

# ETHICAL CONSIDERATIONS IN ELEPHANT MANAGEMENT

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## PURPOSE OF THE CHAPTER

**T**HE FATE of the half a million or so free-ranging elephants in Africa depends on the choices people will make. What 'moral standing' do elephants deserve, and thus what constraints should we impose on our behaviour towards them? These are ethical questions. In general terms, ethics tells us what is good and bad behaviour, which human actions are right or wrong. Usually theories of ethics indicate a range of moral duties we owe to human beings; either generally or to those with whom we have specific relationships. In some cases our ethics also alerts us to duties we have towards non-human living beings or things. Thus, in our ethical theories we attempt to indicate to what extent we should restrain our actions so as to avoid negative impacts on other humans and living beings as well. We also consider what duties or actions we have to perform that will be beneficial and helpful to other people or species.

To assess the state of our knowledge about ethics and elephants is no easy affair. Different views on the moral standing of elephants and thus the obligations humans owe elephants, are not really a matter of scientific knowledge, although such knowledge might deeply influence our chosen ethics. At stake are human value choices that are developed through argument and discussion into ethical positions that suggest, prescribe, or legislate acceptable behaviour, and proscribe or discourage unacceptable treatment of elephants. The point of this assessment is thus to determine which ethical positions have been developed on various matters concerning the management of elephants and have been justified through reasoning. In open societies the diversity of views that arise about controversial moral issues generates intense debate. Since the early 1990s, world views that were once silent or repressed in South Africa have gained ascendancy and voice. These world views need careful consideration to determine from which to choose our ethical values.

This chapter portrays the different ethical views relevant to the management of elephants that are present in some or other form in the public domain.

In some cases ethical views can be found in detailed academic reports, in other cases ethical views will be reconstructed from other sources, like presentations at public meetings, official documents, and research reports. The emphasis will be on showing the strengths and weaknesses of each view. The aim is to make readers aware of the multiplicity of ethical issues involved in elephant management, as seen from a variety of ethical viewpoints. The complexity of the benefits and harm that accompany different management options will be clarified. The readers as citizens must make up their own minds on the ethical considerations they judge appropriate for the management and care for elephants.

The chapter is divided into five sections: (1) our human responsibility towards elephants, (2) the accountability of elephant custodians, (3) the moral standing of elephants, (4) ethical theories, and (5) ethics and management options.

## **HUMAN RESPONSIBILITY FOR ELEPHANTS**

### **Why decisions about elephants cannot responsibly be avoided**

Whatever choice wildlife managers make when determining how humans treat elephant populations, has consequences that cannot be ignored in any way. Consequences of decisions about the management of elephants affect the lives of thousands of animals, plants, all other living species, human visitors, and concerned supporters of conservation areas (see Mosugelo *et al.*, 2002, 235, 237, 238; Mapaire & Campbell, 2002, 216).

Refusing to take a decision on the issue of limiting elephant numbers regardless of the consequences for other living organisms implies taking sides; it implies a choice to let nature be; a preference to let matters develop without any human intervention. By doing nothing, wildlife managers are actually making a choice with observable consequences for which they ought to be held accountable to the same extent as for any other conscious, deliberate choice. For this reason a 'consequentialist' ethical approach – which gives priority to consequences of action and inaction – is appropriate.

Can decisions responsibly be avoided because of a lack of knowledge? In general, no, because although responsible decisions must be informed by the best available knowledge, humans mostly make decisions without the security of perfect knowledge. Characteristically, humans act in the light of available knowledge and that makes our actions fallible and revisable. What we have done today might be judged wrong tomorrow in the light of new knowledge and

fresh insight. How well-meaning conservationists managed elephants yesterday is not good enough for today and tomorrow, as scientific understanding and ethical insight have progressed by leaps and bounds in the last three decades. Neither is our current state of knowledge a valid basis for making judgements on the ethical value of decisions taken in the past.

If responsibility requires us to make decisions in the light of currently available but incomplete knowledge, is precautionary action ethically acceptable? Precautionary action means that we act to prevent serious or irreversible harm from occurring despite large uncertainties about the likelihood of such harm actually taking place (and in some interpretations, largely *because* uncertainty about future outcomes is high). Precautionary action cannot be ethically acceptable if no evidence can be presented that points to such potential harm. However, precautionary action based on the best and latest knowledge available, that took account of all scientific sides to a debate, that investigated all possible concerns, and that weighed the possible consequences of inaction against those of the various forms of action that could be taken, must surely stand a good chance of being judged ethically responsible.

### **We have a much greater ethical responsibility towards elephants now**

Why is our ethical responsibility towards elephants much greater today than a few centuries ago? One possible answer can be developed along the following lines. For many centuries humans were more prey than predator and could easily be threatened and harmed by elephants; our only defences were bow and arrows, spears, stones, fire, and holes dug in the ground. When humans had only primitive weapons, elephants might easily have had the upper hand. With the mastery of fire and the availability of metals, the power relation started shifting in our favour. Nevertheless, a more-or-less equal relationship existed for most of our shared history.

Our ever-increasing knowledge of the world and our sophisticated technologies have now made it possible for us to interfere with elephant lives on a scale unimaginable in the past. We can now control elephant lives through chemicals to immobilise them and practise birth control, kill them instantly with a range of weapons, restrict their movements by using elephant-proof fences, round them up and transport them with automobiles and helicopters, and track their movements by using satellites.

In the past 50 years humans have investigated elephants in depth. As a result our knowledge about the ecology, physiology, behaviour, social structure, communication, and mental characteristics of elephants has deepened our

perception and understanding of elephants (see Douglas-Hamilton, 1975; Moss, 1988; 1992; and Payne, 1998). We therefore need a new ethics as our newly acquired knowledge about elephants requires a redefinition of our relationship with animals that are more like us than we previously realised.

Our new knowledge of elephants has increased our ability to exercise almost absolute power over them. Not only can we now effectively manage elephants in conservation areas according to standards we decide on, but we have also developed and refined various techniques of taming and training elephants. We are the dominant species on earth. The massive increase in the human population has reduced the land available to elephants to a fraction of their former range. Not only have we conquered their land, but we have also reduced their numbers through killing them. We thus need ethics that reflect our status as the most powerful species this planet has ever had.

## **Why ethical decisions about elephants are so controversial**

Why do we have persistent moral disagreements about some issues? What is the nature of the moral dilemmas that human interaction with elephants generates? Why do ethical issues about the management of elephants lead to such strong disagreement?

In their seminal work on how to deal with moral conflict in what they define as 'deliberative democracy', Amy Gutmann and Dennis Thompson (1996) explain persistent moral disagreements as a result of four factors that occur in all human societies.

### **Incomplete understanding**

A lack of in-depth knowledge or detailed understanding of the issue under investigation results in different people judging different ethical values applicable.

The debate on the culling of elephants is affected by our incomplete understanding of the dynamics of elephants in the African savanna ecosystem. What level of elephant impact on vegetation is 'normal'? What degree of vegetation change is acceptable in the savanna ecosystems? What are the effects of fires, other browsers and artificially provided water, compared to the impact of elephants? What kept elephant numbers stable throughout the greater part of their history? Our understanding of the role of elephants in ecosystems is fragmented and incomplete at best.

### **Moderate scarcity**

The goods judged as valuable by living beings are those not available in sufficient quantities to ensure that every living being can comfortably get as much as they need or prefer. For this reason we will always debate appropriate ways of distributing valuable goods, dividing scarce resources, assigning precious opportunities, or of recognising merit, strength, and beauty. Land available to elephants has shrunk dramatically over the past century. In many parts of Africa elephants now compete for land with farmers and with other animals in fenced-off, or otherwise clearly demarcated conservation areas. Many managers of conservation areas report an overpopulation of elephants that apparently have too much of an impact on the quality of the habitat available to other living beings. Whether such reports are accurate is not the issue here, but the fact that many knowledgeable people observe the lack of sufficient resources for not only growing numbers of wildlife but also burgeoning human populations.

### **Limited generosity**

Human beings are not renowned for being altruistic in nature. The interests of our selves or our group often make us partial. In the process we often deny others things, opportunities, and recognition they ought to be able to rightfully claim from us. Why should humans be generous to elephants and allow them large tracts of land where humans could have made productive livelihoods? Why not use elephants as resources to combat poverty and create jobs for the unemployed? Should some elephants not sacrifice their lives to ensure the long-term survival of their own species and others? Why should we not judge elephants as part of the natural resources of Africa that will help us provide a better life for every human involved? How can we justify safeguarding elephant lives and caring for elephant well-being if human lives are wasted through devastating poverty? Many would argue that our generosity towards higher mammalian species only goes as far as first taking care of human well-being allows us.

