A Study of Consciousness as an Ethically Significant Property and its Value and Significance in Human-Animal Conflict

by

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Dedication

I dedicate this to my family - Marion, David, Davy, Stanley, Oliver and Guinny - without your support none of this would have been possible. Thank you for your continued love and encouragement.

Abstract and Keywords

In this thesis I argue that current approaches to animal ethics, while valuable for solving cases of indirect conflict between humans and animals, are not equipped to deal with cases where humans and animals are in direct, unavoidable conflict with each other. Those approaches that focus on consciousness as ethically relevant factor however, are superior since they can make distinctions between individuals even with many other factors (level of interest in the conflict, sentience etc.) being equal. I also argue that it is reasonable to attribute consciousness to animals, and that consciousness is ethically relevant and identifiable in the behaviour of animals, even if not directly reportable though language for example. Building on this, I further argue that we can more accurately ascribe consciousness to animals through their intentional behaviour, rather than more traditional indicators such as tool use or language, both to those animals closely related to us and those that are very different to us. This consciousness has ethical relevance, and if we can determine the level of, or type of consciousness that each species in a direct conflict possesses, we can more effectively solve direct, unavoidable conflicts between humans and other animals.

Keywords: Consciousness, intentionality, ethical status, inter-species relations, direct conflict.

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Chapter 1: Introduction

1.1 Introduction

This thesis is born out of the desire to find answers to the problem of resolving human-animal conflict ethically. To introduce the problem, as well as the importance of the topic, I will first explain how the problem of conflict between humans and animals arises, and particularly what makes a direct conflict so problematic and seemingly unresolvable, compared to indirect conflicts[1]. I will also explain why this problem is not solvable through current approaches to animal ethics. Secondly, I provide an overview of each chapter, which come together to build the following argument: current approaches to animal ethics cannot solve cases of direct conflict between humans and animals. However, I suggest we can justify the use of consciousness as a foundation for ethical consideration, with different aspects of consciousness entitling one to different amounts of ethical consideration. We can also justify the presence of consciousness in animals, most successfully and accurately through a focus on intentional behaviour. Combining these two arguments I come to the novel conclusion that we can use an ethical approach based on consciousness to solve cases of direct conflict between humans and animals, particularly where other accounts of animal ethics fail. Finally, I will explain exactly what my contribution is, both in general to the field of animal ethics as a whole, as well as specifically to solving the problem of direct conflict.

1.2 The Problem of Human-Animal Conflict

Throughout the world there are many cases where the interests of people and animals are in conflict. These can be financial interests, either in cases where animals are used for profit, such as in the case of rhino poaching or animal trafficking, or in situations where animals do damage to property and cause profit to be lost, as is the case with jackal

[1] Terminology (such as direct conflict) will be explained as it is used. For a description of this and other essential terms, please refer to the glossary on page 169.

killing small livestock or elephants trampling crops. Other conflicts between people and animals are more direct, such as cases where animals cause physical harm to people, for example hyenas moving into human settlements and attacking people. And while most accounts of animal ethics are perfectly suited to accommodate problems where conflicts are indirect, case like these are not as easily solved. Hence the question I address in this study is to consider that if animals have consciousness, and this consciousness confers ethical status to those animals, whether it can offer a new perspective on how to resolve ethical dilemmas that arise when the interests of animals are in direct conflict with those same or very similar interests in humans. The reasoning behind this move is threefold. Firstly, I argue that consciousness is more ethically relevant than other features classically considered for ethical consideration, such as the ability to feel pain, intelligence etc. While these might be ethically valuable in their own right, I will argue that they are made possible through consciousness, so I choose to focus on what allows for all these capacities, rather than the capacities themselves. Secondly, because consciousness happens along a continuum, it allows for variations in how much ethical status it can confer, which is essential for any case of direct conflict; if equal consideration is given to both parties (while ideal for indirect conflicts), cases of direct conflict seem quite unresolvable. Finally, a focus on consciousness allows us to consider animals that are not traditionally considered deserving of ethical treatment, because they seem to lack specific capacities or qualities. By rather looking at the consciousness underlying many different types of behaviours, we can get a more accurate account of which animals are deserving of ethical consideration and why.

The problem of the ethical treatment of animals becomes particularly relevant when considering direct conflict between animals and humans. By conflict I specifically mean cases of conflict which are mostly unavoidable, and where the interests of both humans and animals are near equal in these cases. The case of factory farming for example, is not considered a direct conflict under this definition. This is neither unavoidable (in most cases where people have access to other sources for food) nor are the interests of both parties equal. Similarly, with cases such as circuses and trophy hunting, the interests of the animals in their own continued existence or general well-being are of a different kind

and override the enjoyment people get out of these scenarios. These cases have been dealt with in detail by animal ethicists such as Wise (2002), Regan (2004) and Singer (2009) and can also easily be solved by the approach I am suggesting; if animals are conscious, and that consciousness has ethical relevance, we should not treat them in ways that undermine that consciousness.

What I mean by 'conflict' here, is a conflict between interests that have more or less the same value, for example where the continuation of life is of interest to both parties. If we make the distinction between basic interests and peripheral interests, as VanDeVeer does (1979), there are basic interests, ones where the presence or absence of something makes it impossible for that individual to function as it normally would, and peripheral interests, which are not vital to these functions (*ibid*., p. 153). Direct conflict, using this terminology, is then when a basic interest conflicts with another basic interest, not when a basic interest conflicts with another individual's peripheral interest. In other words, in an indirect conflict, the conflict can be resolved without leaving either party significantly worse off. But in a direct conflict, there is no way to resolve the situation without one of the parties being harmed in some way. Examples of this will mostly be found in places where animals and humans share the same space and resources (although lab animals used in medical research could also fall under this type of conflict), and African countries provide ample examples.

Sometimes direct conflict arises when animals cause harm to property and so indirectly to people's livelihood, for example elephants trampling crops or jackal killing livestock. The following two cases illustrate such conflict. Firstly, in the 1960s, elephants in Uganda were destroying woodlands and habitats, and two thousand were culled under order of Idi Amin (Bonner 1993:101). Similarly, in Rwanda in the 1970's 106 elephants were killed following government orders, because farmers were losing crops due to elephants trampling their fields (*ibid*., p. 102). Secondly (ignoring for now the ethical question of farming livestock for food in the first place), black-backed jackal and caracal pose a serious risk to the small livestock industry, where the majority of livestock loss is attributed to them (Van Niekerk 2010: iii). The jackals are often legally killed through

measures such as gin traps, or illegally poisoned in an attempt to prevent this financial loss.

Coyotes pose a similar problem in the western parts of the United States. In 1999, coyotes caused the death of 39800 sheep and 126000 lambs, the equivalent of $ 9.6 million (Mitchell *et al* 2004:1209). There are many non-lethal control techniques that can be used, but they require time and initial financial input, so lethal techniques are often preferred, such as leg hold traps, snares and cyanide ejectors, even though studies show no relation between subsequent sheep loss and coyote deaths through these techniques (*ibid*., p. 1214).

Furthermore, conflict also arises when animals are directly used as livelihood, such as in the case of illegal poaching or trafficking of certain species. In 2015, 1175 known cases of rhino poaching occurred in South Africa, with most horns being smuggled to Vietnam to be traded in the form of tonics and medicines. Similarly, an estimated 100 000 pangolins, the most trafficked animal in the world, are smuggled to Asia each year. The African Savanna elephant's population declines by 8% every year due to poaching (EIA 2016:4), and at the same time they are often legally culled when they become too problematic or too many for a specific area.

The most striking examples of conflict, however, are when people and animals are in direct, physical conflict with each other. Hyenas often occupy the same living space as humans, and in 2002 six people were killed by hyenas in less than a month in Malawi, where people often sleep outdoors (BBC 2002). Similarly, the capital of Ethiopia, Addis Ababa, is host to between 300 and 1000 hyenas, who are known to attack people sleeping on the streets or digging up graves to eat corpses (Fletcher 2014). Current approaches to animal ethics do not give easy solutions to these types of conflicts.

Many of these approaches, such as that proposed by Peter Singer (1973), argue that preventing pain is always the most important value and cannot be sacrificed for any peripheral human interest. However, where human pain and animal pain are weighted the

same, such an approach can't offer ready solutions for the type of conflicts mentioned here. In fact, any view of animal ethics that puts humans and animals on the same ethical footing cannot make ethically relevant distinctions when the same interests are at stake for both parties. Singer himself acknowledges the following: "What, for instance, do we do about genuine conflicts of interest, like rats biting slum children? I am not sure of the answer..." (*ibid*., p.15). We can be sure Singer is not advocating that the rats' interests override those of the child, but that cases of direct conflict need more complex approaches. If all that is taken into consideration ethically is the ability to feel pain, or any other singular quality that cannot be had in degrees, that we share with animals, then cases of genuine conflict cannot readily be resolved.

There are of course some approaches that are able to give straightforward answers to these questions, such as radical speciesism on the one hand, and species egalitarianism on the other. Radical speciesism holds that it is ethically acceptable to treat animals in any way one sees fit (VanDeVeer 1979:152). In the above-mentioned examples then, human interest always overrides animal interest, where interest simply means something that it is good for the individual. For example, it might be in an animal's interest not to suffer (consciously or not), but in this case what would benefit a human (be in their interest) always overrides what would benefit an animal. Accordingly, poaching cannot be considered ethically wrong, and for example harm caused to elephants to protect property can be ethically justified. On the other extreme, species egalitarianism holds that the interests of humans never override those of animals, and in any given conflict both parties' interests are measured equally (*ibid*., p. 155). In the above example of a rat biting a slum child, the child's interests are no more important than the rat's, and neither's interests would get preference (of course assuming that both of these are basic interests). I argue that neither of these approaches give ethically acceptable solutions, and that an acknowledgement of consciousness as relevant for ethical status might offer more nuanced insight in such cases, specifically because it allows for gradations of ethical status. Consider the previous example again, the child has an interest in not being bitten, and the rat has an interest in biting the child's finger. If both these interests were weighted the same, there is no obvious solution to this problem, as both human and rat

are weighted equally. An approach where one party might be deserving of more ethical consideration than the other (in my argument more conscious than the other), we can not only make distinctions in cases of direct conflict, but distinctions which are ethically relevant and sound.

The novel focus of this study then, will be on considering the following: whether or not viewing possession of consciousness as a relevant factor for ascription of ethical status can offer new insight into resolving direct conflict between humans and animals. The study will centre on two arguments: 1) that different levels or aspects of consciousness are, not necessary, but sufficient[2] conditions for different levels of ethical consideration; and 2) that using aspects of consciousness, particularly as demonstrated through intentional acts rather than specific abilities, as a foundation for ethical status can offer novel insight into resolving human-animal conflicts.

1.3 Overview of the Argument

Having explained what the problem is, and explained the need for an alternative approach, we can now look at a brief breakdown of how the argument will be made. In chapter 2, I will begin with a breakdown of some of the most prominent theories that currently give us an account of what should be considered ethical behaviour towards animals, and the justification for these theories. I begin my discussion with utilitarianism, which has had a profound impact on the animal rights movement (Francione 1997:76), which focusses on the ability to experience pains and pleasures as ethically relevant factors. I also look at deontological approaches, such as those proposed by Tom Regan, where individuals are inherently valuable if they have qualities making them subjects-of-a-life. Both utilitarian and deontological theories struggle in that they create a sharp line between those that have ethical consideration and those who do not. They do not allow for gradations, or the possibility that ethically relevant qualities can be present in various

[2] I argue for consciousness as a sufficient, but not necessary condition for ethical status, since there may be other conditions for ethical status other than consciousness, such as inherent value, etc.

degrees. This in turn creates difficulty when both parties have the same ethically relevant characteristic in a direct conflict.

VanDeVeer's two-factor egalitarianism takes different cognitive and psychological capacities into consideration and may overcome this problem, particularly because it allows for different grades of ethical consideration. However, such grades create some problems of their own where it may seem that certain qualities are more relevant for determining worthiness of ethical consideration, and even within a single species the theory implies that if one individual has more of this quality than another, that they are somehow more deserving of ethical consideration. A graded approach that acknowledges capacities, but on a species (rather than an individual) level, such as Martha Nussbaum's capacities and flourishing account, does not run into the same problem. However, this approach, based on flourishing as a certain species, necessitates human intervention in any case where one species prevents the flourishing of another (such as predators hunting prey), and in cases of direct conflict falls back on utilitarian principles.

Next, I look at an African approach to environmental ethics, particularly through the Shona concept of Ukama, and the Nso worldview, which can be described as eco-bio-communitarian. These views, presented by Murove and Tangwa respectively, are unique amongst the others in that the focus is not on specific qualities of individuals, but rather on the relations between all aspects of the environment as part of the whole. However, I will demonstrate that such a view, while successful generally, also struggles to provide solutions to direct conflict.

Finally, I propose that a view based on consciousness as the basis for ethical consideration manages to avoid some of the problems raised by the above-mentioned accounts, since it can supply grades and therefore make distinctions between different individuals, but does not focus on any non-relevant characteristics like intelligence alone. Rather we can use these characteristics, like intelligence etc., as indicators of consciousness, which I will argue is the truly ethically relevant factor.

Having shown the problems with many current approaches to animal ethics, particularly in how they deal with direct conflict, and having demonstrated that an approach based on consciousness fares the best, in chapter 3 I will defend the view that consciousness can be considered a natural phenomenon, and a natural adaptation that is beneficial to the individual that possesses it. If consciousness is going to be used as a foundation for ethical consideration in animals, it needs to be clearly demonstrated that it is in fact present in animals. To do so, consciousness in animals first needs to be shown as possible and likely in species other than humans, and I argue that it can arise as natural adaptation through natural processes, through the neurobiological arguments of Antonio Damasio and Jaak Panksepp. Here I will distinguish between four types of consciousness, affective, access, phenomenal, and self-consciousness. This combination of the physical underpinnings of consciousness, along with the evolutionary possibility that it could arise as an adaptation, give weight to the argument that animals possess consciousness as well.

After this I address three objections to consciousness as natural adaptation in animals; Firstly, the argument that even if animals are in fact conscious, there is no reasonable way to know this, which is essential if we are to base ethical consideration on consciousness. However, using cognitive ethology as a basis, I argue that it is reasonable to infer consciousness from behaviour. Secondly, I look at the argument that consciousness plays no role, or a very minor role in our decision-making, as exemplified in the Libet experiments. Finally, I look at the objection that consciousness offers no useful advantage and might not be present in animals at all, and the claim that if behaviour is considered valuable when it is performed, there is no need to be consciously aware of it. These last two objections undermine the idea that consciousness would have arisen in animals as adaptation, since as long as the action that is taken can be considered valuable, there is no need for conscious awareness of that action, as we see many animals function in seemingly intelligent, conscious ways even though they arguably possess no qualities of consciousness. I will argue that animals that can reasonably be assumed to be conscious live much more complex lives, and cannot rely on unconscious responses to their environment only. Having shown that consciousness can arise as an adaptation in animals other than humans, given similar neurological substrates, I will then argue that

consciousness can confer ethical status, and that different degrees of consciousness correspondingly confer more or less ethical status to the individual that possesses it, in chapter 4. By looking at the theories of animal ethics explored so far, including those by Singer, Regan, VanDeVeer, Nussbaum and Wise, we will see that consciousness in some form is ethically relevant for all of them, and that some forms of consciousness are regarded as more ethically relevant than others for different thinkers. I will continue to look specifically at self-, access and phenomenal consciousness (I also look briefly at affective consciousness, which does not confer the same kind of ethical consideration), in more depth than I have done before, to see specifically what it is about each aspect of consciousness that makes it ethically relevant. Phenomenal consciousness is more easily regarded as ethically relevant, since it gives the individual concern for itself, as is self-consciousness, which provides an *I* or self to be concerned about. This does not, however, mean that access consciousness has no ethical relevance; although it might be the case that access consciousness may be possible without any phenomenal consciousness needing to be present at every given moment. I will make the case that the very existence of self- and access consciousness in an individual implies at least some form of phenomenal consciousness, since phenomenal consciousness forms the foundation for the other two. It seems quite essential for self-consciousness, and though it need not always accompany access consciousness, access consciousness cannot exist without some form of phenomenal consciousness being present first. Hence any individual who possesses access or self-consciousness, also possesses phenomenal consciousness and the ethical status that accompanies it.

If phenomenal consciousness, even in a very limited form, is necessary for self- and access consciousness, and these can more easily be inferred from behaviour than phenomenal consciousness (since we cannot prove outright that any other individual has something that it is like to be itself), then self- and access consciousness can be used to infer phenomenal consciousness and the ethical status it confers as well. This, however, does not necessarily mean that self- or access consciousness in themselves have no ethical value, however much of the value is derived from the fact that it is an indicator of phenomenal consciousness. Self-consciousness provides a self to be concerned about and

is also valued in itself, and access consciousness, particularly the ability to represent mentally is valuable to the continued wellbeing of the individual equipped with it.

