support of the general public, they need to influence policy makers so that such a breed-to-kill policy becomes illegal. Existing legislation may help certain species, like great apes, more easily than others. Such legislation needs to be expanded, both geographically and across species borders.

I've argued elsewhere that zoos should be converted into sanctuaries – these are places that only keep animals when this is in the individual interests of the animals themselves. Let's hope that one day zoos will become places that truly care for animals as individuals. Places that call visitors to shift to plant-based diets due to the horrific cruelty of factory farms, their impact on climate change, and our health. Places that speak out against whaling, trophy hunting, and wildlife trade. Places that encourage visitors to engage with animals and inspire them to provide excellent, lifelong care to companion animals. Places that help to steer our moral compass in the direction of more harmonious human-animal relationships and compassionate conservation. Because, in the words of Jane Goodall, "every individual matters; every individual has a role to play".

Afterword

This topic sends waves through the animal advocacy community. I've had several conversations with friends. Some of them see it as a confirmation that zoos need to close. How can such zoos ever be part of a community of people who truly respect animals as sentient beings, with many interests similar to ours? Others are concerned

about how this will impact fruitful collaboration. One of them, Jane Goodall, has always called for a wide coalition of animal advocates. She writes to me that many people have told her that contact with animals in leading zoos have inspired them to help wildlife. That leading zoos help conservation by training wildlife veterinarians and raising conservation funds. She firmly opposes any breed-to-kill policy, or the asking for companion animals to feed zoo animals. We do not agree on everything, but I agree with her that the topic is complex – many animals face dire situations in the wild, some animals have positive lives in captivity, including animals in sanctuaries and some zoos. Simultaneously, some of the best lives may be in the wild (e.g. the Gombe chimpanzees), whereas some of the worst may be in captivity (e.g. bear bile farms). Finally, we both strongly agree that dialogue and collaboration, no matter how challenging, is in the best interest of all animals involved.

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