### **Incompatible values**

The incompatibility between the directives of some of our ethical values forms the fourth factor that creates persistent moral disagreement. We are not always clear on how to specify a particular ethical value, nor are we confident about its exact range or scope. If we balance competing values differently or assign

varying strengths to them we can get conflicting outcomes. The end result is disagreement about complex ethical issues, regardless of a possible consensus about the fundamental ethical values involved.

Incompatible values that give rise to moral dilemmas present some of the most difficult ethical issues to resolve. A moral dilemma occurs when one ethical value emphasises safeguarding certain interests, while other ethical values point in a different direction. The correct solution depends on which ethical perspective you adopt. Sometimes several prescribed actions appear acceptable, and in other cases none seem palatable. When this kind of conflict between ethical values with contrasting prescriptions occurs in the context of non-ideal conditions, moral disagreement appears almost insoluble.

The unfortunate characteristic of moral dilemmas is that they seem to require that we sacrifice one or more aspects of our ethical values and their supporting arguments and evidence. This loss appears unacceptable to people strongly committed to their set of ethical values. The clash between an individualist perspective, that values the life of every animal affected, and the ecosystem perspective, that is willing to sacrifice individual lives for the sake of the well-being of other elements within the complex interactive web of life, is a good example of such incompatible values.

## **We are responsible for the environment because of our impact**

Humans have had an exponentially increasing impact on the earth's environment and its inhabitants. The acceleration of our exploitation of wildlife throughout the nineteenth and twentieth centuries, our increased occupation of land through our rapidly growing numbers, and our destruction of the environment through pollution, deforestation and global warming are major factors depriving wildlife of places where nature can function without significant human influence.

In South Africa, space for those species of wildlife that cannot easily co-exist with humans is no longer available outside conservation areas. Protected areas have become the sanctuaries of wildlife. They are artificial human constructions that represent small dots and islands in the cultivated and inhabited areas on the maps of Africa (see Chadwick, 1992, 40). Whether we can still speak of 'natural processes' in Africa's small areas of land available for conservation is a decisive factor in debates about elephants, but as yet not well enough understood.

Human impact also occurs inside conservation areas. They are heavily influenced by human settlements surrounding them, even in some of the supposedly most natural conservation areas without any fences, like Chobe

National Park in northern Botswana (see Cumming & Cumming, 2003, 566). For example, rivers running through conservation areas are used and polluted by humans where those rivers flow through their agricultural land or urban areas before these rivers enter conservation areas (Whyte, 2001, 9).

In a situation of massive human influence, letting 'nature take its course' does not imply no further action. Humans have already massively interfered with nature and must take responsibility for this interference. We thus ought to interfere responsibly to conserve as natural a state as possible for future generations. 'Letting nature take its course' in this situation implies doing research to address the problems created by humans. In such cases human intervention keeps nature on track. Malevolent human interference in nature has become so prevalent that humans must now interfere benevolently so as to 'let nature be' (see Lötter, 2005).

## **THE ACCOUNTABILITY OF CUSTODIANS TO STAKEHOLDERS**

Protected areas exist and operate within the framework of a political system and its associated constitution and laws. Governments have agencies and bureaucracies charged with the management, development, and extension of such areas. To have conservation areas properly managed and protected, to increase the number of habitats, landscapes, and ecosystems to be preserved, and to ensure appropriate conservation policies, require political action to lobby, pressurise, and influence governmental policy makers. To do so successfully, conservation areas and game reserves must have some value for citizens (Regenstein, 1985, 132).

### **Governance and accountability**

The South African government has formally accepted full responsibility as trustee to ensure the management and conservation of biodiversity in the laws enacted to deal with protected areas, biodiversity, and the sustainable use of natural resources. Wildlife scientists and managers, as well as operational and administrative managers and staff, are appointed to run these conservation areas under the guidance of national or provincial conservation governing bodies. These people are custodians entrusted to guard, protect, and maintain conservation areas according to goals formulated by national or provincial legislatures and embodied in laws and policies. Conservation areas as public property have been legally placed in their care as trustees to administer for the benefit of all citizens. As custodians and trustees they use their professional,

scientifically informed judgement within the broad goals and purposes set by national and provincial governments on behalf of citizens. Within this framework they have a degree of discretion and independent judgement to do what is best for a particular conservation area. They are accountable to government and citizens through regular reports and feedback.

When a matter excites so much emotion and generates such controversy as elephant management, democratic theory and practice require that wildlife managers of public conservation areas demonstrate their accountability to the public for whatever decisions they take. In such cases they ought to consult thoroughly with all stakeholders, as has become accepted practice in modern constitutional democracies like South Africa (see Gould, 2002; Begg, 1995).

Not all protected areas are managed by public bodies. Private institutions, social organisations and individual citizens manage the majority of protected areas in South Africa, out of their own volition, for their own benefit, or as a civic duty. These civic bodies and private individuals also take responsibility on behalf of the public or in the name of public interest when they deal with the natural heritage and life-enabling biospheres of citizens. They are accountable to the general public just like state institutions.

In moral dilemmas generated by controversial aspects of elephant management, the decision makers take on a collective moral responsibility similar to individual moral agents in their ethical decision making. They must give a public account of how they discharge their moral duties in their custodial role. They have the responsibility to take all information available into account and to place the information in the public domain for inspection and discussion by interested parties. They must be transparent in their decision making so that everyone can follow the logic of their reasoning and the factual, scientific basis of their claims. They are accountable to their stakeholders and must be prepared to engage stakeholders in dialogue (see Gutmann & Thompson, 1996). This much is required of any person in public office in a constitutional democracy that is paid by public funds and makes decisions about contentious issues.

## **Categories of stakeholders**

Stakeholders do not all have the same interests, nor do they have claims of equal value or weight. The categories of stakeholders and the weight of their interests must be carefully distinguished. For example, the interests of villagers whose lives, bodies, and livelihoods are threatened by elephants crossing the boundaries of conservation areas must be judged more urgent than the interests of people in distant locations.

In the global village, it can be argued that conservation areas do not only belong to the citizens of the country in which they lie. Most conservation areas have special significance as a result of their globally unique ecosystems with accompanying biodiversity. Such areas can thus be judged to be common property of all human inhabitants of our planet, a kind of global commons. Many people judge that what some humans do in the biosphere affects all other humans. Similarly, many people judge that the natural resources and wonders on Planet Earth ought to be held in trust for all citizens of the globe. The creation of world heritage sites by the United Nations captures this idea. The various international treaties relating to biodiversity conservation give effect to this notion of a global commons.

## THE MORAL STANDING OF ELEPHANTS

There is no doubt that humans regard themselves as beings with moral standing – that is, as beings whose interests must be taken into account in any ethical decision making. In general, humans believe we owe it to one another to consider the ways our actions impact the well-being of other people. Thus we ascribe a moral obligation on ourselves to be aware of, and care about the possible benefit or harm our actions cause to other humans.

Do we extend this moral consideration to other living organisms? If so, what organisms do we include and to what extent do we take their interests into account? Thus, what level of moral standing do we assign them compared to the standing we believe we owe to members of our own species?

### Humans and moral standing

Many people have a human-centred bias in the way they ascribe moral standing to other living organisms. This means we are biased toward our own species and use ourselves as benchmark in determining moral standing. We generally look at the characteristics such living organisms have in common with us, characteristics we find impressive. Somehow this bias makes sense, as we are the only beings, as far as we know, to make such judgements. The only thing we have as benchmark for moral standing is our own flawed attempts to ascribe moral standing to members of our own species. This starting point seems to be as good as we might get. The crucial question is whether we are *fair* in our judgement of other living organisms. We must be open to the inherent differences in other species and appropriately acknowledge their qualities and characteristics.

## Elephants as agents

How can we responsibly determine the moral standing of elephants? Perhaps what follows is a way forward. Humans experience elephants as 'intriguing animals' (Bell-Leask, 2006). What are the characteristics of elephants that so fascinate us and lead so many of us to judge them as belonging to a superior class of animals deserving high moral standing, like dolphins, whales, dogs, chimpanzees, gorillas, and lions?

Elephant researchers have convincingly demonstrated that individual elephants are complex *agents*, sources of self-originating activities (Taylor, 2002, 89). The concept 'agent' at its basic level refers to something with the potential to exert power, produce an effect, cause an outcome, or influence its environment. This 'something' is a point of origin of one or more forces that can be activated under the right conditions to start a chain of events.