Having demonstrated that we can infer different types of consciousness, particularly phenomenal consciousness, from access and self-consciousness, we can move on to illustrating that these types of consciousness are indeed demonstrably present in animals in chapter 5. To do this though, we will need to definitively argue that inferring consciousness is the most likely explanation for animal behaviour. While this will be done to a large extent in chapter 3, here a final argument will be presented, not only for the accuracy, but also for the usefulness of views on animal behaviour such as cognitive ethology, that take consciousness into account, compared to views such as behaviourism, which don't. Here I will also look at Dennett's proposed methodology for ethologists, where a scale of intentionality can be used to explain behaviour.

Building on this argument- that taking consciousness into account gives us the most accurate presentation of animal behaviour- I will then consider which behaviours would be indicators of which kinds of consciousness, and look at specific illustrations of this. I will look particularly at three aspects of consciousness, access, phenomenal and self-consciousness, and tie these types of consciousness to Dennett's scale of intentionality, creating a loose tie between different levels of intentional descriptions of animal behaviour and different types of consciousness. Hence, I will argue that if we can attribute a level of intentionality to an animal's behaviour, we can attribute a certain type (or types) of consciousness as well. Firstly then, I will argue that intentional behaviour is an indicator of different levels of mental representation and aspects of consciousness. Secondly, I will look at which levels of intentionality can be attributed to different behaviours, how these and the accompanying mental representation would require certain types of consciousness. Finally, I will also address specific objections in each case.

What I will do in chapter 6 is apply all that has been done to concrete cases of direct conflict between humans and animals, particularly in an African context. Here we often find cases of direct conflict between animals and humans, or cases where the promotion

of animal welfare leads to the suffering of humans. While not a uniquely African problem, this mostly happens in places where people are directly dependent on their environment and the animals in it for survival, where fencing off an area to become a wildlife sanctuary takes resources away from the people living there, where the prevention of illegal trapping means starvation for someone, where a ban on animal trading or poaching means a loss of essential income, and so on. The particular case I will look at is in the situation in the Amboseli region in Kenya, where elephants and humans compete for the same resources, and elephants pose a direct threat to humans, particularly through crop destruction and creating a generally unsafe environment for people.

Firstly, I will demonstrate how other approaches, namely utilitarianism, deontology, cognitive capacities, capacities and flourishing, as well as an African environmental ethic fail to offer adequate solutions to this specific problem, and why even an approach based purely on consciousness might be problematic if intentionality is not taken into account. Then I will apply my approach, using intentionality to attribute more specific aspects of consciousness to the animal in question. I will then look at what ethical consideration this type of consciousness confers on the individuals concerned, and what solution it would offer. Finally, I conclude that an approach to animal ethics focussing on consciousness, specifically as indicated through intentionality, is superior to other approaches to animal ethics, and can offer reasonable solutions to cases of direct conflict between humans and animals, particularly where others cannot.

1.4 Contribution to the Field

Before even considering whether animals can have any claim to ethical consideration based on consciousness, one must make an argument that animals do in fact possess consciousness. Secondly, the ethical treatment of animals is not something that is taken seriously by many people (Midgley1998:9). Finally, finding consistent ethical solutions in situations where humans and animals are in direct conflict still poses a very real problem to current views on animal ethics. I hope to contribute to this field by elaborating

on the work already done on the first two problems, and, specifically, adding a novel approach to the third.

Regarding the first problem, De Waal states the following: “Anything related to consciousness has been hard to accept in other species. We have growing evidence for qualities like episodic memory, future planning, and delayed gratification in non-human species, yet there is still a tendency in scientific circles to deny that animals are more than mere stimulus-response machines” (2016:229). But as De Waal states, “(e)ither we abandon the idea that these capacities” (episodic memory, delayed gratification and future planning) “require consciousness, or we accept the possibility that animals may have it, too” (*ibid*., p. 229). I elaborate on this problem in particular in chapter 5, where I demonstrate that not only are there serious scientific and philosophical reasons to attribute consciousness to animals, but that not to do so is unsound and provides us with flawed or unusable explanations of animal behaviour.

While there are many arguments for the ethical treatment of animals and many who support these views, Mary Midgley sums up the second problem of considering animals ethically: “The whole question (of our ethical relations with animals) is hard to fit into our ethical system. Arguments for taking it seriously tend to be dismissed rather than met, to be stigmatized wholesale as perverse, sentimental, emotive, childish, impractical, superstitious, insincere – somehow not solid” (Midgley1998:9). This emphasises the need for more serious work to be done in this area.

My work contributes to this area in particular, as far as it looks beyond factors that traditionally give us ethical concern for other species. In general, the more closely related to us a species is genetically, the more concern we have for it. Similarly, if animals are cute, or we have some personal attachment to them, we seem to consider them more worthy of ethical consideration. Hence we balk at the idea of eating dogs but not pigs, even though they might be equally sentient or intelligent, or whichever quality we argue is ethically relevant. Species that are threatened or in danger of extinction are also many times awarded special consideration. This is because there are few of them or because

people value that species' existence. None of these concerns has to do with what an animal is capable of consciously experiencing or consciously suffering. And while there may be ethical arguments for the preservation of a species, this cannot carry the same weight as that of a conscious, experiencing individual.

There are also some qualities that are usually considered more important, or that make an individual more deserving of ethical consideration. Animals that can communicate, use tools, or pass a mirror self-recognition test are usually given preferential treatment. But this excludes the majority of animals and focusses on qualities typically valued by human beings. In fact, there is no single quality typically considered ethically valuable in animals that human beings do not share as well. These characteristics, such as tool use etc., might be indicators of consciousness of course, but just because an animal doesn't demonstrate these qualities does not mean they are not conscious. This is where an approach that looks particularly at the intentional behaviour towards the world, and not only specific capacities, can give us a sounder view of what constitutes consciousness, and so, ethical consideration.

Finally, I make a novel contribution to solutions to the problem of direct conflict, where I will be focussing particularly on cases from Africa. These can be where animals are used as livelihood, such as in the case of rhino poaching, or in situations where animals do damage to means of livelihood, as is the case with jackal killing small livestock or elephants trampling crops. Other conflicts between people and animals even are more direct, for example hyenas moving into human settlements and attacking people. The question of how much ethical consideration can be given to animals in the case where they actively do harm is especially interesting because the concern usually falls mainly on the consequences for humans, whether in financial terms, such as a loss of crops or livestock, or in actual bodily harm.

Consciousness as an ethically relevant factor can draw attention away from consequences such as the abovementioned and onto the individual being considered, whether human or animal, and can throw light on how to deal with direct human-animal conflict. Current

approaches, with the focus on the ability to suffer, being a subject-of-a-life, practical autonomy, cognitive abilities or relationality seem unable to give answers to these cases consistently and conclusively, as will be demonstrated in chapter 2. Some, like Regan, do propose principles to deal with conflict, but these (while useful when considering for example the large-scale slaughtering of animals for food), do not offer easy answers to the question of direct conflict, which my approach will do. My argument is that if possessing different levels of consciousness can be shown to be a sufficient condition for ascribing different levels of ethical status, then this will elucidate direct human-animal conflict in novel ways, and give solutions which, at the moment, other theories on animal ethics cannot provide.

1.5 Conclusion

To conclude, the unique contribution that I would bring to the field of animal ethics is to offer the following argument: that an approach based on showing that possession of levels of consciousness can function as sufficient condition for different levels of ethical status clarifies cases of direct human-animal conflict in novel ways. What makes my approach different is a focus on intentionality, which doesn't lead to the exclusion of animals that might not show particular indicators of consciousness, but still might be highly conscious. It also manages to move beyond attributing consciousness only to animals that are evolutionarily close to us, or happen to have certain qualities that are not in themselves necessarily ethically relevant. And where other theories struggle, mine can give us viable and ethical solutions in the case of direct conflicts. We begin then, with a look at current theories on animal ethics, and their shortcomings when it comes to solving cases of direct human-animal conflict.

Chapter 2: Current Approaches and their Shortcomings

2.1 Introduction

In this chapter, I will consider some of the most prominent theories that currently give us an account of what should be considered ethical behaviour towards animals and the justification for these theories. I will also consider possible objections to these accounts, as well as whether or not they offer solutions to direct human-animal conflict, and determine whether an account based on consciousness as ethically relevant factor can provide a better account of how to solve direct conflict between people and animals.

I begin my discussion with utilitarianism, which has arguably had a profound impact on the animal rights movement (Francione 1997:76). Utilitarianism is however open to much criticism, some of which can be overcome by deontological approaches. Deontological approaches, such as those proposed by Tom Regan, place the importance on the individuals themselves and not only in their ability to feel pain, as is the case in the utilitarian argument. Deontological theories, in their turn, however, create a sharp line between those that have ethical consideration and those who do not, and do not allow for gradations, or the possibility that ethically relevant qualities can be present in various degrees.

VanDeVeer's two-factor egalitarianism takes different cognitive and psychological capacities into consideration and may overcome this problem, particularly because it allows for different grades of ethical consideration. However, they create some of their own where it may seem that certain qualities are more relevant for determining worthiness for ethical consideration, and even in a single species, that if one individual has more of this quality they are somehow more deserving of ethical consideration. A graded approach that acknowledges capacities, but on a species (rather than an individual) level, such as Martha Nussbaum's capacities and flourishing account, does not run into this problem. However, this approach, based on flourishing as a certain species, necessitates human intervention in any case where one species prevents the

flourishing of another (such as predators hunting prey), and in cases of direct conflict falls back on utilitarian principles.

An approach that does not look at specific qualities of any individual, but rather at how these individuals stand in relation to each other, is found in African environmental ethics. It creates a unique way of attributing ethical consideration, particularly because it is not burdened by having to select and justify the ethical relevance of any one specific quality an individual can possess. Yet when it comes to direct conflict, the importance of relations rather than individuals proves problematic. Finally, I propose that a view based on consciousness as basis for ethical consideration manages to avoid some of the problems raised by the above-mentioned accounts, and can offer better solutions in cases of direct human-animal conflict.

2.2 Utilitarianism: The Sentience View

Peter Singer, in his book *Animal Liberation* (2009), creates a case for direct duties towards animals through a utilitarian argument, where ethical consideration is directly related to the ability to feel pain or pleasure, which in turn allows for the possibility of having interests, or preferences. I will briefly outline how this ability gives rise to equal consideration, and why not acting in accordance with this principle constitutes speciesism, especially when looking at marginal cases. Rule utilitarianism will also briefly be considered, which is similar in its foundation, but different in terms of its application. I will then consider possible objections to or shortcomings of a utilitarian argument, especially in relation to how it proposes to solve direct human-animal conflict. Singer derives ethical obligations towards animals from what is generally called the sentience view, sentience described as "a convenient if not strictly accurate shorthand for the capacity to suffer and/or experience enjoyment" (Singer 2009:8-9). He uses a utilitarian argument taken from Bentham, where suffering is the main criterion for ethical consideration. "The question is not, Can they *reason*? Nor Can they *talk*? But, Can they *suffer*?" (Bentham in Singer 2009:7). Singer argues that, given that nonhuman animals experience pain and pleasure, we cannot ethically justify regarding their pain or pleasure

as any less important than the pain or pleasure of humans (2009:15). Singer justifies this argument by stating that it is precisely the capacity for suffering that is the "vital characteristic" that bestows equal consideration (Singer 2009:7).

Thus far we have a very act-utilitarian account, however Singer goes beyond pains and pleasures, to give an account called preference, or interest utilitarianism. However, the importance of being able to experience pain and pleasure remains essential. "The capacity for suffering and enjoyment is a prerequisite for having interests at all, a condition that must be satisfied before we can speak of interests in a meaningful way" (*ibid*., p.7). Interests, for Singer, are desires or preferences that animals have, of which they are aware. And while all sentient animals have a preference to not suffer, some animals can have more complex ones, such as the preference to go on living (Singer 1993:124), which makes killing them, even painlessly, ethically wrong. The ability to suffer or experience pleasure remains the central ethically relevant characteristic, but different individuals can suffer more or less, and in different ways.

He further defends his principle of equality (which based on the above does not necessarily mean equal treatment) with the argument from marginal cases. According to this argument, if language, or the ability to express pain or pleasure through language, were the basis of ethical consideration, then humans without this ability would not qualify. Singer mentions marginal cases where humans, such as children or brain damaged adults, have less "awareness, self-consciousness, intelligence and sentience" (*ibid*., p. 239-240) than other animals. If we would not treat those humans the same way we treat animals, for example performing experiments on them, then by the same logic we should not treat non-human animals in similar ways. In Singer's view, refusal to follow this reasoning makes us speciesist.

Speciesism (analogous to racism or feminism) is defined as: "…a prejudice or attitude of bias in favour of the interests of the members of one's own species and against those of members of other species" (*ibid*., p. 6). Singer claims that, if we were to accept the argument from marginal cases, the only reason why we have less consideration for

animals that are not human is because they do not belong to our species. The argument from marginal cases serves to demonstrate that human beings do not have a claim to their ethical status because of higher levels of intelligence or self-consciousness or awareness, but rather because of their species membership. For Singer, this is an unjustifiable basis for excluding animals from ethical consideration, just as race and sex are not justifiable bases for discrimination.

We can also consider a slightly different approach such as rule utilitarianism, which works on the same foundation as the above, but its application is different. Rule utilitarianism broadly holds that pain and pleasure are ethically relevant, but rather than measuring these in every single instance, we should formulate rules that, in the long term, promote the greatest good. This overcomes some of the problematic consequences of simpler versions of utilitarianism, as discussed below. It also grants an inviolable ethical status to human individuals, based on rules that would promote overall utility in the long term. When this is applied to animal ethics, it arguably leads to the conclusion that animals, while owed certain duties, cannot be considered as having any absolute ethical standing in themselves. Since animals cannot worry about potential harms caused by rules (like a rule stating that animals could be killed out of necessity), these rules will not cause any animal distress. Hence we not need to attribute any inviolable ethical status to them, and this would allow us to harm animals when necessary (Galvão 2016:395).

To conclude then, Singer presents an argument for the equal ethical consideration of all animals that experience pain and pleasure. From both a scientific and a philosophical perspective, he demonstrates that non-human animals have this ability, and this forms the basis of his utilitarian argument. Any deviation from equal consideration for species that can experience pain is considered speciesism, which he further justifies with the argument from marginal cases. Similarly rule utilitarianism acknowledges that rules should be set in place to promote the greatest good, and sentient animals should also be considered under this good. However, under this view animals would still fare worse compared to humans or at least will be considered to a lesser extent than humans in the case of direct conflict, simply because they cannot suffer from the foreknowledge of a

rule allowing them to be harmed. Simply then, this view does not seem to provide us with the tools necessary to resolve direct conflict.

2.2.1 Shortcomings of Utilitarianism

This view does have several shortcomings that I will explore in this section. I will start with a general critique of utilitarianism, before looking at shortcomings that arise particularly as it is applied to animal ethics. The first specific shortcoming then, is that it leads to generally unacceptable conclusions when answering questions of what is considered ethical. Secondly, one can argue that the ability to feel pain is not an adequate foundation for ethical status. Finally, the utilitarian argument falls short in offering solutions to human-animal conflict, and is in fact a type of argument generally used to justify cases where peripheral interests of people override direct or basic interests of animals (basic interests here meaning interests that generally involve not suffering or dying, and peripheral interests are any other interests not directly relating to the avoidance of suffering). The problem that arises here is how preferences are meant to be accurately and fairly measured against each other, such as in the case of animal experimentation.

Before delving into specific objections in relation to animal ethics, we can briefly consider the more general problems. Act utilitarianism is usually critiqued most strongly by the fact that peripheral interests, if there are enough of them, can outweigh direct interests. Singer's preference utilitarianism recognises that different individuals can suffer more or less even from the same harm, but if this harm is measured on a single scale, then this problem still stands. Furthermore, as interests or preferences for him are impossible without sentience, any arguments that pain and pleasure are inadequate foundations for ethical consideration, or impossible to measure accurately, apply to his account as well.

The second serious problem with act utilitarianism is that its focus on pain and pleasure at a given moment leads to a complete disregard of any inviolable ethical status an

individual may have, or the separateness of entities. While rule-utilitarianism avoids this pitfall, as well as the first one, it tends to fall back to act utilitarianism when pushed. When faced with allowing for exceptions, such as when performing an act goes against a given rule but would provide a large amount of happiness, a rule utilitarian is forced to either revert back to act utilitarianism, or become so strictly adherent to the rules that there is no room for exceptions, even when those exceptions would amount in a huge amount of good for all involved (Rachels & Rachels 2012: 120). Either they must undermine the focus on rules, or undermine the focus on promoting pleasure and avoiding pain. This is particularly important when it comes to cases of direct conflict: while we might come to a general rule that animals should not be harmed, direct conflicts are precisely exceptional cases where general rules do not work. This we see that, despite their differences, both preference and rule utilitarianism are subject to many of the same critiques that the classic account is subject to.

To return to our main argument then, regarding the conclusions that follow from a classic utilitarian account, a lifeboat example is often used. In the example of an overcrowded lifeboat, where one must be thrown overboard, a person and a dog have the same basic interest at stake, and the same amount of utility is lost whether the dog or the person is thrown overboard (VanDeVeer 1978:157). This claim is based on the view that an animal has exactly the same ethical status as a person if they both roughly experience the same amount of pain in a given situation. This example of the lifeboat also illustrates a hypothetical example of direct-human-animal conflict, where a basic interest of an animal and a basic interest of a human being is in conflict, if it is the case that either the animal or the human has to be thrown overboard. I will discuss the case of direct conflict shortly, but here already we see that the utilitarian argument does not supply an easy solution to these kinds of conflict. Singer, through his focus on preferences seems to have a more adequate response, since we can argue that the death of a human causes more suffering than that of a dog, since the human can anticipate or dread future events to a larger extent. Yet on the other side, humans can understand death and rationalise it, which might again take away some aspects of suffering, which will not be the case in an animal we cannot explain things to. Furthermore, we run into the problem that without any

inalienable rights, individuals remain receptacles of value only; so even if a human were to suffer more greatly from death, there should be a number of dog's deaths that would outweigh the death of a human.

Pojman, a critic of Singer's view, elaborates on the possible consequences of this view, arguing (2004:60) that if we stick to utilitarian principles, the life of a pig in good health means more than that of a human being who is severely retarded, since the pig is capable of experiencing more happiness than the human. He continues to say that if it could be determined that pigs naturally have a greater capacity for happiness, or if the world could support a significantly larger amount of pigs than humans, "a world human population just large enough to support an enormous pig population might be the utilitarian optimum" (*ibid*., p. 60). He elaborates on this and argues that in this context some medical experiments on people might be justified if they can improve animal health to a large enough extent. Both this and the lifeboat example lead to conclusions that a reasonable person would find difficult to accept.

Furthermore, the ability to feel pain as a criterion for conferring ethical status is also problematic. This problem lies with more complex forms of utilitarianism as well, such as rule utilitarianism. Even though the application of it might be different than act-utilitarianism, the underlying ethically relevant factors are the same. Utilitarian thinkers try to find a characteristic for ethical status that is universal, and the ability to feel pain and pleasure seems to fulfil this difficult criterion. However, even this ability is not necessarily a universally shared characteristic. When someone loses the ability to feel pain, such as in the rare condition known as 'congenital universal indifference to pain', or when persons are under the influence of anaesthesia or in comas (Fox 1978:110), we do not automatically assume that they therefore no longer have any ethical status. However, if we follow utilitarian logic this is precisely the conclusion we are forced to make, since the ability to suffer and to enjoy is the foundation for ethical consideration. Even preference utilitarianism is founded on the argument that preferences are impossible without this ability, and it therefore seems inadequate for a full account of ethics.

In addition, if we consider the specific case of inter-species conflict, utilitarian accounts, such as Singer's, where human pain and animal pain are weighted the same, do not seem to offer ready solutions. Singer himself acknowledges the following: "What, for instance, do we do about genuine conflicts of interest, like rats biting slum children? I am not sure of the answer..." (2005:15). We can be sure Singer is not advocating that the rats' interests override those of the children, but rather that cases of direct conflict need more complex approaches than what utilitarianism seems to be able to offer. If all that is taken into consideration is the ability to feel pain, then cases of genuine conflict cannot readily be resolved.

Furthermore, while Singer's utilitarian argument is intended to promote the ethical treatment of animals, in many cases, such as when animals are used in scientific experiments, utilitarianism is also the theory that forms the foundation for the justification of such experiments. The use and the results obtained from animal experimentation may be very beneficial to humans, making at least some animal experimentation a case of direct human-animal conflict, and here utilitarianism is often applied to see if the harm caused to animals through these experiments outweighs the potential benefits for humans. Utilitarianism also allows for peripheral interests to override basic interests so long as the utility received from those basic interests is less than the utility received from peripheral interests, so even experimentation that is not necessary could be justified in this way. Again, as long as a single scale of value is used, even preference utilitarianism is subject to this criticism. Similarly, since some accounts of rule utilitarianism do not accept that animals have inviolable ethical standing, there is nothing necessarily preventing situations like this.

Experiments that cause harm to animals are therefore commonly judged ethical with reference to a harm-benefit analysis. The terminology of these analyses has changed over time from cost-benefit, to risk-benefit, to the preferred, harm-benefit analyses (Bronstad *et al* 2016:3). This is to more accurately account for what is being measured, as well as to account for the fact that animals themselves cannot be said to take these 'risks'. 'Harm' more accurately refers to the suffering experienced by the animal during the experiment.

In animal studies where the animals involved in the experiments experience harm, this harm is measured in the currency of pain, distress, or suffering. The potential benefits, which are for an entirely different group of individuals (and in the case of medical research usually for a different species altogether), are often difficult to measure (Bronstad *et al* 2016:3)[3]. This difficulty in measurement obviously lies to some degree with the predictive nature of science, but it illustrates that the foundational characteristic of utilitarianism, as pain or pleasure measured on a single scale, is problematic to apply practically. This problem would apply equally to rule utilitarianism, particularly in questioning whether rules that promote overall wellbeing are based on actual or predicted outcomes.

The South African Medical Research Council aims to only support "studies which contribute to the understanding of biology and environmental principles and to the acquisition of knowledge that can reasonably be expected to benefit humans, animals or the environment" (2004:1). So in this case the benefits are of a different type than the harms, experienced by a different type of being. A common critique against utilitarianism in general appears here again; the difficulty of measuring harms and benefits on a single scale. Here we also see the trouble with predicting future results and accurately knowing whether the benefits will outweigh the harms, as we can only 'reasonably' expect beneficial results of such experiments. In general, the amount of human clinical utility during these cost-benefit assessments of animal studies appears to be overestimated widely (Knight 2011:291).

This single scale of value remains problematic even when only applied to the harm side of a harm-benefit analysis, both for act and rule utilitarian accounts. How do we determine what causes more pain? Does the same thing cause the same pain in different

[3] Note here that while experiments are routinely performed on humans as well, their consciousness allows them to understand and consent to them. Animals however, as moral patients do not possess this ability and thus, even though they might be less conscious, should not rather be experimented on in non-direct cases

species, or even different individuals? And if we switch from considering pain only, and rather concentrate on preferences/interests, which can be more complex, we are still fundamentally measuring the ability to suffer, but taking into consideration that different animals can suffer more or less. For example, an animal with a memory or the ability to anticipate can suffer more, but this just means that they are bigger receptacles for pain and pleasure. Studies on animals are usually done according to a severity scale where, depending on the type of pain and the duration, different impact ratings are given to different studies. A study such as one focused on terminal euthanasia is given a low impact rating, because even though the animal is killed, it does not experience significant pain or distress during the process (*ibid*., p.292).

If utility is the only factor that is considered, the ethical problem of killing is not addressed. Killing in itself cannot be seen as ethically wrong, if it does not cause any pain, or if the individual cannot be said to have an interest in not dying. While animals might struggle against dying, this is not sufficient to say that they have a concept of their own mortality and a particular preference about it (Regan 2004:207). Similarly, surgeries that cause significant damage, but where this damage is not prolonged and can heal, they are also considered as moderate impact in non-human primates, whereas in reality these interventions arguably have a severe impact on the animal concerned (Knight 2011:292), indicating the practical difficulty in applying utilitarian arguments, as well as the underlying problem that pain or pleasure, or even preferences as foundation of ethical consideration is problematic.

To conclude, we see that a utilitarian approach, based on sentience, namely, the ability to experience pain or pleasure as ethically relevant factor, manages to avoid speciesism by attaching the same value to the pain and pleasure of humans and animals. The conclusions it leads to, as well as the argument that the ability to feel pain or have preferences is the only ethically relevant factor, are however both problematic. Utilitarianism also fails to offer solutions to cases where humans and animals are in direct conflict with each other, since both parties are considered to have the same basic interests, as elaborated on in the lifeboat example. Finally, in practice, utilitarianism ends

up being used to justify cases where peripheral interests override basic interests such as in the case of animals used for research, which is precisely what Singer's argument tries to prevent. Singer's view tries to put all animals (human and non-human) on even footing, but this cannot offer any solutions for cases of unavoidable human-animal conflict. It can offer guidance in stating that the number of individuals harmed should be minimised, but it cannot tell us who's interests should be valued more (all other things being equal), nor can it attach any value to an individual beyond their ability to experience pain or pleasure. A deontological approach, where individuals have inherent value and cannot be treated as merely a means, manages to avoid some of these problems.

2.3 Deontology: The Animal Rights View

Tom Regan advocates a deontological theory of animal rights. He makes the argument that animals get their status from rights, not from utility as Singer maintains. On Regan's view, a 'subject-of-a-life' (defined in the next paragraph) has inherent value and requires respect. He says (2004:245) that if we ascribe value to all humans regardless of their ability to be rational, we ascribe this value to them because they are subjects-of-a-life. To be consistent, this value needs to be ascribed to every subject-of-a-life, whether they are moral[4] agents or moral patients. He also accounts for when these moral statuses are in conflict or overlap, via what he calls the miniride and worse-off principles, which claim respectively that if we have to override rights, we should choose those of the smaller group, and that the lesser of two harms should always be chosen. Both these concepts will be elaborated on shortly.

Regan's argument, which has a Kantian ring, states that any subject-of-a-life has inherent value and rights, which forbids others from treating them as a mere means. Entities or beings that are subjects-of-a-life have equal value, and no subject-of-a-life has more rights than another (*ibid*., p. 245). But these rights, for Regan, are not dependent on

[4] Regan uses the term 'moral', while other thinkers referred to in this chapter use the term 'ethical'. For the purposes of this chapter, the terms have similar enough meanings, and are used interchangeably.

rationality only, as Kant would suggest. Rather, being a subject-of-a-life is determined by the following factors:

[Being a subject-of-a-life] “involves more than merely being alive and more than merely being conscious. ... individuals are subjects-of-a-life if they have beliefs and desires; perception, memory, and a sense of the future, including their own future; an emotional life together with feelings of pleasure and pain; preference- and welfare-interests; the ability to initiate action in pursuit of their desires and goals; a psychophysical identity over time; and an individual welfare in the sense that their experiential life fares well or ill for them, logically independently of their utility for others and logically independently of their being the object of anyone else's interests. Those who satisfy the subject-of-a-life criterion themselves have a distinctive kind of value – inherent value – and are not to be viewed or treated as mere receptacles” (*ibid*., p. 243).

Regan looks at multiple justifications for certain animals satisfying this subject-of-a life criterion, such as primates using sign language to communicate with humans and each other (*ibid*., p. 12) and evidence from evolution that claims that consciousness has an adaptive advantage (*ibid*., p18) which combines in a cumulative common-sense argument for animal consciousness (*ibid*., p. 25). He takes this argument further through arguing that certain animals have beliefs and desires guiding their actions, based on evolutionary links and behavioural similarities between these animals and humans (*ibid*., p.36). These arguments will be examined in detail in Chapter 5, but for now it is sufficient to say that there are justifiable reasons for assuming some animals can meet the requirements needed to be a subject-of-a-life.

Any animal, human or otherwise, possessing the above-mentioned qualities (having beliefs, memory etc.) is considered a subject-of-a-life, but what is then required of, or owed to, a certain individual might be different, dependent on whether they are moral agents or moral patients. Moral agents are individuals who have the ability to choose between acting morally and immorally by the use of a variety of mental abilities. Moral agents can be held morally accountable for what they do in most cases. Moral patients, on

the other hand, do not possess the qualities necessary to control their actions in such a way that they could be held morally accountable for them (*ibid*., p. 151-152). These individuals cannot do right or wrong, or be held morally accountable for their actions, but can be subjected to right and wrong treatment. So even though both humans and certain animals can be granted the status of being subjects-of-a-life, to be considered a moral agent requires the particular ability "to bring impartial moral principles to bear on the determination of what, all considered, morally ought to be done and, having made this determination, to freely choose or fail to choose to act as morality, as they conceive it, requires" (*ibid*., p. 151). Under this view, animals cannot be held morally accountable for their own actions, since they do not have this ability. But human agents can and should be held responsible morally for actions that they take towards animals. This also means that we have duties to protect others from moral agents, for example protecting animals from human mistreatment, but we do not have duties to protect animals from moral patients, such as animals preying on other animals.

Finally, Regan takes into account that sometimes the right not to be harmed overlaps with the same right in someone else, especially in inter-species situations. Harm here refers to inflictions and deprivations, which either diminish a subject-of-a-life's welfare by causing suffering, or by preventing them from pursuing their own welfare (*ibid*., p. 187). He proposes two principles to deal with this overlap; the minimum overriding, or miniride principle, and the worse-off principle. The miniride principle is as follows: "Special considerations aside, when we must choose between overriding the rights of many who are innocent or the rights of the few who are innocent, and when each affected individual will be harmed in a prima facie comparable way, then we ought to choose to override the rights of the few in preference to overriding the rights of the many" (*ibid*., p. 305).

Secondly, the worse-off principle: "Special considerations aside, when we must decide to override the rights of the many or the rights of the few who are innocent, and when the harm faced by the few would make them worse-off than any of the many would be if any other option were chosen, then we ought to override the rights of the many" (*ibid*., p.

308). This principle takes into account that not all harms are equal but can be compared, even when the same harm is inflicted on different individuals (*ibid*., p. 303), for example a woman who is in the prime of her life when she dies creates more harm than if her senile mother were to die. Even though both suffer the same type of harm (losing their lives), the younger woman's loss is greater because she has more life (living years) to lose, thus making her harm greater.

To summarise Regan's position, he argues that certain animals, as subjects-of-a-life, have value and require respect. This value is inherent, and applies to animals not as moral agents, since they cannot morally do wrong or right as we can. Rather they are moral patients who can be morally wronged by moral agents like ourselves. He also accounts for when these values overlap through the miniride and worse-off principle, thereby keeping harm in such situations to a minimum.

2.3.1 Shortcomings of Deontology

Regan's account manages to overcome many of the difficulties raised by a utilitarian argument. By introducing a subject-of-a-life criterion, it does not force us to weigh all individuals equally, but rather, for example in the lifeboat case, we can say that a person is a subject-of-a-life whereas a different animal might not be, could we argue that it does not have beliefs or desires, a psychophysical identity over time, or all the criteria required for being a subject-of-a-life. And even if we argue that the other animal is a subject-of-a-life, Regan argues "the magnitude of the harm that death (the animal or the person) is, is a function of the number and variety of opportunities for satisfaction it forecloses for a given individual" (*ibid*., p 351). Therefore the person can justifiably get preferential treatment over say a dog, since it has fewer opportunities for satisfaction and fewer types of them. Secondly, it seems to offer solutions to direct conflict where utilitarianism cannot, through the miniride and worse off principles. Finally, it considers other mental qualities, not just the ability to experience pain and pleasure, as ethically relevant.

However, the deontological argument has its own shortcomings, which will be discussed in this section. Firstly, his view that we only have duties to protect others from moral agents leads to an inadequate view of duties. Secondly, his miniride and worse-off principles, which give us possible solutions to direct human-animal conflict, are difficult to reconcile with his notion of inherent value. Furthermore, the notion of inherent value itself is not adequately explained, and drawing the line between those that have this value and those that do not also leads to some problematic conclusions.

The first critique on this view explores Regan's claim that we have duties to protect others from moral agents only, not moral patients. If it were the case that we have duties to protect others from moral patients, it would lead to a claim that we have to protect animals from other animals, such as in the case of natural predation, which Regan rejects (but where Nussbaum's argument will lead in 2.5). Jamieson proposes a hypothetical example of whether or not we have duties to protect someone from natural events or animals, by asking us to imagine a boulder being put in motion through an animal or natural event, and rolling towards a person where it will cause them serious harm (1990:351). Strictly adhering to Regan's claim, we would have to conclude that we have no duty to warn the said person. However, if a moral agent pushed the boulder, we would have this duty. This distinction seems arbitrary in this particular example, and from this Jamieson draws the conclusion that we cannot claim our duties are only to protect others from moral agents, and he argues that Regan's views on our duties to assist are inadequate or incomplete (*ibid.*, p. 356).

This problem could also be illustrated by looking specifically at cases of direct human-animal conflict where animals attack people. As an example, hyenas often occupy the same living space as humans, as in 2002 when six people were killed by hyenas in less than a month in Malawi, where people often sleep outdoors (BBC 2002). Similarly Addis Ababa hosts between 300 and 1000 hyenas, who are known to attack people sleeping on the streets or to dig up graves to eat corpses (Fletcher 2014). Strictly adhering to the principle that we only have duties to protect others from moral agents, which hyenas are

not, leaves us in an odd position where there might be no duties to protect people in these situations.

This does of course not mean that people cannot defend themselves, which Regan makes provision for with the worst-off and mini-ride principles. These principles can also be used in preventative cases, such as the abovementioned where the rights of the many (people) may override the rights of the few (hyenas). With the miniride principle, where one life may be sacrificed to save many, it is unclear how this reconciles with the equal inherent value of each individual (*ibid*., p. 357). For Regan consequences are not what matter, rather what matters is the "respect for the equality of the involved members" (*ibid*., p. 358). But, the foundation for making a decision in the case of direct conflict does not lie in how best to respect the inherent value of the parties involved, but rather the decision gives preference to the greatest number. Given this view, one is then surprised that Regan defends the miniride principle and advocates that a subject-of-a-life can be killed since the principle turns out to be consequentialist.