There is a continuous spectrum of agents of increasing complexity with higher degrees of agency. At one end are lifeless chemical agents, such as acid. At the other end of the spectrum we find human beings. Human agency can be seen in our ability to act intentionally, author events, produce effects, make things happen, bring about change, and cause consequences. Agency also manifests itself by our nature as centres of experience through which we process information about our world to become aware of its possibilities. Our agency shows in how we make decisions about appropriate courses of action in the light of values and goals we have set and appropriated for ourselves.

Obviously human agency has limits, as we cannot act to alter the movements of the stars, cannot effectively intervene in the course of terminal disease, nor bring to bear appropriate force on two individuals to make them fall in love. Nevertheless, our collective agency as humans on earth seems powerful enough to alter climates on our planet.

Elephant agency similarly manifests in various ways. They are important sources of activity within the African ecosystems, with functions often described as those of 'engineers' that stimulate, affect, and even create habitats for other living beings. They are centres of experience that observe the world through complex sensory organs. They store the information thus received in long-term memories that provide guidance about resources crucial for survival. Their experience of their world is filtered through complex brain processes that include a range of emotions and linguistic symbols. Their complex agency functions resemble ours to a significant degree (see Antonites, 2007).

## Similarities between humans and elephants

There are many other characteristics of elephants that are similar to ours (see Douglas-Hamilton, 1975; Moss, 1988; 1992; Payne, 1998; Whyte 2001; 2002; Chadwick, 1992; Meredith, 2001; McComb *et al.*, 2002; Gröning, 1999; Hanks, 1979, and Larom, 2002). Elephants have senses similar to human beings: their eyesight might be worse than ours, but their sense of hearing and sense of smell are far better than what we possess. They can experience a range of emotions, of which their acute awareness of death and resultant mourning the loss of family and friends move us (see Moss, 1988; 1992).

Their lifespan roughly matches ours and their young need similarly many years of upbringing before they are judged to be adults. They have complex social behaviour and organisation. The playfulness of younger elephants in matriarchal herds, the joy of family groups at reunions, the stand-offs between bulls of all ages, the care and protection older females display towards the young, the 'discussion' between senior members in family herds about decisions, and the gentle but firm leadership of the matriarch are all forms of behaviour we can identify with. We are intrigued by their regionally unique languages with up to 80 different calls, commands, and other elements.

Societies capable of socially complex behaviour are societies (1) with unique individuals as members, (2) that are reasonably stable over the longer term, (3) that have individuals capable of acquiring social skills, and (4) that have experienced members that transfer acquired habits and knowledge to younger ones. Elephant society can clearly be described as socially complex, though less so than human societies (see De Waal *et al.*, 2003; Payne, 2003). Furthermore, their social bonds and their sense of death, and in general, the close resemblance between their lives and ours engender our sympathy and love for all those qualities that make ascriptions such as 'intelligent' and 'gentle giants' seem appropriate.

## Differences between humans and elephants

Having pointed to the similarities between humans and elephants, we should not ignore the enormous differences between the two species, nor the fact that many other non-human species exhibit these features to varying degrees. One can argue that both the similarities as well as some of the differences between humans and elephants are reasons for the feelings of awe and appreciation we have for them. Note the important role of some differences in this case. If elephants were only similar to us, but had no significant differences,

we would have treated them solely as beings of lesser qualities and worth than ourselves. The differences that matter in this case are dissimilar, distinct, and impressive qualities of elephants that we do not possess.

Some of the differences that add to our appreciation and valuation of elephants are their superior physical size and strength. Similarly, we value their acute sense of smell, we are amazed by their communicative abilities through infrasound, and we are thrilled by their stealth in moving silently and unobtrusively through thick bush despite their massive size. The fact that such huge animals are vegetarian adds to their allure as well.

Although elephants can destroy us through their enormous physical power in any one-on-one fight, humans are the dominating species that control so much of the lives of elephants. Perhaps the most important difference between the two species is the fact that elephants cannot call a meeting and discuss the challenges their feeding habits create for other species. They cannot come up with a plan to deal appropriately with such an issue, as far as we can see. We must do it for them, although we struggle to implement such plans effectively for our own species! Elephants do not have our highly sophisticated communication skills, including natural and symbolic languages. They do not have our amazing organisational capacities. Elephants cannot transform natural resources into useful products such as computers, like we can. Their impact on their environment is dwarfed by our impact. Our capacities for suffering and mourning the loss of our dead manifest in far more complex ways than similar capacities do in elephant society.

Elephants are also not capable of the full range of moral behaviour that would make them into moral agents on a par with humans. We are as yet not sure if, and to what extent, elephants have a moral sense like ours or follow moral rules (see Antonites, 2007). Yet, they are still important moral patients, beings to whom we owe considerable moral respect, although not to the same degree as to members of our own species.

Thus, in the light of these significant differences, the interests of elephants cannot have the same weight as those of humans, as our complexities in terms of features we define as relevant to moral standing far outstrip theirs. Elephants do not have equal moral standing with humans, as they do not match the intellectual, behavioural, or emotional complexities of our species that demand so much moral respect. Obviously this is spoken as a human being with a biased perspective! Moreover, we must also acknowledge that despite our self-assigned moral standing, humans have negative qualities that elephants cannot match. For example, their potential to impact negatively on our shared world is nowhere close to ours. Similarly, our repeatedly demonstrated capacity for maiming and

killing of living beings of all species, our own included, far exceeds theirs. In an important sense they are by far a more peaceful species than we are.

### **The moral standing of elephants and other animals**

Elephants are not the only animals with characteristics that we judge to be amazing, although for many people they are members of the small group of 'most special' non-human beings. Many animal species have characteristics that we value or admire, or qualities that make them unique, appreciable, and astounding. For example, we prize owls for eyesight in the dark, their sharp hearing, and their stealth flying. We are amazed by the navigational skills of pigeons and marine turtles. Dogs are highly valued animals for their acute sense of smell, their ability to be trained for specialist functions to assist the police, emergency services, and disabled people, their sensitivity to human emotions, and their companionship coupled with immense loyalty. We admire and fear lions for their regal demeanour, strength, ferociousness, and their hunting prowess. The differences in the complexity of mental life between humans and elephants are perhaps much more than the differences between elephants and owls, dogs, or lions. There seems to be no convincing reason why elephants should deserve a moral status equivalent to humans, as they are closer to other animals than to humans. With other higher species, however, they do deserve a special moral status, as they have some of the most complex sets of behaviour and intricate inner lives of all animals.

As humans we differentiate between living beings in terms of their moral standing, mostly based on the level of complexity they express in their consciousness, individual behaviour, social organisation, or physiology (see Antonites, 2007). Most people have no problems eating meat from cattle and sheep, but would shrink from having dogs or primates killed for human culinary purposes. Many people do not mind killing a rat that nests in their ceiling, but would find it far more difficult to kill a cat doing the same. Elephants definitely belong to the upper class of animals that we judge to have higher moral standing than the rest.

What are the implications of their moral standing for our behaviour towards them? Perhaps some of the ethical theories can guide us.

## ETHICAL THEORIES

Many of the harshest critics of any human intervention in the lives of elephants, especially those causing suffering or death, are referred to as animal-rights activists or animal-welfare activists. Do animals really have rights that humans must respect at all times? If so, who has assigned them their rights and why should humans refrain from violating these rights? Or should we perhaps argue that all sentient beings have interests that humans ought to respect to the degree that those beings can experience welfare – that is, pleasure and satisfaction or pain and distress?

If the interests and rights of individual animals have to be taken into account, should these interests and rights get priority above the well-being of ecosystems and other species? To what extent can we use wildlife as a resource to fulfil our human needs and wants? The ethical theories discussed in this section aim to answer questions like these.

### Singer's consequentialist individualism

Most animal welfare organisations have their intellectual roots in the environmental ethics of Peter Singer. He offers one possible justification for placing the interests of animals much higher on our human list of priorities than most people actually do. Singer makes the apparently controversial claim that humans have no special place in nature and cannot claim any superior position to any other animal in any process of ethical decision making. This strong claim is qualified by other aspects of his theory (Singer, 1985, 6). Singer counts all beings as morally relevant and able to experience pain and distress or enjoy things and have pleasure. His view acknowledges that taking a human life can be worse than killing a snake. The reasons are that humans have more complex and sophisticated experiences of pain and pleasure and humans have more complex mental lives that include pasts and futures (Singer, 1985, 9).

Singer's utilitarian ethics determine the correct action by calculating the amount of pleasure, happiness, and well-being generated by an action versus the pain, suffering, or ill-being it incurs. Thus, in the case of the human versus the snake, the more complex and sophisticated human experiences of pain and suffering far outweigh the painful experiences of the snake.