Secondly, his worse-off principle commits us to choose in every situation the action that will leave the worst-off member the least worst-off. Jamieson gives the example of John being crippled and Mary is not. If we must either cripple Mary or give John a slight headache, it would advocate that we cripple Mary, because John would be worse off if he were crippled and had a headache than he would be if Mary were crippled (*ibid*., p. 361). The worse-off principle, in this case, is also in conflict with the miniride principle, for example blinding six people or blinding one (*ibid*., p. 361). The miniride principle would advocate blinding only one, but if that one person were also deaf, the worse-off principle would say the six must rather be blinded. These examples are hypothetical, but they serve to show possible inconsistencies in the argument, and differences in outcome when applying the miniride or the worse-off principles.

When he considers inherent value, Regan states that utilitarian views hold that individuals are 'mere receptacles' for value. For him, individuals are inherently valuable, and this value is not dependent on the value of their experiences (such as how much pain

or pleasure they can experience) nor in how much they are worth to others (how much pain and pleasure others can gain from them). But inherent value is not necessarily reserved only for subjects-of-a-life, rather we find that "…the claim has not been made…that satisfying this criterion is a *necessary* condition of having inherent value. It *may* be that there are individuals, or collections of individuals, that, though they are not subjects of a life in the sense explained, nevertheless have inherent value - …a kind of value that is conceptually distinct from, is not reducible to, and is incommensurate with such value as pleasure or preference satisfaction" (Regan 2004:245).

This view of inherent value is problematic, mainly because it does not give us a clear conception of what is required for a being to have it. Regan does supply us with a criterion to be a subject-of-a-life, which confers inherent value, and I briefly repeat it here: "... individuals are subjects-of-a-life if they have beliefs and desires; perception, memory, and a sense of the future, including their own future; an emotional life together with feelings of pleasure and pain; preference- and welfare-interests; the ability to initiate action in pursuit of their desires and goals; a psychophysical identity over time..." (*ibid*., p.243). However, if non-sentient things can also have inherent value, as he alludes to in the previous paragraph, it is not clear what makes inherent value based on being a subject-of-a-life more important than that value possessed by a non-sentient thing.

The next shortcoming is the fact that, for Regan, inherent value does not come in degrees; a being either has it or doesn't have it. This raises the question of where the line should be drawn between which animals have this value and which do not, in other words which animals are subjects-of-a-life and which are not. If one considers his definition of a subject-of-a-life, it seems that the ability to have beliefs and desires, welfare interests, the ability to pursue their own desires and all other factor he mentions, are qualities or capacities that can be had in degrees. Some animals might have only little self-awareness, others a bit more, and some more still and there might not be so much a line separating subjects-of-a-life from beings that aren't, as a gradation of those that have these qualities in various degrees.

When it comes to his solutions to solving direct conflict between humans and animals, his miniride principle turns out to be based on utilitarian instead of deontological foundations, and his worse-off principle leads to inconsistencies in his argument as a whole. This is where the next approach, that looks at the capacities of animals and allows for degrees of the qualities possessed by subjects-of-a-life, offers advantages both over the utilitarian and the deontological approaches. Both of the aforementioned create definite distinctions between who is deserving of ethical consideration, between those that possess a certain quality (ability to feel pain for Singer and being a subject-of-a-life for Regan), whereas approaches that put emphasis either on psychological capacities (2.4 and 2.5) or consciousness (2.6) can assign different levels of ethical consideration depending on to what extent these qualities are present in an individual.

2.4 The Cognitive and Psychological Capacities View

Donald VanDeVeer, who is opposed to both the views of Singer and Regan, in 'Interspecific Justice' (1979), uses these ideas of cognitive and psychological capacities for a form of interest-specific egalitarianism called 'two-factor egalitarianism' (*ibid*., p. 152-157). This approach is viewed as offering solutions for conflict between humans and animals. Two-factor egalitarianism suggests that the two matters that are ethically relevant are the level or the importance of the interest that is in conflict, and the psychological capacities of the individuals whose interests are in conflict.

Regarding the first, the type of interest in the conflict, peripheral interests should never override basic interests in conflict situations (*ibid*., p. 157). Basic interests are interests that generally involve not suffering and by extent not dying, and it does not matter whether or not the individual is consciously aware of this suffering (*ibid*., p. 151). Peripheral interests are any other interests not directly relating to the avoidance of suffering. Take for example the case of an animal having a basic interest in the continuation of its life, compared to the peripheral interest of a human who finds consuming animals appetising but has other sources of food. If we were to kill that animal for food we would be overriding its basic interest with our peripheral one. It

becomes problematic to make a call, however, when the interests involved are the same, i.e. when both parties have either a basic or a peripheral interest in common. In these cases, one of the interests needs to be weighted more, and VanDeVeer suggests this can be done by considering the second ethically relevant factor, psychological capacities (*ibid*., p. 157) using the 'Weighting Principle'.

The Weighting Principle is a way of identifying and assessing these different interests when it comes to cases of direct conflict. It argues the following: "… the interests of beings with more complex psychological capacities deserve greater weight than those with lesser capacities" (*ibid*., p. 158). In this view, if the basic interest of a human conflicts with the basic interest of an animal, human interests override that of the animal. The way in which VanDeVeer defends this principle is twofold: firstly humans have the capacity to suffer in ways that animals cannot (*ibid*., p. 158), such as dreading a future event, or through the capacity of memory, to suffer for longer; so even in cases where both parties have the same basic interest at stake, one would suffer more than the other if this basic interest was overridden. Secondly, the Weighting Principle can be defended with the economic notion of 'opportunity cost' (*ibid*., p. 158), where cost of the resources put towards a certain future include the opportunities no longer available because of this. In cases where like interests are involved, taking the opportunity cost into account can guide the decision, and again this opportunity cost will be higher in the individual who has higher psychological capacities.

2.4.1 Shortcomings of the Cognitive and Psychological Capacities View

Some problems arise in this view as well, firstly in the vagueness in defining and determining what interests and psychological capacities are (*ibid*., p.160). Further possible challenges to this view are that if psychological capacities confer ethical status, and these capacities differ between individuals in a given species, such as humans, it might lead to the view that certain people have more, or a higher, ethical status than others (*ibid*., p. 160).

Another criticism on the capacities view is that if ethical status is awarded based on psychological capacities, it would imply that some animals, such as ravens or dolphins, would have more claim to ethical status than horses or dogs (Posner 2002:532). This would mean that more ethical consideration ought to be conferred on the most intelligent animals, which may lead to the conclusion: "They don't have syntax, so we can eat them" (*ibid*., p. 532). Furthermore, if intelligence (or any other single quality) is regarded as ethically relevant, then a monkey might be awarded more ethical status than a mentally retarded person. It is also not clear, in cases of human-animal conflict, if human rights would be prioritised or why.

If cognitive capacities are what matter for ethical consideration, then the less intelligent an individual is (or appears to be, judged by human standards), the less ethical status they are awarded. While two-factor egalitarianism is not speciesist, or species-specific and manages to overcome difficulties of views that are, not being specific might leave open the possibility that not all humans have equal ethical status, since they do not all share the same capacities. The following account of the capacities approach, by Martha Nussbaum, solves the problem of awarding more rights to a chimpanzee than a mentally retarded person, or more ethical status to certain members of species based on certain capacities, by focussing on species-specific flourishing.

2.5 Capacities and Flourishing View

Nussbaum gives us an argument for animal ethics that takes capacities into account, but does not place ethical value on these capacities themselves. Rather, the ethical weight is placed on enabling entities that have various capacities to flourish according to these capacities. So instead of a capacity (for example the ability to engage socially) being ethically valued, what is important is that an individual possessing this capacity is granted the opportunity to practise that capacity (for example not be kept in isolation). This argument has a Kantian element, as well as a Neo-Aristotelian element, and concludes, based on these two elements, that we are ethically obligated to support the environment that allows each animal to flourish.

Nussbaum's argument thus has two central parts; the first one is that it aims at establishing what she refers to as a Kantian element- namely; that a fundamental starting point to the debate on ethical consideration is that we need to respect each individual sentient being as an end in itself, and not merely as a means to something else (2011:237). This does not follow Kant's own argument that only rational beings can have inherent value; rather inherent value comes from the wonder and awe that living beings pursuing their own good inspire in us, and from a sense of dignity that these animals possess. This gives us an ethical obligation to respect this dignity (*ibid*., p.240).

She combines this, in her second argument, with the Aristotelian notion that each animal has a species-specific way of functioning that needs to be supported for the animal to flourish. An account of animal ethics needs "the ability to recognise and accommodate a wide range of different forms of life with their complicated activities and strivings after flourishing ... each creature has a characteristic set of capabilities, or capacities for functioning, distinctive of that species, and … those more rudimentary capacities need support from the material and social environment if the animal is to flourish in its characteristic way" (*ibid*., p.:237). Here we find a teleological animal ethics, based on the idea that each particular species has a *telos*, or specific way of being in the world successfully, a particular way of *flourishing* as the type of thing that it is. What is considered ethical is whatever would best help an individual achieve this *telos*.

When it comes to how animals should be considered ethically, she proposes a type of benevolent paternalism as best means of achieving this. Whereas humans are fully rational and can make informed decisions for themselves, animals cannot do this, which means there is a need for paternalistic judgements and duties of beneficence that are far more comprehensive than in the case of humans (*ibid*., p. 238). This is especially the case where humans have a direct effect on animals, but as Nussbaum points out, there are few or no situations where animals are completely uninfluenced by human intervention.

As an alternative to valuing capacities in themselves, in her approach more or different types of capacities do not translate as being more ethically relevant. Rather those with more capacities can just be harmed in more ways. Nussbaum's capacities approach finds ethical significance in the capacities themselves as they are relevant to each species and assist the species to flourish according to its particular nature. It follows that preventing an animal from using those capacities constitutes a harm done to that animal (Nussbaum 2004:309). She argues that the "level of complexity of a sentient creature does not ... make one species 'higher' and one species 'lower', or that it is more permissible to inflict damage on one than on another" (Nussbaum 2011: 246). One problem raised with looking at capacities only, as VanDeVeer does, is that we would have to agree that a healthy chimpanzee should receive more ethical consideration than a severely retarded child, since the chimpanzee has superior cognitive and psychological capacities. However, using Nussbaum's account, we can take into consideration that the chimpanzee is flourishing as a member of its species, whereas the child is limited in its capacities and is being prevented from flourishing in its species-specific way.

2.5.1 Shortcomings of the Capacities and Flourishing View

Two main concerns arise from Nussbaum's view. The first is that if we have an ethical obligation to create environments where animals can experience species-specific flourishing, this means that people need to intervene in cases where one species prevents another from flourishing, such as in the case of natural predation. Secondly, Nussbaum does not necessarily want to stop using animals for human purposes, which contradicts one of the main parts of her argument, that animals should be treated as an end and not a mere means to an end.

In considering the first shortcoming mentioned, Nussbaum's argument is that if we have a duty to promote animal capacities, we also have a duty to prevent harm to animals. This also includes preventing animals from harming other animals. "Whether a human being tears a little dog apart or whether that same little dog is torn apart by a tiger, it's just as bad for the dog... we should defend weaker animals. And one thing that we should never

do is to suppose that animals killing other animals is morally neutral" (Nussbaum & Faralli 2007:158).

The practical consequences of such a view are far-reaching. In cases where animals are under human control, such as in zoos, situations can be set up in such a way that predators can express their natural tendency to hunt without having to tear apart any animals (meat will need to be sourced humanely), but in the wild, predators will have to be separated from prey, be fed alternative sources of meat, and prevented from killing and maiming permanently, perhaps by not being allowed to procreate (Wissenburg 2011: 401-402). Her view leads to an immense duty placed on humans to interfere with and alter nature, yet it is perfectly consistent with Nussbaum's conviction that "the natural" must be replaced with "the just" (*ibid*., p. 391).

This argument makes a claim that is difficult to defend, that what animals do can be considered ethical or unethical, or that they can be what Regan calls moral agents. This is precisely why Regan says we cannot have duties to protect others from moral patients (even though this claim has its own shortcomings as discussed earlier), because if we had these duties, it would lead to the conclusion that we need to protect animals from predation. While there is definitely harm caused when one animal hunts, kills and eats another animal, it does not follow that any *morally reprehensible* harm was caused. Nussbaum herself suggests a paternalistic judgement and duties of beneficence for animals, because they cannot rationalise or make informed decisions for themselves, ethical or otherwise.

To defend Nussbaum's statement, we could argue that we have duties to protect our fellow humans from other humans, and from there we can extend those duties to other animals as well. In fact, this is something people already do when they protect their own pets from wild animals that might cause them harm, or when farmers put measures in place to protect their livestock from predation by wild animals (although with different intentions). But again, in the case of protecting fellow human beings (or animals for that matter) from other human's actions, we are protecting them from moral agents. They can

be held morally responsible for their actions, whereas we have no duties to protect others from moral patients if we follow Regan's argument. As mentioned earlier this would imply that we have no duty to warn a person of any danger caused by a non-moral subject, like a boulder rolling towards them, which seems intuitively wrong. So while Nussbaum's argument of protecting animals from predation might seem drastic, it is consistent within itself, and overcomes Regan's problem of only having responsibility of protecting animals from moral agents. For Nussbaum, there is no inherent problem with protecting an individual from moral patients, so protecting animals from predation becomes a moral responsibility.

From a practical perspective, however, protecting animals from predation becomes a lot more complex. While it might be done in areas where wildlife is already constrained and managed, predators can be fed and even eliminated through non-violent means like birth control, a strategy already used for population control in some animals in the wild. But this seems to go against the principle of flourishing for the species in question; for example lions on birth control will eventually lead to impalas leading a species-specific life of flourishing without fear of predation. But for lions, rearing young might be an essential part of living a flourishing lion life. Stepping back and letting nature run its course might be the more reasonable option here, doing as much as is reasonably possible. This remains compatible with the Aristotelian aspect of her argument, that animals be allowed to flourish in their species-specific way as much as reasonably possible. It does however clash to an extent with the Kantian element; some animals' inherent value cannot be protected without serious intervention.

When it comes to the farming of animals for human consumption, while not predation in the sense we have been talking about here, the practical implications of Nussbaum's views are very demanding. Both in our duties to protect animals from others and the extensive measures that need to be put in place to do this, large changes need to be made. Keeping animals in captivity, removing them from their young, ending their lives prematurely (in humane or inhumane ways) undeniably prohibits their flourishing, yet most of these measures are necessary for raising animals as food. Here the practical

implications would require a complete rethinking, or a complete abandonment of the meat industry.

The second shortcoming mentioned is that Nussbaum argues that no animal should be used as a mere means to an end, instrumentally without their consent or taking their own good into account, But at the same time, she wants to keep open the possibility of using animals for human purposes, such as for experimentation and possibly for food. Nussbaum asks that we acknowledge that uses such as those of "animals in research are tragic, violating basic entitlements... (and this acknowledgement) reaffirm(s) dispositions to behave well towards them where no such urgent exigencies intervene" (2004:318). It is unclear which cases would truly be tragic, since research on animals is not unavoidable, whereas truly unavoidable cases, where basic interests are in conflict with each other, can be considered tragic since basic entitlements will unavoidably be violated.

Nussbaum, in justifying the continued use of animals in scientific research, also argues that if animals truly are needed, less complex animals (with fewer psychological capacities) should be used wherever possible, since their suffering is less than more complex animals (*ibid*., p. 318). This type of argumentation seems to rest on a utilitarian argument, founded on the idea that animals that are more complex can suffer more harm, and less suffering is ethically preferable. It seems that Nussbaum's argument, when it comes to direct conflict, takes the same position that VanDeVeer does, that when conflict between humans and animals arises, higher cognitive capacities are 'worth more' than lower capacities. Especially in the light of the criterion of flourishing in a species-specific way, combined with the Kantian notion of intrinsic value, which are central to her approach, it is not clear why the flourishing of some species is more important than others, unless one turns to a utilitarian approach.

2.6 African Environmental Ethics: A Relational Approach

In contrast to the abovementioned approaches, African environmental ethics are focussed not on specific qualities that individual entities possess, but rather on the relationship

between different entities (which can be human, animal, organic or inorganic). As such it differs drastically from the approaches discussed so far. Two views that exemplify this approach is based on the Shona concept of Ukama, as exemplified in the work of Munyaradzi Murove, and the Nso worldview, an eco-bio-communitarian approach demonstrated by Godfrey Tangwa.

The Shona word Ukama, which means relatedness, implies an understanding of reality in terms of interdependence, or in terms of relationships (Murove 2004:196). It is generally applied to family members, but all people can be considered as family under this view (*ibid*., p. 196). This is the notion that Murove argues can form the foundation of an environmental ethics, since "being in Ukama implies that there are no entities that are self-sufficient and enjoy existence independently of other entities" (*ibid*., p.202). In other words, being in Ukama recognises that individuals do not exist independently of each other, there is an interdependence between us. It is often, or perhaps more commonly interpreted as a relationship that is between people, and not only people who are currently living, but rather Ukama can exist between the past, present and future. It is not bound by time, rather it "...advances the idea that there is a unifying principle that links the identity of a person or community not only to past generations, but also to future generations" (*ibid*., p.201). The concept of Ukama can also be widened to include not just other people, but the world around us in general. It can include the interdependence of people and the environment, including the relationality between people and animals, plants and the natural world in general. In this widened sense of Ukama, we can interpret human existence as meaningful only when that life is seen as part of a continuum with everything else in existence (Behrens 2014:73), as well as everything that has existed, and will come to exist as well.

Another account of African environmental ethics is expressed through the Nso worldview, which Tangwa refers to as eco-bio-communitarian. Within it, "the distinction between plants, animals, and inanimate things, between the sacred and the profane, matter and spirit, the communal and the individual, is a slim and flexible one… One might say, in short, that (under this worldview, people) are more disposed toward an

attitude of live and let live" (2004:389). According to Tangwa, the pre-colonial traditional African metaphysical outlook recognises the interconnectedness and interdependence between people and animals, as well as the rest of the environment. This leads to more respectful and cautious account of how animals should be treated. This would then also lead us to consider plants, animals and the environment as entities that we can have ethical consideration for. Furthermore, in the Nso worldview, human beings are not seen as having any special privilege bestowed upon them that gives them the right to own, dominate or exploit the rest of the animate and inanimate world around them (*ibid*., p. 389-390). Because the distinctions between humans and nature are so slim and flexible, humans do not necessarily have any overriding rights over nature.

The idea of relationality expressed through Ukama and eco-bio-communitarianism stands in stark contrast to more Western views. When we look at what is required for ethical consideration the focus tends to be on characteristics of individual entities. Many views on animal ethics focus on the possession of specific ethically relevant qualities such as the ability to feel pain or the ability to use reason. If certain qualities are valuable and if a person or an animal has this quality, we should give it ethical consideration. African ethics generally, is "orientated less towards individual entities" (not limited to humans and animals but also to other living and non-living things) "and more to the relations between them. More attention is paid to the processes and the flow of forces between entities than the entities themselves. Emphasis falls on relating rather than existing since it is the quality and nature of the relationship that determines whether the whole will sink or swim. The relationship between any two entities affects all of the rest of life since (according to this view) all of life is bonded" (Peterson in Behrens 2014:76). This then provides us with a concern for animals based on the fact that humans, animals, plants and other natural objects get their value from the relationships that exist between them, and each individual entity is dependent on the whole for its own existence. Any disrespect or ill treatment of any single part damages these relationships and thereby damages the whole as well.

2.6.1 Shortcomings of a Relational Approach

While an African environmental approach manages to avoid many of the problems that arise from taking only singular qualities as ethically relevant, it also raises its own problems. This is based on the fact that quite often animals are seen as valuable only in their use-value to humans, which would then make an African environmental ethic an indirect view, where animals are not owed any direct duties. We can base this on the fact that the concepts that form the foundation for some versions of environmental ethics, such as the concept of Ukama, are strained to include animals. Rather, we can argue that the ethical consideration granted through Ukama is only applicable to humans in any real sense.

People are "always in need of others and these others, as suggested in Ukama, also imply the natural environment" (Murove 2009: 324). We see here that there is a *need* of others, or a dependence on the environment and the animals that make up part of it, which implies that humans get some use-value from it. Horsthemke argues that this is the only way in which animals are given ethical consideration: "(j)ust insofar… as the 'natural environment' (which may be taken to include animals) meets and satisfies (people's) needs" (2017:135). Based on this he argues that the concept of Ukama does not give any concrete, specific responsibilities and duties towards animals. Rather "insofar as… Ukama (has) any action-guiding content at all, this is unlikely to have any primary, direct beneficiaries other than human beings" (*ibid*., p. 135).

If this is the case, then views on animal ethics become quite indirect. Indirect views do not attribute any particular ethical relevance to animals, except insofar as they have value to humans. This contrasts to all the previously mentioned approaches, where we have direct duties towards animals because of certain qualities that they possess that are considered ethically relevant. But in the case of African environmental ethics, animals are valuable in that they contribute to the whole. Individuals are not necessarily valuable in themselves and we do not have any direct duties towards them. Consider that a bull might be killed to maintain Ukama with ancestors and future generations (*ibid*., p. 135), where

every other approach looked at so far would consider this act unethical. This would further mean that in any conflict, direct or otherwise, animals don't have any intrinsic value. If individual qualities are not considered there is no ultimate unshakable ethical consideration given to any individual animal, which leads us back to the necessity of an approach to animal ethics that takes ethically relevant characteristics into consideration, such as the one found in the work of Donald Griffin.

2.7 Consciousness: The Awareness and Self-awareness View

In *Animal Minds: From Cognition to Consciousness* (2001), Griffin makes the argument that animals do indeed think, and from this he progresses to animals being aware of their own thinking. Considered the father of cognitive ethology, he investigates and compares cognitive phenomena among animals. Steven Wise, an American legal scholar who specialises in animal protection issues, uses Griffin's work to argue that certain levels of consciousness entitle individuals to certain levels of ethical consideration. First, I will consider how Griffin formulates his argument for consciousness in animals, and then how Wise uses this to form a foundation for his argument regarding the ethical treatment of animals.

Griffin (2001) argues that even though we cannot prove consciousness directly, we can speak about likelihood or probability of conscious awareness quite reasonably. Being aware of certain things and situations, and being aware of one's own thoughts and feelings in general, are both part of this type of awareness. How behaviour indicates consciousness will be discussed in detail in chapter 5, but for our present purposes, it is enough to note that he argues that it is quite reasonable to infer consciousness from the way in which animals behave.

Griffin (2001: 11) gives us what he calls the "probability of consciousness awareness score", abbreviated to pA. This attaches a numerical value to consciousness. The pA score can be any number from zero to one, with a score of one meaning that we can be completely sure that the individual in question is consciously aware (exactly what this

awareness will look like will be dependent on where they fall on the scale). Following this, normal healthy adult humans score 1 on this pA scale. A score of zero indicates that we can reasonably assume that the individual in question has no conscious awareness at all. With cases where individuals are given a score of 0.5, this indicates a situation where we do not know or cannot judge (*ibid*., p. 11-12). These scores are reasonably made inferences based on experimental and observational evidence, for example the flexibility and adaptability we observe in some animals' actions. Using a reasoned approach as Griffin does, the best and most effective way to explain these versatile behaviours would be through consciousness (*ibid*., p. 13).

Wise uses this scale of pA to argue for both equality rights as well as liberty rights for animals. He does so by first considering what practical autonomy consists of, and what rights those beings that have practical autonomy are entitled to. I will briefly look at what equality and liberty rights mean for Wise, what qualifies as practical autonomy and finally how these rights relate to animals on different parts of Griffin's pA scale.

What Wise means under equality rights is not that all animals should be treated equally to human beings, but rather that like should be treated alike. Similar beings with similar qualities should be treated similarly (Wise 2002:29). Liberty rights, on the other hand, refer to being "treated a certain way because of how one is made" (*ibid*., p. 29), or that being a certain way entitles one to certain freedoms. What entitles us to liberty rights, for Wise, is practical autonomy, and practical autonomy, he notes, is more than sufficient for basic liberty rights (*ibid*., p. 30-32). An animal, human or otherwise, has practical autonomy (is entitled to basic liberty rights) if it can firstly; desire things or states of events; secondly can intentionally try to fulfil these desires; and thirdly, if it "possesses a sense of self sufficiency to allow her to understand, even dimly, that it is she who wants something and it is she who is trying to get it" (*ibid*., p. 32). If we use equality rights as a basis, which always involves a comparison, then beings with similar autonomy values should have similar liberty rights (*ibid*., p. 236). This argument is similar to Singer's marginal cases, but the basis for equal treatment for Wise is practical autonomy, not the

ability to experience pain and pleasure as it is for Singer, not that these two qualities are necessarily unrelated.

Wise uses Griffin's pA to split animals into four categories, and depending on which category an animal falls into, different rights and freedoms should be awarded to them. The first category consists of animals with a pA of .9 or higher. These animals "possess enough practical autonomy to qualify them for the basic liberty rights of bodily integrity and freedom. They are probably self-conscious and pass the mirror self-recognition (MSR) test" (*ibid*., p. 36). They might also have a theory of mind and an understanding of symbols and language, and can "deceive, pretend, imitate and solve complex problems" (*ibid*., p. 36). These are animals like gorillas, orang-utans, dolphins, bonobos and humans.

Category two animals have an autonomy value between 0.51 and 0.89, and have a simpler consciousness. They in all likelihood possess a primitive sense of self, mental representations, and are able to act insightfully. For these animals, liberty rights depend on where they fall in the scale (*ibid*., p. 37). In general, a score above 0.7 qualifies animals, such as African Greys and elephants, for liberty rights. Category three is for animals that have a pA of 0.5, for animals that we do not know enough about to understand them and therefore cannot make a rational judgement concerning them. Finally, category four animals have a pA value below 0.5, and are evolutionarily remote from us. They show no indication of consciousness, but appear to be only stimulus response machines. These animals are not eligible for liberty rights, but there might still be a possibility that they are eligible for equality rights (*ibid*., p. 37).

To sum up, Griffin places animals on a scale of practical autonomy, assigning values from zero to one, moving up the scale the more evidence there is of conscious awareness or a sense of self. Wise takes up this scale and uses growing levels of practical autonomy to assign different levels of ethical concern, which entitle animals to some equality and liberty rights.

2.7.1 Shortcomings of the Awareness and Self-Awareness Approach

A few problems arise with this view. If one wants to use consciousness as a foundation for animal ethics, it first needs to be shown that animals are conscious. Firstly, one can take the view that conscious thinking is unmeasurable "private" phenomena, and only the individual that experiences them has access to them. This means that we cannot verify any statements about these experiences objectively from the outside (Griffin 2001:21). "In other words, there is no reasonable, or scientific way to investigate claims related to consciousness, because we have no way of confirming whether or not an individual has the internal experience of being conscious" (Turner 2019:365). A common problem in attributing consciousness to animals, humans included, is to make the move from behaviour to mental representation, or, in other words, the problem is how to determine if the behaviour that we are witnessing has a corresponding mental state attributed to it. This will be explored in more detail through Antonio Damasio's work in chapter 3.

Secondly, one can argue that there is no real necessity for an animal to be aware of its actions; so long as the action performed is evolutionarily valuable it serves its purpose and does not require consciousness (Griffin 2001:21). We can consider the example of individuals of the species *C. Elegans*. They will eat on their own if it seems safe, such as when there are no predators in the vicinity. However, if a threat is detected nearby, they will gather together and eat together with other members of the group. Without any additional information as to what type of animal *C. Elegans* is, we might be tempted to say that we are observing deliberate, conscious and flexible behaviour. It might even resemble cooperation between the various individuals, or even seem to be a case of altruism. However, C. *Elegans* is a nematode. A nematode is a type of worm that is structured quite simply, with a very simple brain that does not have the structures necessary to indicate any type of conscious awareness (Damasio 2010:57). But of course acting in these various ways is very beneficial to the survival of the individual, whether or not it is aware of this fact (which in this case it very much is not). What makes this example problematic is that it begs the question: wouldn't it be possible to explain all animal behaviour without taking consciousness into account? "(S)ince conscious

intention is not necessary for actions even if they seem deliberate and are valuable to survival" (Turner 2019:368), we need to determine why we can't use similar mechanistic terms to explain all behaviour.

The view that consciousness is ethically relevant, as Griffin argues, will form the foundation of my own argument. Building on this, I will create my argument as follows: firstly, I will argue that consciousness arises from biological processes (chapter 3), secondly that consciousness is an ethically relevant factor (chapter 4), thirdly that we can reasonably infer consciousness from behaviour, even from non-traditional behavioural indicators (chapter 5), and finally that it can offer consistent solutions to inter-species conflict (chapter 6).

2.7.2 Superiority of the Awareness Approach

An approach that relies on consciousness only arguably does not have the same weak points as the previously mentioned approaches. I argue that firstly, because it allows for gradations, or levels of ethical consideration, it can offer better solutions in direct conflict than approaches that draw a distinction between individuals that possess a certain quality and those that don't. Secondly, it does not focus on certain capacities only, such as intelligence or the ability to feel pain, which might not be ethically relevant. Rather, as I will argue in chapter 4, consciousness itself is ethically relevant, and the capacities and qualities focussed on by the abovementioned approaches, such as sentience, intelligence etc, are not ethically relevant in themselves, but rather in so far as they are indicators of consciousness.

Firstly then, the awareness approach allows for gradations, or levels of ethical consideration. Both the utilitarian and deontological approaches draw clear distinctions between those who receive ethical consideration and those who do not, in Singer's case those that can feel pain and those that cannot, and in Regan's, those who are subjects-of-a-life and those who are not. So in cases of direct conflict, where the two individuals or groups both possess the relevant quality, there is no way of making the decision without

resorting to weighing numbers of individuals involved. With Singer, this can be taken even further to the amount of pain and pleasure involved overall, instead of individuals. Regan does acknowledge that direct conflict between subjects-of-a-life poses a problem, but neither his miniride nor worse-off principle can offer consistent solutions.

Thus, the awareness approach avoids the problems associated with accounts that create definite cut-off points for ethical consideration, which graded approaches, such as those proposed by VanDeVeer, avoid. But his approach (as well as Nussbaum's capacity fulfilment approach to some extent), concentrates on specific capacities as ethically relevant, for example intelligence. This type of approach could very quickly become speciesist if the capacities chosen are those that are valuable to humans, and commonly or exclusively human capacities. There is the problem here of deciding which factors are ethically relevant in the first place, and secondly the conclusions it might lead to. If intelligence is considered ethically relevant, then we can argue that an unintelligent individual deserves less ethical consideration than a more intelligent one. For example, a chimpanzee might be more intelligent than a retarded child, which would force us to conclude that the chimpanzee deserves more ethical consideration than the child, and should they be in conflict, the chimpanzees' interests would be preferred over the child's.

Nussbaum's account, because it recognises that a retarded child is not flourishing according to species-specific capacities rectifies for these types of conclusions in non-conflict situations, but when it comes to conflict, it also struggles to provide a justification that does not take capacities themselves into account, for example when she advocates that when experiments on animals are justified, we use less mentally complex animals. Again, the ethical value is placed on certain 'higher' capacities such as intelligence, and it is not clear why these qualities should confer more ethical status than 'lower' qualities.

Taking these problems into consideration, I will argue that the ability to feel pain, having the qualities that make one a subject-of-a-life, or other capacities like intelligence, are both inadequate as a foundation for ethical consideration, and fail to offer consistent

solutions in cases of direct conflict. Rather, these qualities are indicators of consciousness, and this is where ethical considerations should come from. I will argue in chapter 4 that conscious awareness itself is ethically valuable in itself and in that it allows for other capacities considered ethically valuable.

2.8 Conclusion

In conclusion, we see that most current and dominant views of ethical consideration of animals struggle with providing consistent and justifiable solutions to direct human-animal conflict. Utilitarianism is open to the criticism that it only considers pain as ethically relevant factor, and therefore, as long as both parties in a conflict situation have the ability to feel pain, there is no way to decide between the two. Deontological approaches do much to overcome these shortcomings, since they place the importance on the individuals themselves and not only in this ability.

Deontological theories, however, create a sharp line between those that have ethical consideration and those who do not, and do not allow for gradations, again making it unclear how to solve matters of conflict if both parties are subjects-of-a-life. Regan, who defends a deontological approach, does propose the miniride and worse-off principles, but as shown these invite their own problems.

An approach that takes into consideration different levels of cognitive and psychological capacities overcomes this problem. Such a view however, in its turn raises other issues since certain qualities are considered more ethically relevant than others. For example, if one individual (irrespective of species) has more of a particular quality than others, it seems to imply that they are somehow more deserving of ethical consideration. An approach that acknowledges capacities but on a species level, such as Martha Nussbaum's account, does not run into this problem. However, this approach, based on flourishing as a certain species, falls back on utilitarian problems in cases of direct conflict. Moving away from individual qualities, an African environmental perspective seems to go beyond what other approaches can do, but because of the worry that it may

have a tendency to ignore individual ethically relevant qualities, it may also not solve cases of direct conflict successfully.

Consciousness as ethically relevant factor seems superior to the above-mentioned theories. In cases of conflict, it allows for a way of weighting ethical considerations that does not come down to number of individuals involved (for Singer individuals who can feel pain, for Regan individuals who are subjects-of-a-life). It also does not focus on specific capacities (either in themselves as in VanDeVeer's account, or as capacity fulfilment in Nussbaum's), and avoids attaching ethical value to qualities that might not be relevant to ethical consideration, for example intelligence. I will argue the ability to feel pain, having the qualities that make one a subject-of-a-life, and other capacities are indicators of consciousness, but it is consciousness itself that is ethically relevant, and confers ethical status.