If Singer's intuitively plausible views are applied to the elephant problem, the interests of an individual elephant will outweigh the interests of most other individual animals belonging to species other than *Homo sapiens*. Elephants would have a moral standing lower than humans, but higher than most other

animals. However, despite the moral standing of individual elephants and their species, Singer does not intend his utilitarian ethics to be applied in individualistic fashion. When a conservation area has an overpopulation of elephants that are altering the habitat of other species and themselves, a careful weighing of the interests of different forms of life has to be done. The issue is to determine the effect that the consequences of different decisions will have for all parties involved. The interests of all individual elephants, millions of other living beings, tourists, wildlife managers, and all other stakeholders must be weighed against one another.

It is doubtful whether Singer's ethics that treats animals as equals implies that human interference in nature is never justified. There are too many other animals that might lose their lives as a result of elephant impact and, in some cases, even whole species might be driven to extinction. Singer's view would definitely require some kind of intervention in favour of the multitudes of animals with threatened livelihoods. Some kind of management intervention, potentially including culling, would be justified if all interests are fairly added up.

### **Regan's deontological individualism**

Many people and organisations are committed to the idea that animals have rights. Tom Regan (1984) is regarded as champion of the idea that animals have rights which all humans must respect (see also Cohen & Regan, 2001). Regan's stance rests on the idea that many living beings are similar to humans as they possess mental capacities and can experience their lives in terms of better or worse welfare. Such animals are subjects-of-a-life and they thus have inherent value. Therefore, animals must be treated respectfully as rights-holders that have the same moral status as humans. Respectful treatment implies that such beings may not be killed, their bodies may not be invaded or injured, and their choices may not be restricted nor their freedom limited. Regan strongly rejects all utilitarian positions, as such views cannot protect innocent individual animals from being sacrificed for the benefit of others whose interests count more (see Sagoff, 2002, 42). Regan emphatically rejects the killing of any rights-holder and strengthens his position by saying that killing is unacceptable regardless of the consequences for others.

When he discusses wildlife, Regan often states his view simply as 'let them be!' (Regan, 1984, 357, 361). He refuses to see wildlife as a natural resource available for human benefit and recommends that wildlife managers should aim to keep 'human predators out of their affairs' (Regan, 1984, 357). It is doubtful

### **Box 1: Limited rights for elephants?**

Rights are generally understood as justified claims to specific things that a society guarantees its citizens for certain strongly defended reasons. Rights can only be assigned if the majority of citizens in a society have decided the claim is acceptable and that members have a duty to provide that thing to one another. If a society would decide that elephants deserve rights, what might the contents be of such legal protection?

A first possible right builds on the idea that humans should not lightly kill elephants: 'No human may kill an elephant unless in self-defence, or when an independent panel of appropriate experts find compelling reasons to do so.' The biggest harm we can do to elephants is to kill them. We thus first of all owe elephants the security of their lives that we cannot take away without good reasons. Elephants are subjects-of-a-life or agents similar to us, though of slightly lesser complexity, who make decisions and experience a wide range of emotions. They have consciousness like us and are deeply aware of death. They thus deserve similar protection of their lives to that which humans get.

The second possible right articulates the idea of liberty for elephants: 'No human may deprive an elephant of its liberty to live its own life in a fitting habitat without convincing justificatory reasons.' If we can ascribe free choice to elephants, then ethical treatment of elephants implies that we ought to give them liberty, as they have a clear and distinct inclination to live their lives in suitable habitat according to their lights. If elephants are agents with high levels of sentience, they have a compelling interest to live their lives in the light of their own best judgement of where to find food, water, shelter, and companionship.

What justifies this right? Most living beings exhibit a whole range of behavioural signs that they detest being held in captivity or resist being captured and held in human hands. Elephants are no different than any other living being that prefers (i) to settle the boundaries of its home range for itself in competition with other members of its species and (ii) determine its own life within that territory.

What does liberty for elephants imply? It means we must give them space and opportunity to live in near-natural conditions. We must also respect their autonomy to choose themselves how they want to live their lives, as elephants have done for millennia. Elephants present us with strong evidence that they

are agents and we must respect their capacity for informed decision making. There is no doubt that elephants are competent to make their own choices and thus do not need anything more from us than to allow them to be, i.e. to live their social life on sufficiently large tracts of land with suitable habitat.

A third possible right outlines the importance of privacy for elephants: 'No human may intrude or interfere in an elephant's life without strong reasons to do so.' Privacy can be defined as a state or condition of limited access to a life, or zones and spheres of lives that are not to be invaded or violated. Privacy is important to allow living beings to act freely in the absence of scrutiny and interference. Elephants apparently do not have a need to limit humans' access through observation to any part of their lives. For example, birth, death, and sexual relations occur in public spaces visible to any living being close by. If they do not withdraw themselves into the cover of vegetation, we might assume they are not too bothered by our prying eyes. However, elephants do seem to need lots of personal space around them. There is no doubt that they insist on enough space whenever other animals or motor vehicles get too close to them.

To give elephants the privacy they require thus has an important implication for tourists and researchers, i.e. they must stay at a respectful distance from elephants. A respectful distance will be determined by elephants themselves, who can often be seen threatening either wild animals that violate their private space or motor vehicles that are driven too close to them for comfort.

The final right elephants might deserve goes as follows: 'Owners, managers, or keepers must give elephants appropriate care and compassion that will ensure both their well-being and that no harm or suffering from non-natural causes will befall the elephants they are custodians of.' This means we must protect their habitat and not beat them in abusive fashion. We do not have to interfere in their struggles within their ecosystems, unless some kind of prior human interference impacts negatively on the functioning of ecosystems.

Is the idea of limited rights for elephants far-fetched? Perhaps not. The norms and standards for elephant management proposed for legal enforcement by the South African government's Department of Environmental Affairs and Tourism embody many of these 'elephant rights'.

whether Regan's views on animal rights can be applied so simply to conservation dilemmas. He touches on such issues briefly, but does not highlight the full implications of his view that individual animals have rights that need almost absolute protection. Applied to the issue of controlling elephant numbers, one can usefully extend his views by taking a cue from his discussion of what is ethically acceptable when a rabid dog attacks you in your backyard (Regan, 1984, 296). Although he reiterates his position that animals can do no moral wrong, in this case the dog is a threat to our bodily integrity and maybe even our life. We can thus defend ourselves and harm the dog in the process (Regan, 1984, 296). What Regan does here is to weigh the rights of humans, whom the dog might violate, against the rights of the dog as aggressor that intends bodily harm to a fellow animal (the human). The rights of the victim thus trump the rights of the aggressor through legitimate self-defence.

Let us assume for the sake of argument that Regan's view on animal rights is generally accepted as true and correct. If individual elephants have rights, and so too thousands of other individual animals qualify as rights-holders, how are we going to solve the ensuing complex conflict of rights when elephants alter the habitat and thus endanger the livelihood of millions of other rights-holders? (see Cumming & Cumming, 2003, 561).

Animals cannot manage and administer their own rights under the best of circumstances, thus needing humans to assist them. If humans have to solve this problem in terms of animal rights, then we should interfere in this conflict of rights to life. Or could an animal-rights supporter be so callous and insensitive to say that millions of living beings can be allowed to die in the name of 'letting nature be', but not one animal may die as a result of benevolent human intervention to protect species and ecosystems? Perhaps management interventions with the explicit motive of removing excess numbers to protect the habitat for millions of living beings seem more in line with an animal-rights approach than merely letting nature be?

## **Holistic protection of ecosystems**

Many people and organisations involved in conservation believe that it is the complex of ecosystems, landscapes, and diversity of life forms that must be preserved for posterity. This approach is championed in South Africa by SANParks (and by WWF and other large conservation NGOs), who interpret their mandate as custodians of South Africa's conservation areas in this light.

What is the goal of protected areas according to the holistic view of ecosystem conservation? According to this view, conservation in national

parks should be comprehensive, with the goal to protect the full scope of biodiversity (see Holmes Rolston III, 2002, 38 and Whyte *et al.*, 1999, 113). The focus is on all aspects of life and its enabling conditions, thus including the biosphere, landscapes, ecosystems, species of all the different life forms, and individual organisms. The approach implies that all aspects of conservation areas should be protected so as to allow and enable nature to function, as far as possible, on its own without human interference or even without benevolent human intervention. The comprehensive, holistic focus on the well-being of greater systems is the strength of this approach, while its willingness to sacrifice individuals and groups for the sake of the overall health of ecosystems and landscapes is its downside.