Chapter 3: The Phenomenon of Consciousness

3.1 Introduction

Having shown the problems with many current approaches to animal ethics, and demonstrated that an approach based on consciousness fares the best, this chapter will be used to defend the view that consciousness can be considered a natural phenomenon, and a natural adaptation that is beneficial to the individual that possesses it. If consciousness is going to be used as a foundation for ethical consideration in animals, it needs to be clearly demonstrated that it is in fact present in animals. To do so, consciousness in animals first needs to be shown as possible and likely in species other than humans, and I argue that it can arise as natural adaptation through natural processes, through the neurobiological arguments of Antonio Damasio and Jaak Panksepp. Here I will distinguish between four types of consciousness, affective, access, phenomenal, and self-consciousness.

Next, I will look at and address various problems facing this view, particularly centred around the criticism that if a given behaviour is evolutionarily valuable, there is no logical necessity for conscious awareness to accompany that behaviour. Having then addressed these issues and established that consciousness as natural adaptation holds against criticisms levelled against it, the rest of this thesis will then consider specific aspects of consciousness, access and phenomenal and others, and the behaviour in animals that can arguably serve as indicator of that aspect/type of consciousness. I will also look at how different aspects of consciousness (illustrated by certain behaviours) are dependent on, or imply each other. Having then shown that animals are conscious, I will argue that different types of consciousness should confer differing levels of ethical status, and that this possibility can point the way to solutions in cases of direct human-animal conflict.

For the purposes of this chapter then, after a definition of types of consciousness, I will firstly make the argument that consciousness is a natural phenomenon, made possible by

physical mechanisms. Extending on this, I use, among others, the work of neuroscientist Antonio Damasio and Jaak Panksepp, to argue that consciousness can arise as an adaptation, and has survival value for the individual equipped with it. This combination of the physical underpinnings of consciousness, along with the evolutionary possibility that it could arise as an adaptation, give weight to the argument that non-human animals possess consciousness as well (though which kind, and to what extent, will be dealt with in the 5th chapter). Next, I will address three objections to consciousness as natural adaptation in animals.

Firstly, I consider the argument that even if animals are in fact conscious, there is no reasonable way to know this, which is essential if we are to base ethical consideration on consciousness. However, using cognitive ethology as basis, I argue that it is reasonable to infer consciousness from behaviour. Secondly, I look at the argument that consciousness plays no role, or a very minor role in our decision making, as exemplified in the Libet experiments. Finally, I look at the objection that consciousness offers no useful advantage at all and might not be present in animals at all, and rather that if a particular behaviour is evolutionarily valuable, it doesn't need to have conscious awareness attached to it. These last two objections in particular undermine the idea that consciousness would have arisen in animals as adaptation, since as long as a given behaviour is valuable, there is no need for conscious awareness of that action, as we see many animals function in seemingly intelligent, conscious ways even though they arguably possess no qualities of consciousness. But I will argue that animals that can reasonably be assumed to be conscious live much more complex lives, and cannot rely on unconscious responses to their environment only.

3.2 Types, or Aspects of Consciousness

Consciousness is hard to define and an adequate definition will need to take into consideration both the easy and the hard problems of consciousness. The easy problem relates to the mechanisms which allow for consciousness, and the hard problem that of explaining *experience*, the subjective character of consciousness (Chalmers 2001:3-5).

Since no single definition can encompass all the different aspects of this concept, I will rather be considering definitions of various types of consciousness to determine how these could arise (which I will do in this chapter), and then determine if certain animals share these types of consciousness, and finally how and why certain ones are relevant in an ethical context. To elaborate on these definitions, I will firstly look at Panksepp's affective consciousness, then at what Thomas Nagel (2001) describes as creature and phenomenal consciousness, and at Thomas Natsoulas' (2001) definitions of consciousness, especially Consciousness 3 and 4. Then I will explore the distinction Ned Block (1995) makes between access and phenomenal consciousness.

Affective consciousness, or affective states, are defined as "raw, unreflective consciousness… all mammals, including humans, share sets of primal affective experiences – *anoetic* tools for existence – that unconditionally guide living. This level of experience should not be called 'awareness' – for that would require *noetic* (knowing) and *autonoetic* (self-knowing) forms of consciousness" (Panksepp 2010:10, authors own italics). It is a very basic type of consciousness, and not one that claims that the individual has any awareness themselves of these states, but still these states can guide behaviour, playing a role in spontaneous behaviour as well as learned behaviour, and is demonstrated in classical conditioning in animals that we can reasonably assume are not aware of themselves in any sense.

A more complex type of consciousness is defined by Thomas Nagel. He distinguishes between two types of consciousness, phenomenal and creature consciousness. Creature-consciousness is the characteristic animals possess when they are awake and aware of the properties of their own bodies or environment. This is different from phenomenal consciousness, which is the "property which mental states have when it is *like something* to undergo them" (Nagel in Carruthers 2001:61, author's own italics). To put this into simpler terms, with creature-consciousness, I could be hungry, but phenomenal consciousness ads a subjective dimension where there is a feeling of hunger, an experience of what it is *like* to be hungry, how hunger *feels for me*. Since phenomenal

consciousness in particular becomes important when looking at the ethical relevance of consciousness, I quote Nagel at length here:

"But fundamentally an organism has conscious mental states if and only if there is something it is like to *be* that organism – something it is like *for* the organism. We may call this the subjective character of experience. It is not captured by any of the familiar recently devised reductive analyses of the mental, for all of them are logically compatible with its absence. It is not analysable in terms of any explanatory system of functional states, or intentional states, since these states could be ascribed to robots or automata that behaved like people though they experience nothing. It is not analysable in terms of the causal role of experiences in relation to typical human behaviour – for similar reasons. I do not deny that conscious mental states and events cause behaviour, nor that they may be given functional characteristics. I deny only that this kind of thing exhausts their analysis" (Nagel 1997:519).

Moving on to Natsoulas' definitions, consciousness 3. It is a state in which an animal is conscious/aware of itself and its surroundings, and it can consider the past, present, and future, along with being able to have memories of the past and the ability to anticipate future events. Consciousness 3 does not have to accompany every single action every single time, rather just as how we may be unconscious of many things, such as the state of our own bodies or environments at certain times, animals can be unconscious of the same things much of the time (Natsoulas 1978:910). The definition of this kind of consciousness includes Nagel's concept of creature-consciousness, as well as the ability to be able to consider things that happened in the past or could happen in the future. In chapter 5 in particular, the concept of intentionality will also become important, which is not quite identical to this type of consciousness, although it often goes hand in hand with it. Intentionality is concerned with the directedness, or aboutness, of mental states; the things that mental states are *referring* to (Dennett 1983:344). Consider thinking *of* or *about* something, which happens when we use Natsoulas' consciousness 3. That type of awareness is always consciousness *of* something, which is why intentionality is generally considered one and the same with the ability to mentally represent.

Natsoulas' consciousness 4, also referred to as reflective consciousness, will be considered next. It is defined as "being aware of, or … being in a position to be aware of, one's own perception, thought or other occurrent mental episode" (*ibid.*, p. 911). Put differently, it is "the recognition by the thinking subject of his own acts or affections" (*ibid*., p. 15), in other words having awareness of your own perceptions. It includes the ability to introspect, and it also allows for the ability to be aware that others have their own thoughts that differ from ours. We can also refer to this type of consciousness as self-consciousness.

Next, we look at what Ned Block calls access and phenomenal consciousness. A "perceptual state is access-conscious, roughly speaking, if its content – what is being represented by the perceptual state – is processed via that information processing function, that is, if the content gets to the Executive System, whereby it can be used to control reasoning and behaviour" (Block, 1995:229). What this means is that a state is access conscious if there is an intake of content, and that content can be used to execute certain behaviours based on this content. It is usually accompanied by phenomenal consciousness, but it is not always necessary. Block considers cases of blindsight, where people are not consciously aware of seeing things, yet can make accurate decisions based on visual cues nonetheless, or in cases of prosopagnosia, where people cannot consciously recognise faces at all, yet still perform better than average when guessing whose faces belong to whom (*ibid*., p. 227-228). These are demonstrations of access consciousness, and using informational contents to guide action, even when there is no phenomenal conscious awareness of these contents.

Access consciousness has 3 qualities, where representational content is firstly ready for use in reasoning, secondly ready for rational control of action, and finally (though Block does not insist on the 3rd quality, to allow for other primates to have access consciousness as well) ready for rational control of speech (*ibid.*, p.229). Here we see links to Nagel's creature consciousness, although access consciousness is more complex. While both require awareness of the environment, access consciousness requires something to be

done with this awareness. It also has similarities to Natsoulas' consciousness 3, with regards to the ability to think about things that have happened in the past or can happen in the future, and the intentionality that accompanies consciousness directed towards the world, consciousness *of* things.

Phenomenal consciousness for Block, is described in terms similar to Nagel's – it deals with the what-it-is-likeness, it is experiential, and is distinct from intentional (aboutness) functional (like in a computer program), and cognitive (thinking about) states (Block 1995:230). It is not, however, the same as Natsoulas' consciousness 4, or self-consciousness. While access consciousness and phenomenal consciousness might be necessary for self-consciousness, or accompany it, it is not one and the same with it. Rather self-consciousness, for Block, is the "possession of the concept of the self and the ability to use this concept in thinking about oneself" (Block *ibid*., p. 235); this is reflective consciousness, Natsoulas' consciousness 4.

For the purpose of this and further chapters then, I will take affective consciousness to mean the ability to be affected, and have this guide behaviour, though there is no awareness or reason accompanying the affect. Access consciousness then, is the ability to take information about the environment and one's body and use this information on which to base action, and as something that can be found in degrees, from Nagel's basic creature consciousness up to Block's description with 3 qualities necessary for it. This type of consciousness also involves intentionality, or directedness towards the world. We do however need to further distinguish access consciousness from affective consciousness, since access consciousness that is not phenomenally conscious at the same time, such as in cases of blindsight, seem to be no different from affective consciousness. However, affective consciousness has no phenomenal states attached to it, whereas access consciousness almost always has, and is also accompanied by at least a basic form of mental representation, whether the individual is aware of this representation or not. The phenomenal awareness of this mental representation might be lacking in examples like blindsight, but this is an example of access consciousness not functioning as it usually does. Access consciousness is dependent on phenomenal consciousness, even

though it need not accompany access consciousness in every case. Affective consciousness, however, is prior to and independent of phenomenal consciousness, and I will argue this in depth in chapter 4.

I will further refer to phenomenal consciousness as Nagel and Block describe it, as the phenomenal quality or what-it-is-likeness that can accompany access consciousness, but kept distinct from intentional, functional or cognitive states, though it might be that it accompanies or is necessary for these states, as will be discussed in the next chapter. Finally, self-consciousness will include having a concept of self and being able to reflexively think about this self, as well as having a conception of other minds as well. The connections between these different types, and their dependencies on one another will be discussed in detail in the following chapter.

3.3 The Case for Consciousness as Natural Adaptation

If consciousness is going to be used to confer ethical status on animals, it needs to be demonstrated that it is possible for consciousness to arise through natural processes in those animals. This section then will consider possible ways in which consciousness could arise as physical phenomenon, with specific focus on the possibility of consciousness arising as an evolutionary adaptation, and the argument that consciousness is beneficial to the process of life regulation, and allows for the flexibility and adaptability necessary to flourish in a complex environment.

There are many hypotheses that consider why consciousness would have come about as a natural phenomenon. “It has been argued that people experience consciousness because they are aware of their own causal actions” (Wolpert 2006: 83). Or “perhaps consciousness arises when the brain’s simulation of the world becomes so complete that it must include a model of itself” (2006:59), as Richard Dawkins argues. The common feature of all these views is that they consider consciousness a by-product, or side effect of some other natural process, rather than something evolutionarily useful in its own right. These views threaten the possibility of consciousness, though not as natural

phenomenon, but rather the view of consciousness as a necessary or likely natural adaptation that could have developed in non-human animals as well. These views, and their corresponding implications for the necessity or likelihood of animal consciousness, are problematic for an account of animal ethics that uses consciousness as its foundation, and will be addressed in the following section.

But against the abovementioned views, competing views argue consciousness is not simply a by-product of our own awareness of our causal actions. While some qualities no doubt are side-effects or by-products of other evolutionary adaptations and not useful in themselves, the views I will be supporting argue that consciousness is beneficial for survival and came about as an evolutionary adaptation. Evolutionary science provides ample evidence for this view, and I will use it to argue that there are immense benefits to being consciously aware of oneself and the environment. Not only is consciousness a useful adaptation in itself, "but a wonderfully complex store of adaptability" (Banton 1961: xvi).

Antonio Damasio, in *Self Comes to Mind: Constructing the Conscious Brain*, argues that consciousness offers many benefits for any individual that is equipped with it. Because consciousness "contributed significantly to the survival of the species so equipped", it managed to prevail and become prevalent in many different species (2010:267). It is important to note that Damasio has a very specific definition of consciousness in mind here. For him, conscious states always have content, or are about something, they feel like something to us, in other words they are phenomenal, and they involve a self-feature (2010:158). This is quite a complex definition of consciousness, and requires an individual to firstly be awake and aware of itself, secondly to have an operational mind, and finally "within that mind, have an automatic unprompted undeduced sense of self as protagonist of the experience" (2010:161).

Damasio's notion of consciousness then, includes elements of nearly all aspects of consciousness previously mentioned. Access consciousness, in its simple form as creature consciousness, as well as in the more complex form of being able to represent

information and act on this information, is required in an animal being awake and aware of itself and its environment, and a mind that can access and base behaviour on this information. For Damasio, consciousness is also intentional, or about something, and in this way directed outwards towards the world, yet at the same time can also point inwards, in a sense of awareness of one's own body and mental states, as we find in Natsoulas' Consciousness 4. Finally, it is phenomenal, it feels like something to undergo that state, combined to the experience of a self that is having those experiences. How all these relate to each other will be explored in the next chapter.

The evolutionary value of Damasio's notion of consciousness is manifold. Firstly, it orientates us towards the world around us, and provides us with concern for ourselves and a motivation to act in our own interest. It also allows us to optimise our responses to the environment, and gives us flexibility in these responses, as well as the ability to expect future results, or to delay or inhibit our natural responses (*ibid*., p. 268). To expand on this argument, if consciousness is an adaptation, it would be immensely useful in a complex environment. The more complex the environment becomes, the more complex and flexible our behaviours need to be, and such an environment would favour conscious awareness (Shapiro 2001: 93).

For Damasio then, consciousness allows us to be orientated to the environment and to ourselves, and provides a sense of intentionality, or directedness towards the environment (and also involves a representation of that environment or ourselves). For him, consciousness is useful because every individual is trying to maintain its optimal physical state. As soon as we are aware of the states around us, we can respond to those states. This also applies to internal states, hunger being a simple example. The moment we are aware of that feeling, when we *become aware that* we are hungry and should do something about it, this supplies the motivation for acting on behalf of the self. Here phenomenal consciousness also comes into play, as soon as one experiences a feeling of what it is like to experience hunger, it is easier to respond to that feeling. The reason phenomenal conscious states are *like* something to have, is because it supplies motivation

for action. Finally, once there is a sense of self, this provides motivation or interest in preserving that self over time.

Another benefit of being aware of oneself is that it improves our capacity to learn. When consciousness provides an individual with the capacity for memory, that memory can inform future decisions (Carter 1998: 315). So being consciously aware of ourselves experiencing certain states of our bodies or environments "has improved adaptability and allowed the beneficiaries to create novel solutions to the problems of life and survival, in virtually any conceivable environment, anywhere on earth, up in the air and in outer space, under the water, in deserts and on mountains. We have evolved to *adapt* to a large number of niches and are able to *learn* to adapt to an even greater number" (Damasio 2010:58).

However, one can arguably act just as well through automatic, stimulus-response type actions, without having to have any conscious awareness of them (phenomenal or otherwise), yet in complex environments a limited set of responses will be inferior to various possible responses made possible by awareness of various internal and external states. This is precisely the "fundamental advantage of consciousness.... derive[d] from improving life regulation in ever more complex environments" (*ibid*., p. 57). "Brains evolved as devices that could improve the business of *sensing, deciding* and *moving* and run it in more and more effective and differentiated manner" (*ibid*., p. 50). Precisely because we are aware of ourselves, we are able to more effectively sense, decide and move. Combined with the natural flexibility in our responses, we can do this is new ever-improving ways.

Consciousness then comes about through natural processes, and could arise in animals as well, given that many animals share similar neurological structures to humans, and also need to survive in complex environments. Damasio thus provides a strong case for the evolutionary development of consciousness, given that it is such a beneficial quality to have and proffers many benefits to the individual equipped with it. However, in Damasio's argument, we see a strong focus on particularly the more complex or arguably more advanced forms of consciousness. I briefly restate his definition of consciousness

here: conscious states always have content, or are about something, they feel like something to us, in other words they are phenomenal, and they involve a self-feature (*ibid*., p. 158). This requires an individual to firstly be awake and aware of itself, and secondly to have an operational mind. This requires that the brain can create images, manipulate them, and think about them (*ibid*., p. 154), similarly to Natsoulas' consciousness 3, as well as Block's access consciousness.

These criteria seem to be steep requirements for consciousness, but just as Block's access consciousness does not require a fully-fledged self to have these representations, we can make a similar argument here that Damasio's does not require it either. Access consciousness requires mental representation and the ability to act on these representations, but this can happen either consciously, or unconsciously, with the individual being aware of these representations on the one hand, and not being aware on the other. This would mean that something could have a mind, but depending on the individual, they could either be conscious or unconscious of that representational content, so this criterion might be met without needing self-consciousness. However, Damasio's final criterion is that "within that mind, (we) have an automatic unprompted undeduced sense of self as protagonist of the experience" (2010:161). This does seem to require some form of self then, even if it is not a fully reflexive self-consciousness, it definitely involves a phenomenal awareness of oneself as a *self*, as an individual with recognisable needs and desires.

This definition does seem to exclude many animals from possessing consciousness, at least the type of consciousness Damasio proposes, since we know the majority of animals is not fully self-conscious. However, if we argue that consciousness is something that develops from simple to more complex, and that simpler forms of consciousness are also valuable, then it does not exclude other animals, it just gives them different types of consciousness. Furthermore, when it comes to ethical consideration, more complex forms of consciousness, while perhaps evolutionarily more valuable, in no way imply that they are ethically more relevant. So even if we agree with Damasio's account, it doesn't automatically follow that those who possess his type of consciousness (mostly humans)

would – or should – receive more ethical consideration than those who do not (most other animals). Different aspects of consciousness confer different levels of ethical status, as will be demonstrated in detail in the following chapter. Also, Damasio is not the only voice in this debate, nor is his position on animal consciousness as straightforward as it seems here. To elaborate on this we may consider alternative views on the evolutionary origin of consciousness, particularly Jaak Panksepp's view and his critique on Damasio, as well as Damasio's response on this particular topic.

Jaak Panksepp, Estonian neuroscientist and psychobiologist, argues that there are three levels of cognitive functioning: Primary-process, basic primordial affective states, which include sensory, homeostatic and emotional affects; secondary-process affective memories, which include classical as well as instrumental and operant conditioning, and behavioural and emotional habits; and finally tertiary affects and neocortical awareness functions, consisting of cognitive executive functions, emotional ruminations and regulations, and free will (Panksepp 2010: 7).

Panksepp focusses on the most primary type of consciousness when it comes to the evolutionary value attached to it, namely basic affective states. Since these developed first they have a large degree of primacy over spontaneous behaviour, the mechanisms of learning, and our decision-making processes (*ibid*., p. 8). Briefly repeated, they are defined as "raw, unreflective consciousness… all mammals, including humans, share sets of primal affective experiences… This level of experience should not be called 'awareness" (*ibid*., p. 10). This means that this primary consciousness is where the evolutionary value of consciousness comes from, not from the higher secondary and tertiary functions, though these are of course also valuable in more complex ways.

For Panksepp then, the minimum requirement for "the existence of a consciously experienced affect in animals is the ability to demonstrate classical conditioning of emotional arousal" (2004:34), this being a necessary condition for affective states, though not sufficient on its own. Secondly "animals will instrumentally learn to avoid stimulate in such conditioned states" (*ibid*., p.34), so on this definition even very simple creatures,

who exhibit seemingly intentional or voluntary behaviour, would be considered conscious in the sense that they can experience affects. Panksepp demonstrates this with a very simple creature, a saltwater slug (*ibid*., p. 36), where the slug in question would learn to sway to a certain side after repeatedly having a bright light shone on its other side (*ibid*., p. 37), indicating that it undergoes affective states, and can modify behaviour based on these states.

For Panksepp there is a natural flexibility in our neural circuits even at a basic level, like the aforementioned snail, changing its behaviour given new stimuli. Similarly, cockroaches can learn to walk with less legs if some of them are removed (*ibid*., p. 37), implying that the flexibility in behavioural responses is already present at a very basic neural level. For Damasio, however, more advanced consciousness is what gives us this flexibility in our responses to the environment and to our own bodies, mostly because we can reason about various states and make decisions. Panksepp's argument counters this and claims that reason does not play as important a role in modifying behaviour as do basic affective states[5]. But again, if we see consciousness as a natural phenomenon, developing from simple to more complex, the role of consciousness in guiding behaviour can be present even in the most basic neural structures, but as these become more complex, along with a more complex environment, this natural flexibility becomes the type of flexibility Damasio speaks of, which finds its motivation in reason as well as in affect.

We see many similarities in Damasio and Panksepp's work, and most notably and important for my larger argument, both agree consciousness is something developed from natural processes, and is evolutionarily valuable, in that it aids survival, by providing the individual with a motivation for taking actions beneficial to its wellbeing, and flexibility in which behaviours an individual will take. However, they differ on exactly how this benefit is achieved, and through which aspects of consciousness. For example, Panksepp

[5] For an account that defends Panksepp's view over Damasio's, see Jane Anderson's 2019 article, 'Damasio's body-map-based view, Panksepp's affect-centric view, and the evolutionary advantages of consciousness'. *South African Journal of Philosophy (SAJP)*. 38(4): 419-432.

would disagree on Damasio's strong focus on reason. For Damasio, consciousness gives us the ability to reason about ourselves and our environment, and this is where the true advantage of consciousness lies; the flexibility awarded to us through reasoning things out. Panksepp, however, argues that feelings play a larger role in modifying behaviour than reason. In other words, for Damasio the value of consciousness comes from being able to work things out, and for Panksepp from creating a motivation and concern for oneself; Panksepp argues feelings provide more motivation for action than information gathered through our senses. Damasio does not deny the role of feelings as evolutionarily valuable, but particularly for my argument, if consciousness is tied only to reasoning ability this does exclude most animals from ethical consideration based on consciousness. However, as we will see through Damasio's response below, this is not truly what he argues for.

The main critique Panksepp levels against Damasio, relevant to animals' consciousness, is that Damasio's account does not attribute consciousness to most animals. Again, if we look at Damasio's definition of consciousness, it involves creating a mental map of the object you engage with, which requires pretty advanced neurological substrates, and implies that consciousness is only present in more neurologically complex animals. But Damasio responds that he does not deny conscious feeling in animals, but rather, by focussing on objective (cognitive) elements rather than feeling (affects), a large variety of animals can be studied objectively, and in turn this can tell us more about their feelings (2003:216). This strategy seems then at worst like it is trying to avoid the problem of inferring phenomenal consciousness from behaviour, and at best like a reasonable way of going about studying consciousness in animals, given that they cannot report on their feelings. This distinction between objectively observed characteristics implying consciousness (the ability to reason things out) and feeling that Damasio creates, may then be more of a research strategy than a factual claim about animal consciousness.

Considering both Damasio and Panksepp's views, I argue that raw feels, or basic affective states, are probably essential for consciousness, but not enough for an individual to be considered truly conscious in any ethically meaningful sense. Something more is

needed, that provides for more conscious awareness than just basic affective states, but at the same time it need not be complete self-consciousness and the ability to mentally represent as Damasio's definition suggests. For conscious awareness, being awake and aware of one's own body and environment, and being able to use this awareness to modify behaviour, seems to require at least a basic concept of oneself as a thing separate from other things and the environment. This definitely requires phenomenal consciousness, a feeling of what it is like to be that thing. Thus, while raw feels, or basic affective states are evolutionarily valuable and can influence behaviour, it is not the same as consciousness even in the most basic sense of the word, as awareness of oneself and the environment. We might see similar behaviour in animals that have affective states (like a snail avoiding light) and those generally considered actively awake and aware of themselves (say a primate avoiding light), but that similar control over behaviour does not mean the snail is aware of itself in the same way a primate is. This point will be argued in detail in 3.7 below.

Damasio's definition, which provides us with a self to be concerned about, seems to supply us with more ethically relevant consciousness than Panksepp's affective consciousness does. Having feelings, as Panksepp argues, is definitely evolutionarily beneficial and can act as motivation for action, but awareness of these feelings is even more beneficial for survival, and arguably more ethically relevant (as will be argued in detail in the next chapter). This seems to be the main distinction between Panksepp and Damasio's view: Panksepp argues that having feelings provides motivation for action, Damasio that awareness of these feelings is what provides this motivation. However, I argue that these ideas are not contradictory if we argue that consciousness, just like the rest of the natural world, developed through an evolutionary process which tends towards complexity, with more complex developments offering more flexibility than the less complex. Feelings on their own are beneficial, but being aware of them provides even more motivation for action, up to where being fully self-conscious (in an environment where this would be beneficial) would supply the best type of motivation for preservation of the life of that individual.

Damasio's definition then is perhaps too complex, and too demanding, as simpler forms of consciousness, even basic affective states, already provide an evolutionary benefit to the individual equipped with it. Panksepp's definition (at least his first level of consciousness) is again too simple, as basic affective states seem to be lacking in the awareness that defines a conscious state. However, both seem to be talking about the same thing but attributing the evolutionary value of consciousness at different stages of complexity. As Panksepp states, even at the lowest levels affective consciousness is beneficial. But, as it develops into Damasio's representational self-consciousness, it becomes even more advantageous. My point is that consciousness does not have to have the same benefits at each point in its development, more complex forms can offer different benefits in different ways, all while building on the most basic benefits of affective states. What is useful about consciousness for a particular species might not be the same for a different species.

3.4 Objections to Consciousness as Natural Phenomenon

Various objections (like those of Huxley 1874, Pavlov 1927, Skinner 1938, Carruthers 1989) can arise against the view that consciousness is an adaptive product of natural evolutionary processes, and therefore likely present in non-human animals as well. Some of these objections are applicable to consciousness in animals, some to both animals and humans. The first objection I will consider, is that it is impossible to know whether or not animals have consciousness, particularly phenomenal consciousness, by behavioural observations. And since most animals cannot communicate evidence of consciousness to us, we have no way of establishing this. A second objection, that applies to humans as well, is that consciousness plays no role in modifying our actions, rather it is a side-effect of other processes. If this is the case, there is no need for it to have evolved in other animals, since it offers no benefit to them (or us for that matter), which weakens the case for it arising as a natural adaptation elsewhere. Finally, this leads to the argument that animals need not have consciousness at all, that as long as any action is beneficial to survival there is no need for consciousness to guide the action, or even to be present. Consciousness need not have arisen, since actions can be just as beneficial without it.

3.5 Inferring Consciousness from Behaviour

If one follows the argument that there is a logical possibility and advantage to animals being conscious, like Damasio and Panksepp do, one also needs to show that we can have knowledge of this consciousness in other animals, even though most of them do not have the capacity to clearly indicate this consciousness through speech (although certain animals, such as language-mimicking birds and primates trained in sign language may well be able to). Using cognitive ethology as a basis, I argue however that we can reasonably infer consciousness from behaviour. The kind of consciousness at issue might be access, phenomenal or self-consciousness, based on reasonable assumptions from the kind of behaviour that is demonstrated, and this claim will be explored in detail in the chapter on consciousness in animals. But for the purposes of this section, we can take consciousness here to mean phenomenal consciousness, as an awareness of what-it-is-likeness for the individual in question, except where specified otherwise.

One serious problem with attributing consciousness to animals, and particularly phenomenal consciousness, is that conscious thinking is an unmeasurable "private" phenomenon, since the only one who has direct access to it is the one who is having the experience. In other words, "there is no reasonable, or scientific way to investigate claims related to phenomenal consciousness, because we have no way of confirming whether or not an individual has the internal experience of being conscious" (Turner 2019:365). Or as behaviourist Wittenberger puts it; "(w)e cannot assume that animals make conscious decisions because we cannot monitor what goes on inside their heads" (1981:23).

To this we can raise two possible solutions, firstly an argument from common sense, and secondly one from behavioural ecology. Though both arguments rest on probability, these are the only types of solutions to be found to this type of problem. There is no way for us to know what it is like to be another individual (animal or human), since phenomenal conscious experience is, by definition, a private phenomenon that only the one who is experiencing them has any access to. But that does not mean we cannot

reasonably speak about such phenomena. Another way of addressing this problem would be to argue that some aspects of consciousness, such as access consciousness (which is arguably easier to confirm through studying behaviour), are dependent on phenomenal aspects, and we can infer the presence of the latter by evidence of the former. But this will be dealt with in depth in the following chapter.

To return to the two arguments for the likelihood of conscious experience in animals then, Regan brings up two very important points regarding non-human animals – considering that human beings are conscious, it seems unlikely that other species would not also have this ability, considering particularly how many of them have the same or similar complex anatomy and physiology (2004:18). Secondly, considering the very important role our conscious mental experiences have in guiding our behaviour and our lives in general (see the next section for a discussion on this particular point), it seems quite likely that this would be the same in other species- their behaviour is similarly influenced by their conscious mental experience of the world and themselves in it (*ibid*., p. 20). If access conscious gives us the ability to use information about ourselves and the environment to modify our behaviour, and we share similar brain structures that allow for this type of consciousness with other animals, it seems likely that this ability is shared by other animals as well. And if we have to make the choice between explaining animal behaviour either through the view that animals are merely machines responding to stimuli, or the view of consciousness as an adaptation which implies that animals have a metal life that has an influence on their behaviour, we will likely go with the latter since it provides us with the simplest explanation of complex behaviour (in that it needs to make the fewest assumptions) and it manages to explain a broader range of behaviours than the alternative.

To conclude, taking into consideration our knowledge about other animal's neuroanatomy, and the role consciousness plays in our own lives, it seems highly unlikely that many of the behaviours exhibited by animals happen without conscious thought influencing these behaviours. It is not unscientific to use consciousness to explain behaviour in animals, rather it is unsound scientific practice to ignore or deny the

role consciousness plays in behaviour and the likelihood that it can arise as an adaptation (Turner 2019:369). We can never empirically confirm or deny that an individual has private mental phenomena - this statement remains true. But that does not mean that we cannot infer them quite reasonably from observational and experimental evidence. With tools such as Donald Griffin's pA (probability of consciousness) scores, we can reasonably attribute consciousness to individuals and even infer consciousness to greater and lesser extents. But again, this argument rests on the idea that consciousness is useful, and plays a role in determining behaviour, which need not be the case, as we shall see below.

3.6 Consciousness as Epiphenomenon

Against the idea of consciousness as natural adaptation, we also encounter the view that consciousness is rather a by-product of other natural processes, and does not play any functional role in our lives. This has been a position held by thinkers like Thomas Huxley in "On the Hypothesis That Animals Are Automata, and Its History" (1874), where he claims that animals might be conscious automata, but automata none the less. This becomes particularly relevant with regards to animal consciousness with behaviourists like Pavlov (1927) and B.F. Skinner (1938), who see animals purely as stimulus response mechanisms as well, and that point will be addressed more specifically in chapter 5. But to address the problem of epiphenomenalism in general, this section will explore consciousness as epiphenomenon, and as something that does not guide action as thinkers like Damasio argue. Epiphenomenalists argue that the causal link between thought and action is inserted into our consciousness retrospectively, and that we have no conscious control over our actions, as will be demonstrated by the Libet experiments. But I will argue that this kind of argument is insufficient to support epiphenomenalism, because of the type of motivation behind the given decisions and because of the type of decisions involved.

Epiphenomenalism is the view that states that consciousness does exist, but it plays a very small role, or perhaps no role in our lives (Flanagan 1997:359). If we take the

example of placing our hand on a hot stove plate, those who support consciousness as adaptation would argue that having the phenomenal feeling of burning encourages us to remove our hand, in other words conscious awareness can cause behaviour. Epiphenomenalists, on the other hand, argue that the stimulus (a hot stove plate in this example) causes both our action of removing the hand, as well as the phenomenal experience of it. Basically, epiphenomenalists argue that we are confusing the cause and the effect (in terms of being conscious of the stimulus); consciousness not being the cause of the behaviour, but rather both the behaviour and consciousness of it are effects of the stimulus.

One of the most important points that need to be true for an account of consciousness as natural adaptation, is that conscious thought guides action. This is also particularly important when one looks at animal consciousness, which is mostly only inferred from behavioural observations. If we cannot justify that consciousness influences behaviour, we cannot justify attributing consciousness based on behavioural observations. If epiphenomenalism is true, then it is the case that the mind creates a causal link between our conscious intention and the action we perform to explain the correlation between them, whether or not this link really exists.

It is argued that the correlation between consciousness and action happens because of a singular cause, the brain preparing to act. Thus the preparatory action causes both the thought and the action, rather than the thought causing the action. Going beyond this we can also consider that conscious intention might not be a real mental state in any way, it might be something that comes into our awareness only after the fact, to give us a hypothetical cause of our actions (Haggard 2008:941). What this implies for us is that our actions happen before we have any conscious knowledge of them or influence over them. We might have an experience or feeling of intention, along with a feeling of control over our choices, but this does not mean we have any true influence on our behaviour.

This leads us to the conclusion that the conscious experience of influencing our behaviour is a product of our brain's activity, rather than a cause of it (Carter 1998:314),

or perhaps that access consciousness can happen without any phenomenal awareness attached to it. If this is the case, we might feel that we have conscious control over our actions after we have taken them, but that feeling does not correspond to reality. Instead, we only become aware of our actions after we have performed them, and then attribute them to ourselves retrospectively. The Readiness Potential, an experimental phenomenon which seems to indicate that our decisions are made for us long before we have any awareness of them, seems to support this view.