According to this view, conservation areas should ideally have limited human presence and even less human interference, so as to allow natural ecological processes to function as they did for millennia. These places should be free from all forms of human domination and exploitation. Such conservation areas provide opportunities to establish different 'biocentric' or 'ecocentric' worlds where biodiversity flourishes and free animals pursue their interests as they see fit within their preferred habitats. Such 'worlds' can allow evolutionary processes to follow their ways. Eco-tourists should behave like visitors and guests who show deep respect for the 'citizens' of these 'worlds'. They should know and appreciate the fact that conservation areas are neither cattle ranches nor zoos. In these areas nature must follow its course and human interests must be subservient to the dictates of the wilderness. Eco-tourists in these 'worlds' can imagine themselves entering past worlds, worlds similar to the ones in which humans first evolved thousands of years ago and akin to those in which our early hunter-gatherer ancestors survived for millennia. In the same way that tourists respect items on display in museums and art galleries, we should foster respect for all elements within these natural museums and galleries of our evolutionary past.

The idea of ecocentric worlds implies holistic conservation with the aim to keep intact the enabling conditions and prerequisites for the effective functioning of the earth's biosphere. These ideas have gained new relevance in recent years. Global environmental challenges seemingly require major changes to our population growth, lifestyles, and use of natural resources if we want to preserve the global biosphere's life-enabling qualities. The elephant issue encapsulates these challenges that confront us with the history and consequences of our impact on elephant lives and habitat. This issue presents an opportunity to redefine our relationship with elephants and to rethink how we take care of them.

The holistic view about the conservation of nature's functioning through ensuring multiple continuing interactions within various ecosystems leads to ethical principles similar to the famous one articulated by Aldo Leopold (1981): 'A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community and wrong when it tends otherwise.' This principle implies that elephants, or any other living beings for that matter, are expendable for the sake of the health and beauty of the larger wholes, like the biosphere or a specific ecosystem.

Note how an animal rights perspective believes the holistic view sacrifices individual animals for the sake of the larger whole. Pickover (2006) rejects the holistic view that holds that as 'long as the species is perceived to be sustained it does not matter what that might involve, or what the plight might be of individual animals or groups of animals.'

### **Respectful sustainable use in traditional African communities**

The idea of sustainable use of natural resources has been widely discussed. Not only is the idea of sustainable use of natural resources part of the South African constitution and conservation legislation, it is also part of the policies of the Southern African Development Community and the IUCN. Large differences of opinion exist about the correct understanding of this idea. Instead of unpacking these debates, we let pre-colonial African communities serve as example of the sustainable use of the natural resources of the African savanna that forms the habitat of most of Africa's elephants.

No one really knows how big the impact of human hunting was on African wildlife, elephants included. What can be inferred is that the impact was sufficiently minimal that the wildlife persisted in the presence of humans for millennia, and thus the use of African fauna as a food source was sustainable most of the time. If not, we would not have had reports from early European explorers describing Africa as a place 'teeming with wildlife.'

Although contemporary academic theories that develop traditional African values about the environment into theories of environmental ethics are scarce in South Africa, sufficient clues exist that enable a partial reconstruction of such values. Perhaps the most important fact to consider is that African people lived alongside wildlife for centuries without hunting any species of wildlife into extinction that we know of, as has happened on other continents like Europe. Reports by early explorers and anthropologists point to lifestyles that made respectful and constrained use of wildlife for survival, trade, and adornment. Oral and literary reports speak of Africans with a deep love for nature that found

expression in a comprehensive knowledge and profound understanding of African wildlife.

Credo Mutwa (1996, 11–26) explains some of the traditional African values that he encountered in different communities across southern Africa. Mutwa claims that these pre-colonial values often persist in some contemporary communities, albeit sometimes in fractured forms.

Mutwa believes pre-colonial Africans had a deep awareness of their dependence on nature. They saw themselves as part and parcel of nature, not as dominant conquerors. They had respect for animals and plants that can be seen in a host of regulations aimed at the protection of plants, animals, and water sources. At least some individuals had impressive knowledge and understanding of all the elements in ecosystems that are involved in intricate, intimate, interwoven interactions. They made use of natural resources *inter alia* through ethically regulated hunting for survival purposes.

The phenomenon of tribal totems – plants or animals that functioned as symbols of the identity of a tribal community – illustrates the ideas these communities implemented in their conservation practices. Mutwa argues that preservation of the totem animal not only required protection of the specific animals in question, but also its habitat, the animals that live in close association with it, and its predators. In this way the food sources of the totem species are safeguarded, its natural allies who assist in vigilant watchfulness continue to play their role, and their predators ensure the survival of only the fittest of the species.

Totemism is a crucial theme in an African philosophy of conservation (Ramose, 2007). In African culture, a totem animal or item, including the elephant (*tlou* (Sotho), *ndlovu* (Zulu), *Zhou* (Shona)) is an object that demands reverence and not mere respect. It is revered because it is deemed to be a special, mysterious, representative of the power of the gods (*badimo*, *madlozi*, *badzimu*). This quality confers upon it the aura of untouchability. The effect of this is the preservation and conservation of the totem animal. The *Batloung* clan among the Sotho-speaking peoples and the *BakaNdlovu* clan among the Nguni-speaking peoples are to promote and defend the preservation and conservation of the elephant because it is their totem animal.

According to Ramose (2007), totemism must be seen against the background of the African conception of community. It is crucial to note that relationships within this community extend very consciously beyond the sphere of human beings. If this were not so, then totemism would be meaningless. The traditional African community is a three-dimensional community comprising the living, the living dead ('ancestors') and the yet-to-be-born. The bonding of this

community, which thus includes animals, rests upon (a) mutual care and concern, (b) solidarity through the preservation of the network of relationships, as encapsulated by the idea that 'I am related, therefore we are,' and (c) the imperative to strive after and maintain harmony in the prevailing relationships. Thus reverence to the totemic animal is not equal to, but akin to reverence to the living-dead whose power and influence over the lives of the living are overwhelming. It is this philosophic outlook which in pre-colonial Africa ensured the preservation and conservation of nature in general, and elephants in particular.

Many of these attitudes towards the environment can still be observed, for instance among the Maasai people in Kenya and in the revival of community-based conservation projects and sustainable use practices in Zimbabwe and Namibia. In contemporary South Africa contractual agreements between local communities and SANParks in the Kruger National Park (Makulekes in the north), the Richtersveld National Park (the local Nama people), and in the Kgalagadi Transfrontier Park (the Khomani San) similarly point to these values being reinvigorated and put to new use. One can also detect these values from the presentations made by traditional African community representatives at the Great Elephant Indaba organised by SANParks in 2004.

The American philosopher and economist David Schmidtz (1997) takes up some of these ideas selectively in his writings on environmental ethics. He argues persuasively in favour of the sustainable use of African wildlife through community-based conservation efforts. He bases his argument on his observations of, and extensive interviews with many people in southern Africa involved in such projects. His argument is that poor Africans will protect their natural environment and its inhabitants if they derive some value and enjoy some benefits from their efforts. He thinks that protection and sustainable use of the environment will be the rational thing to do if the impoverished communities can make a decent living from benefits that accrue from hunting and ecotourism. He consistently cautions that wildlife and natural landscapes will disappear if communities have no proper incentives to care for them. His view raises these questions again: if local communities can make livelihoods from African wildlife on land outside protected areas, why should they not? If resources can be sustainably harvested within protected areas, why should they not be?

Wildlife has been a major resource on the African continent for centuries. Can it be used as a sustainable resource for fighting desperate human poverty in African countries (Osborn & Parker, 2003, 73; Du Toit, 2002, 1403–1416)? If yes, what kind of sustainable use is acceptable? Will it be ethically acceptable

to use some conservation areas not only for the purposes of ecotourism, but also for hunting, culling, harvesting excess wildlife, thus, in short, for any kind of commercial exploitation? Several projects in different African countries have shown the idea to be viable if managed carefully (Bonner, 2002, 320–329). The idea also makes sense, as many African savanna areas are by far more suitable for wildlife farming than for cattle ranching or cash crops. If implemented on a large scale, much more land will become available for African wildlife, as has happened in South Africa's explosive development of commercial conservation for the purposes of ecotourism and sport hunting (Bulte & Horan, 2003, 110).

Many wildlife enthusiasts immediately reject proposals for sustainable consumptive use of African wildlife, based on their view that killing animals is ethically unacceptable. They find the idea that conservation can obtain income through using natural resources, particularly where this involves 'harvesting' of wildlife (Hanks, 1979, 165), to be abhorrent. Indeed, southern African conservation agencies are unusual in the degree to which they are able and expected to 'pay their own way'. Whether harvesting takes place by means of culling excess animals or issuing hunting licenses, the whole idea of a conservation area conforming to the economic logic of cattle ranching seems repulsive to many (Ginsberg, 2002, 1185; Du Toit, 2002, 1403–1416). The reasons behind this feeling against utilisation are that in this case human interests stand paramount in determining the value of wildlife, with the implication that whatever humans do not find valuable, can be neglected, abandoned, or wasted. People against this kind of harvesting, or sustainable utilisation of wildlife resources, try to articulate an intrinsic value for conservation areas, assigning value to them that is independent of human concerns and interests.

Note how Michele Pickover (2006) describes the conception of elephants she believes inherent in sustainable use practices: 'intelligent and sentient beings who are capable of deep emotions and who, at the very least, deserve our respect and compassion, are being classified as goods and chattel'. She finds these practices objectionable, arguing that 'using animals as resources to serve human needs is wrong for some of the same reasons that slavery is wrong'. Her view does not mean that she has no compassion with the everyday struggle of poor people to survive. She acknowledges the 'need to focus on and foster other, more sustainable and humane forms of income generation', but she denies that poor communities can only benefit from conservation 'if the animals pay with their lives'. Her alternative is to design 'poverty alleviation programmes ... that avoid animal suffering and take into account respect for other species.'

## Can the conflicting ethical theories be harmonised?

Most democratic societies experience reasonable moral pluralism, which means that over a range of issues, reasonable and morally mature adults make conflicting moral judgements on the same issue. Humans in democracies have learned to live with such moral differences about serious matters, such as abortion, by being tolerant towards one another and acknowledging that there are no universally applicable moral principles for solving some moral dilemmas (Willott & Schmitz, 2002). Of course, there are certain fundamental moral values embodied in a society's conception of justice, such as the injunction not to kill fellow citizens. But even the detailed understanding and application of such absolute moral values do not necessarily rest on full consensus, as we can see in controversies about whether the right to life can be squared with the death penalty or abortion.

Let's take the proposal of the sustainable use of African wildlife through hunting and culling and its critics as an example of the possible resolution of ethical issues in a morally pluralist society. If we live in a human world where we have reasonable differences about serious moral issues (see Gutmann & Thompson, 1996), do those of us whose personal morality does not allow hunting, rejects eating the carcasses of wildlife, and disapproves of animals being killed for human purposes, have a right to prohibit these practices for those of a different opinion? (see Schmitz, 1997, 327–329).

One must note that a vast majority of people accept the use of cattle, sheep, and pigs as nutrition for human beings or as religious sacrifices. Are there any particular reasons why these commercially used animals should have much less of a moral status than most species of African wildlife? This state of affairs implies that prohibiting commercial use of African wildlife as a sustainable natural resource for Africans to better their lives might be labelled as a case of cultural-ethical imperialism. Do rich, privileged environmental activists – who can afford a healthy vegetarian diet (or neatly packaged meat from a supermarket) – have the right to impose their cultural and personal ethical views about deeply controversial moral issues of hunting and eating meat on poor rural people with centuries-old traditions of sustainable use of wildlife? If these poor communities develop such a deep commitment to the value package African wildlife offers humans, and thus contribute substantially to enlarging areas available to wildlife, should they be refused the chance to do so?

If one takes the claims of people who have lived with African wildlife for centuries seriously, then the idea of a morally pluralist world opens the possibility for legitimate use of elephants through culling and hunting.

There might, of course, be good moral arguments that restrict or reject both these options. Wisely managed culling and hunting are two manifestations of sustainable use that reject the moral standing of higher mammals like elephants. Is that acceptable? Other forms of sustainable use like ecotourist activities, such as safaris, hiking, and camping, are forms of use that respect the moral standing of elephants.

Somehow we will have to learn to engage fellow citizens who have ethical viewpoints substantially different from ours in dialogue. We will have to learn how to deal respectfully with the moral differences between us and our fellow citizens through moral deliberation.

## **ETHICS AND MANAGEMENT OPTIONS**

In an ideal world all humans would treat elephants in ways that appropriately acknowledge and respect their moral standing. Elephants would have enough land available to freely live their lives as they see fit and to migrate to other areas when they deem it appropriate. In such a world humans would have no reason to intervene in their lives. However, we do not live in such a world. As a result of the violent history between our species, the exponential growth in human population, and the resultant loss of elephant habitat, conservationists must explore various management options to create the best life possible for elephants within current constraints.

### **Translocation**

Translocation is at best an experience that traumatises elephants in several ways. The trauma begins with a helicopter flying low over their heads and the elephants being darted. The older cows are darted first to ensure the matriarch goes down quickly. This practice confuses and disorientates the younger ones and they thus do not run off, but stay close to the matriarch. The anaesthetic takes several minutes to knock out an elephant. The elephants are aware of being drugged and that they are losing bodily functions and consciousness. When the elephants awake, they find themselves inside a cramped steel compartment, with humans both injecting them to keep them sedated and prodding them with electric shocks to move them into position.

The captured elephants travel for hours in a semi-sedated condition until they are offloaded in a strange place. Once there they are disoriented – their store of knowledge about the physical features, feeding areas, and waterholes of their home range has been disabled. They must start all over again, this

time perhaps without their complete family and bond groups. In translocation operations, reliable and exact selection of a smallish herd is difficult. Some family members might have wandered off on their own, or might be socialising with another herd close by. Selecting a herd from a helicopter can fail to get it right and some close family members might consequently be permanently separated from the herd despite the best intentions of a capture team.

If one weighs and compares the costs and benefits produced by culling or translocating elephants, the limited trauma of translocation and possible separation of members from their herd are not as bad for elephants as to have their lives terminated through culling. For this reason translocation is ethically preferable to culling. To avoid wrong selection of elephants an ethologist with keen observation skills and deep understanding of elephant behaviour ought to work with the capture team.

Besides wrong selection of elephants for translocation, the wrong selection of habitat for the introduction of elephants can also be made. Humans with elephants in their care must ensure that the habitat is suited for elephants, in the sense of (1) having enough space for the normal size of an elephant home range in the relevant kind of habitat with adequate refuge areas, (2) offering adequate food and water sources through various climate cycles, and (3) providing habitats with suitable space and vegetation types to accommodate so-called 'bull-areas'. The habitat set aside for elephants must be appropriate to avoid an unnatural increase of conflict between sexually active bulls, thus giving them fitting 'social landscapes'.

Although the financial cost and required expertise might in some cases limit the use of the translocation option, a far more important factor almost precludes translocation as a serious alternative to culling. Human encroachment on elephant habitat has diminished the land available for elephant relocation. Only small pockets of land are available for the specialised needs of elephants.

## **Contraception**

Contraception is clearly more ethical than culling, as no existing elephants are deliberately killed. Contraception merely prevents elephants being born and thus can be administered to slow down the birth rate to reach the desired population size over a longer period of time.

Contraception thus seems to be a promising alternative that might soon go a long way to satisfy opposition to culling. But note the words used: 'a promising alternative', and 'might soon.' We still have to wait for the outcome of long-term scientific studies with strongly confirmed evidence on the effects

of vaccination on elephant physiology and social behaviour. The logistics and cost of vaccination are other complex issues that have not yet been sorted out. There is no ethical justification to use methods in an experimental stage and not yet adequately tested on large elephant populations. There are good reasons for caution when implementing new management strategies for elephant populations. Human understanding of the complexities of elephant life is not yet well enough advanced to be able to predict the outcomes of such management interventions. The consequences of these interventions may also take several years to become manifest, due in part to the longevity of elephants and the complexities of their social structure and their reproductive systems (Whitehouse & Kerley, 2002).

Contraception is not without ethical problems. This invasive method is a drastic human intervention in the bodies of elephants. The possibility that contraception can cause sterility over the longer term must be examined, as well as the effects on cows that normally come into oestrus and mate once every 5–9 years, now coming into oestrus every 15 weeks and mating without falling pregnant (Whyte, 2001, 164). The social effect of fewer calves on the size of herds might not be so problematic, as smaller herds (between 10 and 20) often have kin groups with whom they might rejoin if under stress. The more important issue is that young elephant cows might be denied the process of learning to become a mother. Young female elephants learn how to be mothers from their elders, a process called allomothering. If their own mothers and aunts won't have any calves for five years or more, they might not get the chance to serve their motherhood apprenticeship properly before they give birth for the first time.

Contraception will have to be developed and applied with ethologists with keen observation skills and deep understanding of elephant behaviour, and veterinarians who can monitor physiological impacts.

## **Culling**

Culling is the deliberate killing of animals for the purpose of reducing the size of an animal population. Whilst the scientific jury is still out deliberating whether culling is absolutely necessary in some or all cases for the sake of conserving living organisms, landscapes, and natural processes, this section asks the question: if culling is recommended by scientists, should it be done?

Culling raises serious ethical issues (see Chadwick, 1992, 430–436; Payne, 1998, 213–224).

- Is it wrong to kill special mammals solely for the reason that there are too many?
- If we do have to kill elephants, which methods are the most humane?
- Does the practice of killing the matriarch first and then the others cause unnecessary, though very brief, suffering?
- What is the significance of elephants communicating their experience of culling through infrasound to other herds in a radius of approximately 10 kilometres? (see McComb *et al.*, 2002, 317–329; Larom, 2002, 133–136)?
- Will elephants that are aware of culling practices in or close to their home range become aggressive to humans and threaten tourists as a result?
- Is it ethical to require people to participate in culling and the removal and disposal of carcasses?

Some people do not accept that elephants have any moral standing and thus find no problem in advocating culling for population reduction. In terms of a strongly perceived moral obligation not to harm or destroy animals of exceptional psychological, social, behavioural, and physical complexity, other people argue that culling elephants can only be justified in situations as extreme as those used to justify killing humans in a just war (Lötter, 2006). As in a just war, where the interests of the state and the larger community of citizens override the well-being and safety of the individual, so the interests and well-being of a diverse network of ecosystems and the life forms they sustain can trump the interests of groups of individuals if those individuals threaten the continued well-being of the greater whole. So, according to this view, culling can only be ethically justified if a clear and convincing case can be made that it has a reasonable probability of solving an urgent problem *after all other options have convincingly been shown to have failed* (Lötter, 2006). Analogous to justifying a war in which fellow humans will be killed, culling can be justifiable only as an ethically flawed procedure to be employed under strict conditions. These conditions are as follows.

1. Culling can only be employed to deal with a serious and imminent threat to the continued existence of the rich diversities of the natural world. The intention must be to protect other living beings and their habitats from destruction or significant degradation. Elephants are too special to be killed for anything other than the most serious and weighty reasons (Whyte, 2002, 299).

When only the weightiest moral considerations can justify the killing of elephants, a decision to this effect must be grounded in the best possible information. Reasons for culling elephants must be firmly supported by the best available scientific information. One reason is that the behaviour and circumstances of these adaptable mammals vary quite dramatically. These variations between elephant populations in different geographic locations must be taken into account.

In terms of the preservation of the diverse individuals, species, landscapes, and ecosystems of the natural world, the impact of elephants appropriate for a conservation area ought to be set where that impact can still function to modify the habitat to set up spaces that provide living opportunities for other forms of life. However, the impact cannot cause long-term effectively irreversible degradation of the environment to the point that other populations are jeopardised (see Whyte *et al.*, 1999, 120). Thus, the interests of individual animals or an individual species are made subservient to the well-being of the larger whole.

The complexity of the judgement to determine how many elephants a particular conservation area can accommodate should not be underestimated. There are many variables to take account of and, seemingly, no general rules can be laid down for all climatic conditions and vegetation types. Aristotle's advice about the kind of judgement a virtuous person would make is apposite in a case where people deal with such variations. A virtuous person would not respond either too much or too little, but would respond at the right time, in the right amount, in the right way, and for the right reasons (Rosenstand, 2000, 350). Custodians of wilderness areas are required to make this kind of refined judgement that accurately fits the specific situation at hand.

2. Culling elephants is only ethically acceptable when all other less drastic options have been proven to be fruitless for solving the problem of overpopulation. Culling can never be the only option considered. All other options must be explored to determine if the killing can be avoided at acceptable cost to other interests. For this reason, wildlife managers must peruse all scientific information on all aspects of the elephant problem and be clear in their minds about the goals and purposes of their conservation area. Only if they have explored all other options diligently and urgently to no avail, can they seriously consider culling. If culling is chosen, it must be the only option left to

avoid a clearly defined and highly probable unacceptable outcome. Note that this stricture applies equally to many other forms of elephant management as well; all actions with large consequences must be carefully evaluated against their alternatives.

3. In the process of making a decision on culling, custodians of conservation areas and their scientific advisers must be just and fair in their judgements. They must be able to produce accurate, sufficient, and convincing evidence that the impact of elephants on the habitat of other species and their own has become destructive and excessive. Custodians, responsible for the natural world diversities in their care and accountable in democratic terms to concerned citizens everywhere, must sketch management alternatives, publicise their discussions and debates of the alternatives, and indicate the processes they followed to reach a decision.
4. The aim of culling must be to establish a 'just peace' – that is, a situation where elephants and all other living beings, individuals, and species, can prosper. If conservation managers choose culling they must ensure that they use just enough force to counter the threat, i.e. not one more elephant must be culled than is absolutely necessary. Thus, the number of elephants to be culled must be proportionate to the threat they pose. Only so many elephants must be killed as is necessary to achieve the objective. Our imperfect knowledge and the dearth of accurate foresight will make it difficult to judge correctly every time!
5. Are there elephants that should definitely not be killed, and some that should be killed regardless? In some cases there might be convincing arguments not to select certain elephants as part of a culling programme. One could argue a case that magnificent animals ought to be excluded from culling to be kept for tourist viewing – few people have had the privilege of observing huge tuskers since the ivory slaughter of the 1970s and 1980s in Africa. The case for not killing elephants in special relationships with humans needs almost no argument. For example, to kill elephants that are being studied by elephant researchers violates not only the lives of those elephants, but the emotional and psychological lives of the researchers as well. In addition, it seems pointless to wreck research projects and to waste precious intellectual and financial research investments.

Can one assume that elephants that escaped from protected areas and elephants that cause damage to human property or threaten

human lives should automatically be killed? Not so. When deciding this matter, one should take into account human responsibility for fencing protected areas, the cost of returning elephants to the wild, and the efforts required for successful rehabilitation of elephants in appropriate areas.

6. As much as possible of the physical evidence of a cull must be removed from the location of the kill for the sake of the remaining elephants. Elephants are very aware of death and fascinated by the dead bodies of their kin. They show specific reactions when they encounter an elephant carcass or merely dry elephant bones. Some elephant researchers suggest that elephants can recognise the identity of the remains of an elephant if they were known to each other. Carcasses and other evidence must be removed as soon as possible so as not to confront the remaining elephants with the signs of the slaughter and so instil fear in them. It is unimaginable to leave the carcasses for scavengers, fully exposed to the particularly sharp senses of the remaining elephants. It would also be grim to set up Auschwitz-like structures where the carcasses can be burnt.
7. If culling is justified in a specific case, then the meat, hide, and ivory must be used for the benefit of conservation agencies and to support research that ultimately benefits elephants and other species. Such use can also result in projects to set up imaginative partnerships with a conservation area's poor neighbours.

### **Methods of killing and their impact**

If elephants have to be killed, well-trained, professional teams should avoid prolonging any suffering by killing them as humanely as possible in as short a time as possible, and with the least possible disturbance. The killing methods must be as humane as current knowledge and technology allow. Issues that need careful attention are (1) how to reliably select a herd when all close family members are together and none has wandered off elsewhere, so as to avoid leaving some herd members behind on their own and deeply traumatised; (2) to know which animals to shoot first so that the herd does not run away in all directions and some escape the culling with terrible memories of the killings of family members, resulting in deep and long-term trauma; (3) to use only highly trained sharpshooters who almost never miss their target, so as to reduce the suffering of their last moments to a minimum; (4) to avoid using substances like Scoline that immobilise elephants so that they slowly suffocate to death while

still being conscious; (5) to use a method of killing that is as instantaneous as possible so as not to prolong the suffering caused by dying.

Current wisdom suggests that if elephants are to be killed, the best option is to cull whole family herds or bachelor herds (Chapter 8). One important reason for killing herds is that young orphaned elephants cannot become proper elephants without the teaching and guidance from older elephants. Elephant adolescents need a hierarchy of seniority determined by age and strength to keep their levels of aggression within limits (Meredith, 2001, 198). Recent scientific research on the occurrence of post-traumatic stress disorder in elephants exposed to the trauma of seeing family members killed suggests the effects of these experiences are significant factors to explain such delinquent behaviour (see Bradshaw *et al.*, 2005, 807).

The technical culling option that would result in the fewest number of elephants being killed to achieve population stabilisation would be to kill young female calves. This precludes their future breeding potential, and it is argued that culling this age group is merely simulating what would happen to this vulnerable age group in the elephant population during a severe drought (Chapter 8). They would be among the first ones to die anyway. Although it might be true, selective culling is still a drastic *human* intervention through lethal means that will cause suffering to the mothers, siblings and the extended family of such youngsters, and will deprive matriarchal herds of their child care assistants. Traumatizing elephant herds through human intervention known to them might also affect their behaviour towards humans.

How should we choose between these two options if they are the only ones available? Matters to take into account when considering culling a whole herd are as follows. No elephants will survive with deeply traumatic experiences that might induce behavioural changes that could take years to settle down, if ever. No elephant will remain that might develop a grudge against humans for killing its family members. However, such culling implies destroying a whole herd's genetic pool, which can diminish the genetic diversity of the larger population. Furthermore, the history of the herd will be wiped out, as embodied in decades of memory of acquired knowledge. The herd's unique set of behavioural traits and communicative skills will also be lost. Nevertheless, culling a whole herd is more an intervention in an ecosystem by taking out one 'unit' rather than an intervention in the social lives of elephants by taking out one or more of their family members.

To cull individual elephants raises serious concerns as well. Human intervention through selective culling may result in serious psychological trauma that could disrupt social behaviour for every herd targeted in this way.

To cull the same number of elephants as through the removal of a herd, many more herds will have to be traumatised through selective culling. But perhaps elephant herds are capable of dealing with the stress and trauma of individual deaths? One may doubt whether selective culling can be done without elephants detecting humans as the source responsible for the death of family members. For this reason elephant attitudes towards humans may deteriorate. Selective culling thus seems a much more direct and widespread human intervention in the personal and social lives of elephants that might have negative impact on their lives and their relationships with us, but this needs to be balanced against the smaller number of elephants, in total, that would need to be culled.

The remarks above are still speculative, as the impact and consequences of selective culling have not yet been adequately studied. This matter requires deeper reflection, as well as intense discussion between specialists and citizens.

## Hunting

Is it a good idea to allow the hunting of elephants? Elephant hunting is allowed in six African countries (South Africa, Zimbabwe, Botswana, Namibia, Cameroon, and Tanzania) at approximately R70 000 per trophy animal (Owen, 2006, 83). The controversy about hunting, says Chadwick (1992, 121), is 'universally such a bitter, emotionally charged disagreement'. Many committed conservationists are opposed to hunting on moral grounds, while others find it perfectly acceptable.

The arguments in favour of hunting African fauna and flora are as follows (see Fakir, 2006). Some people claim that humans have evolved in such a way that an 'instinct for hunting' became hardwired in their brains. For this reason it is part of human nature, a kind of instinctual drive that produces the desire to hunt animals. Some hunters acknowledge that part of the thrill of hunting is to experience the power of killing, of pursuing, outwitting, and eventually taking the life of a prime specimen of a species. This does not mean that a hunter has no sympathy with the prey.

The supporters of hunting point to its valuable consequences. As a result of sport or commercial hunting large areas of land are now again used for conservation purposes instead of cattle farming. The income from sport hunting is substantial and leads to significant job creation. In many cases hunters have ethical codes to regulate hunting adventures. Ideas about 'fair chase' abound that require the hunter to use tracking and other skills to outwit the animal. In some cases the hunter is required to confront 'the natural fierceness of the

animal, its threat to one's own life, and experiencing the fear of the hunt as the animal fears being preyed upon by the hunter' (Fakir, 2006). In this context the link between a particular conception of masculinity and hunting becomes clear as well. Learning to deal with danger, fear and the conflicting emotions accompanying deliberate killing is regarded as things that have educational value because 'it makes a man out of you' (see Fakir, 2006).

There are several arguments that oppose hunting. Whilst Fakir (2006) can see some role for hunting that has human survival or religious sacrifice as goal, he has little sympathy for sport hunting that serves the interests of a small minority of well-off people. He objects to the idea that the only value animals have is to be a 'pleasurable utility to serve the hedonistic needs of humans.' Besides the possibilities for abuse that have so often manifested in the past when governments allowed unregulated hunting, Fakir's biggest concern is whether hunting animals for pleasure and entertainment can in any way be squared with the regard we ought to have for animals, the moral standing we are obliged to assign them.

If elephants indeed have the moral standing we earlier in the chapter argued for, Fakir's ethical problem intensifies. If elephants in so many respects share the characteristics that give humans moral standing, can humans hunt them for fun, adventure, and the satisfaction of a presumed but unproven instinctual drive? The hunting issue thus becomes much more complex when hunting elephants is specifically considered. Hunting clearly has negative and harmful consequences on elephants, perhaps much more so than on any other species of African wildlife. One such negative effect is their hostile or nervous reaction to humans in response to being shot at.

Is it strange that hunters often describe regularly hunted elephants as 'very aggressive'? Not really, if we take into account recent research that suggests elephants too suffer from PTSD, almost just like humans. Bradshaw *et al.* (2005, 807) note that many wild African elephants display typical PTSD symptoms, like 'abnormal startle response, depression, unpredictable asocial behaviour, and hyperaggression.' They ascribe PTSD directly to elephant society being 'decimated by mass deaths and social breakdown from poaching, culls, and habitat loss.' Thus, killing elephants can have harmful consequences that persist for decades in elephant society, as 'trauma early in life has lasting psychophysiological effects on brain and behaviour' (Bradshaw *et al.*, 2005, 807). Whether controlled professional hunting has the same impact as poaching or culling is yet to be determined.

## Taming and training

Although this Assessment explicitly does not deal with captive elephants, the capture of elephants from the wild has sometimes been mooted as an alternative to culling them. Note that the South African Elephant Norms and Standards do not permit this. However, a brief discussion of the relative ethical merits of this option is included here for completeness.

Many people have firmly believed in the past that the African elephant cannot be tamed and trained.

Claims that new training methods are used that apparently successfully tame and train African elephants require careful scrutiny. The use of such tamed and trained elephants in the tourism industry in South Africa has not yet been studied in depth by scientists. A few preliminary ethical remarks can be made in the light of the available information (see Van Wyk, 2006a & b; 2007).

If their training could be judged ethically justifiable, if they belong to a newly constituted bond group, if they have a daily option of returning to the wild, and if the elephants are not required to do demeaning, humiliating tricks, are there any counter-arguments against the taming and training of elephants? There are strong arguments available. Some people consider the taming of African elephants unnatural and thus unbecoming such wonderful animals. Elephants ought not to be used as mere objects for commercial exploitation and also not as instruments for human recreational and tourist purposes either. Others judge it immoral to separate young elephants between the ages of 8 and 11 years old from family herds to train them, as they are still in need of the contact and guidance of the older elephants in the herd.

Most people find such close encounters with elephants awe-inspiring, much like the close contact between humans and dolphins. If humans who have had such experiences as a result of interaction with captive elephants develop a deep appreciation for elephants and fight for their survival in the remaining areas of African wilderness, have these elephants not served their species well as ambassadors of good will, rather than having been killed? Even if one can answer yes to these questions, taming and training elephants should not be done if appropriate respect cannot be shown to them. Whether taming and training allows proper respect for elephants requires further investigation and debate.

## CONCLUSION

Even before scientific information gives a clear and unambiguous picture of the nature and consequences of elephant overpopulation, the ongoing debate about the most ethical 'management plan' has to take place. We need to critically examine our moral values, assign them priorities, and choose which ones we are prepared to violate or ignore in our attempts to balance the competing claims they make and the contrary implications they suggest. Ethical matters that are not yet clear enough are the nature and current status of traditional African values on the environment and wildlife, the wisdom of selective culling of young elephants, the ethical acceptability of taming and training African elephants for the tourism industry, and the links between local action to prevent habitat degradation due to elephant impact on protected areas and global action to reverse human impact on the earth's biosphere.

The way we deal with elephants and one another in debating elephant issues betrays the quality of our humanity. Can we deal with deep moral conflict in ways that still show respect for one another and value one another's contributions to solve intractable moral problems? Can we continue the conversation regardless of our differences and still listen attentively to both the contents and justification of the viewpoints of our opponents? The deep emotions associated with the debate on elephants threaten to overwhelm the tolerance and critical reasoning we require for meaningful engagement through dialogue. Hopefully we can interrogate and engage our emotions fittingly so that we will always treat our opponents in debate respectfully as fellow human beings with dignity and equal worth.

Our humanity will also be tested in our interactions with elephants. Can we treat elephants appropriately as beings dependent on our benevolence for opportunities to live their lives according to their lights? Can we use our vast store of knowledge about nature, ecosystems, mammals, and elephants to fully respect elephants for what they are: beings so close to us and yet so impressively different? Through our astonishing cultural evolution we have become the most knowledgeable and powerful species ever to set foot on earth. Do we want to live up to our species name, *Homo sapiens*, in our interaction with elephants? Can we live as the 'wise beings', those who understand the most about all forms of life on earth? Can we then appropriately value elephant lives and accordingly act respectfully towards them?

Although the elephant issue is of minor consequence compared to, for instance, to the challenges of global climate change, both these matters offer

us an opportunity to question and revise how we live decent human lives on this planet.

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