The Readiness Potential is a wave of activity that precedes voluntary actions, as originally proposed by H.H. Kornhuber in 1964 (Deecke *et al* 1969:158), and later confirmed by University of California neuropsychologist Benjamin Libet. He came to the conclusion that: "[t]he brain acts before the mind decides. Electrical signals in the brain precede the conscious decision to move by at least half a second, and often by much longer" (Koch 2012:27). Researchers were able to predict which hand test subjects would choose to perform a given task, quite a while before the test subjects themselves consciously knew of their decision. In fact, researchers could predict which hand the test subjects would use up to 10 seconds before the test subjects themselves had consciously decided (Soon *et al* 2008:544). Experiments were done in such a way to prevent any type of unspecific preparatory activation being measured instead (*ibid*, p. 543), which would have nullified it as an argument against causal and therefore evolutionarily useful consciousness.

These studies have led to the suggestion that our phenomenal experience of having conscious control over our actions is nothing more than an illusion. Our decisions have been made unconsciously long before we have any conscious intention to make those decisions (*ibid*., p. 543). In other words, our consciousness does not cause our behaviour, rather unconscious processes cause both our behaviour and conscious awareness of that behaviour. While we might experience ourselves as autonomous conscious actors, this is in reality not the case.

However, there are arguments posed against the lack of conscious control over our decisions, as implied by the Readiness Potential. Firstly, we can consider whether an action can be considered voluntary it is performed without any reason or motive guiding action, or whether this might be a faulty assumption to make (Hertzberg 2005:10). In the Libet experiments, the test subjects have no true motivation or even reason to use one hand instead of the other. Consider that there "is no motivating force in operation, driving the agent to do one thing rather than another" (*ibid*., p. 10). Many of the essential things we do are decided unconsciously, like the majority of our bodily functions, for example we do not have to consciously cause our heart to beat or stomach to digest. The fact that one of our decisions, as in the case here of moving the right or left hand in experimental conditions, is made unconsciously, does not necessarily lead to the conclusion that all our decisions are made in a similar way.

Consciousness as an adaptation however, is precisely useful in more complex situations with various consequences, where a variety of factors need to be taken into consideration to make decisions that will guide action. This is particularly the case when we take into consideration Damasio's type of consciousness and the value it brings to the individual equipped with it: concern for oneself, along with the ability to reason and consider what would be beneficial to oneself (this is not to say that Panksepp's basic affective consciousness is not beneficial to the individual, but it is useful in more simple situations, and since it requires no awareness it is not applicable here). But the Libet experiments, by the nature of choices involved, are not studying the types of decisions that Damasio's consciousness is needed for.

In conclusion, because of the type of questions involved, the Libet experiments do not give an accurate account of the role consciousness would play in behaviour, and do not conclusively demonstrate that epiphenomenalism is true. The fact that consciousness is not necessary for certain actions, does not mean it has no influence when it *is* involved. There might be many cases where consciousness is present in situations as an epiphenomenon, but this does not mean that the situation will act out in the same way if consciousness is involved. There are some that make the even stronger claim, that not

only is consciousness not necessary, it does not have to be present at all in animals, even as epiphenomenon. If this is the case, it proposes serious problems for an account of animal ethics based on consciousness.

3.7 Consciousness as Lacking

Extending on the argument that consciousness might have no role to play in motivating action or causing behaviour, one can further argue that consciousness does not have to be present at all, either as epiphenomenon or as useful adaptation. This argument states that there is no need for the animal to be conscious (the term 'conscious' used here in the simple sense of 'aware') of an action while doing it, either before or after the action is taken, as long as that action is valuable and beneficial for its continued existence. One can demonstrate the logical possibility that anything done consciously (with awareness), can also be done unconsciously (without awareness), as demonstrated through the seemingly complex behaviours in animals that do not have the neurological substrates to be considered aware of themselves or their environments. I will argue however, that one cannot ignore the various differences between animals we can reasonably consider conscious (both in their physiology and environment that they need to be able to survive in), and those that we consider unconscious. These differences make it reasonable to assume that even though certain actions can happen unconsciously, there is a distinct advantage to rather having them happen consciously.

This view is held by thinkers like Peter Carruthers, who in "Brute Experience" (1989) makes the argument that animals have no feeling of what-it-is-likeness attached to their actions. His argument holds that just as a person can experience blindsight, and respond to stimuli without any phenomenal awareness, animals have no phenomenal awareness either, hence there is no need to treat them ethically based on it (*ibid*., p. 506-516). I will take on Carruthers view in more detail in the next chapter, particularly by distinguishing between affective and access conscious states, but for now we see there is an argument made that any conscious action can be done unconsciously. This is a denial of teleological functionalism, which "conceives of most mental capacities, both conscious

and unconscious, as typically playing some adaptive role for the systems that have them" (Flanagan 1997:363). Supporters of this view claim that "[c]onsciousness did not have to evolve. It is conceivable that evolutionary processes could have worked to build creatures as efficient and intelligent, without those creatures being subjects of experience. Consciousness is not essential to highly evolved intelligent life. This claim is true and important" (*ibid*., p. 357).

We see this claim confirmed in behavioural ecology as well: "Particular stimuli or contexts elicit certain behaviours. An animal need not know why those stimulus-response relationships exists. It need only know what the relationships are. This knowing need not involve conscious awareness, though in many cases animals are undoubtedly conscious of what they are doing; it need only involve the appropriate neurological connections… Animals can be goal directed without being purposeful, and they can behave appropriately without knowing why" (Wittenberger 1981:23). Condensed, this reiterates the point that as long as an action is valuable, the animal doesn't need to be consciously aware of that action.

These arguments assume that consciousness makes no valuable contribution to behaviour, and that behaviour without conscious awareness is completely possible. We take again our *C. Elegans* example, a nematode that feeds on its own in a safe environment without predators, and feeds together when predators are in the vicinity. Using Panksepp's terminology, we see basic affective states here, but there is not necessarily any awareness accompanying it. Again we can question why all animal behaviour can't be explained in terms of basic affective states, as the likes of Skinner, Wittenberger or Carruthers argue.

But again, animals that we can reasonably argue are self-aware do not live in such simple environments, and relying on such simple deterministic actions will not be as successful as they are for our nematodes, and thus it is possible argue that conscious awareness can arise as an adaptation and is valuable in a complex environment. Firstly then, let us reconsider the behaviour of a species such as *C. Elegans*, considered to be completely

unaware of itself and its environment in any conscious sense, and compare it to that of primates doing the exact same thing (feeding in groups when predators are around) – primates are arguably very much aware of their own actions, many of which they perform knowingly and intentionally.

Even though it is possible to explain the behaviour of both the nematode and the chimpanzee is behaviourist terms and avoid any references to the conscious intentions of either, this does not provide us with an accurate or useful account of the differences between the two observations. While we can say with some certainty that a nematode is unconscious, and is not aware of its own actions, we cannot carry this argument over to a vastly different type of animal. The chimpanzee obviously acts with motive and intent when presenting the same type of behaviour (Turner 2019:369). "Strictly speaking we could argue that consciousness is not required for either, but given what we know about different species, especially considering that a chimpanzee lives in a much more complex environment and needs to be able to have much more flexibility in its actions, we can reasonably assume that its actions require conscious awareness and intentionality for the actions to happen in the first place, and are necessary to give a full account of its behaviour" (*ibid*., p. 369) . Affective states already supply some natural flexibility, as we see in the behaviour of the nematode, but more complex forms of consciousness expand this flexibility to function in increasingly complex species and environments.

Taking this argument further, Flanagan's claim that any action taken consciously could have been performed just as easily unconsciously, seems to be blatantly false when looking at behaviour of certain primate species. To demonstrate this, one can look at the example of orangutans. They are able to remember and take the same paths to fruit trees that they are familiar with over their lifetimes, and should they find the fruit still unripe, they will leave it, and will return to those same trees later on when the fruit is ready to eat (Wise 2002:183). This demonstrates a sense of planning for the future. In the same way they are able to make tools, which they use to get to fruits and insects (*ibid*., p. 183). For them to be able to do this, they have to keep the idea of the tool in their minds, both in what it should look like and what it should be able to do, for as long as it takes them to

make it and use it. Both these abilities would not be possible without at the very least a form of access consciousness and mental representation (Turner 2019:367).

Building on this, many primates, like chimpanzees, pass mirror self-recognition tests. These are done by first anesthetising an ear or a body part that the chimpanzee cannot see on itself unless it can use a mirror, and then marking that area with paint. This rules out the possibility that a chimpanzee is responding to where it felt the paint being applied. When it locates the paint mark with the help of the mirror, the chimpanzee will try to remove the paint from where it has been applied (Box 1984:186). This indicates that the individual not only knows that the reflection is not another animal, which is a typical response of animals who cannot pass this test, but they know that they are seeing *themselves* in the mirror, they *recognise* themselves. Without a concept of self, this type of behaviour seems impossible, especially since, were this behaviour to be performed unconsciously, it does not seem to be evolutionarily advantageous in any way.

Finally, gorillas also demonstrate both an awareness of themselves as well as an awareness of others having their own minds, and are one of the few animals that can directly communicate with us through learning and using sign language. Furthermore they imitate, pretend and deceive (Wise 2002:225) and "…deception hinges upon the recognition of regularities in another's response to one's deceptive behaviour" (*ibid*., p. 226). This indicates that they can recognise that other individuals have different thoughts or feelings than they themselves do. All this combines to a strong argument for the ability to represent mentally, and the capacity to be aware of thoughts and feelings in themselves and others - in primates in general, and chimpanzees and gorillas in particular. Each of these behaviours also cannot take place at least without some aspects of consciousness in place, whether this be basic awareness of places, past and future, or of themselves as themselves, or as others with other thoughts or feelings (similar to those that they themselves have).

To summarise, there is a logical possibility that behaviour can be valuable to an individual without the need that that individual be consciously aware of it. But based on

the complexity of the lives or environments of animals we can reasonably assume to be conscious, simple stimulus-response mechanisms would not be adequate. In fact, certain behaviours, especially those observed in primates, are nearly impossible to explain without reference to consciousness.

3.8 Conclusion

In conclusion, in this chapter I have argued that, to the individual that possesses it, consciousness is extremely beneficial, and it is both physically and logically possible that it could arise as an adaptation. This position is held by both Damasio and Panksepp, who differ on exactly at what level of complexity consciousness becomes evolutionarily valuable, but both support the argument that consciousness is a valuable natural attribute developed as an evolutionary adaptation. The various aspects of consciousness, including basic affective, access, phenomenal and self-consciousness are useful to the continuation of life, especially as environments and the responses needed to those environments become more complex, and individuals become less likely to thrive using simple stimulus-response mechanisms.

There are, however, several challenges facing a view like this. Firstly, when speaking of the evolutionary benefits of consciousness in animals, there is the problem of gaining any knowledge of private mental phenomena through observations of behaviour. However, using what is known about the physiology of animals, combined with reasonable inferences, we can gauge the probability of consciousness. A second objection makes the argument that conscious thought does not influence behaviour, which would mean that the first problem, of inferring consciousness from behaviour, is not solved, and neither is the problem of explaining the evolutionary value of consciousness. Yet experiments such as Libet's, that seem to tell us that consciousness is an epiphenomenon, and not a cause of behaviour, consider only the types of decisions that have no serious consequence for an individual and therefore require no conscious reasoning in the first place, and do not confirm epiphenomenalism. And even if it is the case that consciousness plays no part in guiding behaviour, this does not mean that it cannot still form the basis of ethical

consideration. Consciousness' ethical value is not the same its evolutionary value, though there might be ties between the two in certain respects, but this will be discussed in detail in the next chapter.

Finally, there is the objection that consciousness does not need to arise at all, and any action that an animal can take, could be taken without consciousness as well. This is demonstrated when we look at biologically simple animals that most definitely do not have the neurological substrates necessary for consciousness, yet still seem to take deliberate actions. However, considering the physical differences between animals that can be considered conscious and those that aren't, as well as the differences in the environment they need to be able to act in, it seems unlikely that consciousness would never be present and beneficial.

This chapter then has established consciousness as a natural phenomenon, and most likely a natural adaptation as well. While there are many objections to consciousness as adaptation, or useful or even present at all in animals, these do not withstand proper scrutiny. The following chapter will then explore which aspects of consciousness, specifically affective, access, phenomenal and self-consciousness, can be considered ethically relevant and why. The rest of this thesis will then explore which types of consciousness can be reasonably attributed to which animals, and how this would influence ethical decision-making in cases of direct conflict between different species.

Chapter 4: Consciousness as Ethically Relevant

4.1 Introduction

Having shown that consciousness can arise as an adaptation in animals other than humans, given similar neurological substrates, I will now argue that consciousness can confer ethical status, and that different degrees of consciousness correspondingly confer more or less ethical status to the individual that possesses it. By looking at the theories of animal ethics explored so far, including those by Singer, Regan, VanDeVeer, Nussbaum and Wise, we will see that consciousness in some form is ethically relevant for all of them, and that some forms of consciousness are regarded as more ethically relevant than others for different thinkers[6]. I will continue to look specifically at self-, access and phenomenal consciousness, in more depth than I have done before, to see specifically what it is about each aspect of consciousness that makes it ethically relevant. Phenomenal consciousness is more easily regarded as ethically relevant, since it gives the individual concern for itself, as is self-consciousness, which provides an I or self to be concerned about. This does not, however, mean that access consciousness has no ethical relevance; although access consciousness can take place without any direct awareness of phenomenal consciousness at the same time, as in cases of blindsight, I will argue that phenomenal consciousness is prior to and necessary for access consciousness. In this way, the very existence of self- and access consciousness in an individual implies at least some form of phenomenal consciousness must also exist in that individual. Though it need not always accompany other aspects of consciousness, those aspects cannot exist without some form of phenomenal consciousness being present first. Hence any individual who possesses access or self-consciousness, also possesses phenomenal consciousness and the ethical status that accompanies it.

[6]In the eco-bio-communitarian view and through the concept of Ukama, animals are taken to possess ethical status not through individual qualities like consciousness, but primarily from how they relate to the whole. For this reason, it is omitted from this section.

This chapter will then set the argument out as follows: Firstly, I will demonstrate how most current theories on animal ethics have consciousness as their underlying basis, in other words how the qualities they argue are ethically relevant are dependent on consciousness. Next, I will look in detail at what both phenomenal, self- and access consciousness entail, and why the possession of certain of these qualities confer ethical status to the individual that possesses them. Further I will argue that self- and access consciousness is dependent on at least a basic form of phenomenal consciousness, and the ethical consideration attached to phenomenal consciousness can be provisionally carried over to individuals who show evidence of self- or access consciousness. If phenomenal consciousness, even in a very limited form, is necessary for self- and access consciousness, and these can more easily be inferred from behaviour than phenomenal consciousness (since we cannot prove outright that any other individual has something that it is like to be itself), then self- and access consciousness can be used to infer phenomenal consciousness and the ethical status it confers as well. This, however, does not necessarily mean that self- or access consciousness in themselves have no ethical value, however much of the value would be derived from the fact that it is an indicator of phenomenal consciousness. From here onwards then, this and the next chapters will look at how these different aspects of consciousness make themselves evident in the behaviour of animals, thereby conferring the ethical status that goes along with these aspects, and finally how this attribution of ethical status can provide novel solutions to cases of direct conflict between humans and animals.

4.2 The Ethical Relevance of Consciousness in Current Theories of Animal Ethics

Looking back at some of the main ethical theories on animal ethics, as explored in the second chapter, we can see that all of them, whether overtly or covertly, place ethical value on consciousness, or on qualities that are dependent on consciousness. I will demonstrate this in Singer's utilitarianism, which strongly emphasises phenomenal aspects of experience, and then Regan's concept of a subject-of-a-life, where the focus is on qualities that are dependent on the individual having at the very least a vague notion of self. VanDeVeer's emphasis on cognitive capacities is most clearly demonstrated through

access consciousness, and Nussbaum, in her capacities and flourishing view does not particularly focus on consciousness, but when pressed, also considers consciousness more ethically relevant than other factors. Finally, Wise's view, which of all the current theories is the most clearly focussed on consciousness, also finds different aspects of consciousness more valuable than others. I will make explicit how consciousness is linked to what each theory considers ethically relevant, and which type of consciousness (access, phenomenal or self-) is particularly valued and why, noting that not one of these theories consider something like Panksepp's basic affective states as ethically significant.

4.2.1 The Sentience View

To start then, I will consider Peter Singer's argument from utilitarianism, and I briefly restate it here. At its simplest, it states that pain is avoided, and pleasure sought out by any individual capable of experiencing these states, and ethical behaviour requires that our actions do not cause avoidable pain. A we have seen, Singer takes sentience to be this; the capacity to experience pain or pleasure. While preferences allow us to experience pain or pleasure to greater and lesser degrees, sentience, as discussed earlier, is essential for preferences in the first place. Since many animals have the underlying neurological substrates that allow them to feel pain, we should avoid causing them any; any animal that has the capacity to experience pain and pleasure is deserving of ethical consideration based on this fact.

The ability to experience pain and pleasure, however, is dependent on the individual being conscious, for Singer it is precisely because animals are sentient that we have ethical duties towards them. The type of consciousness that is important for Singer then, is mostly phenomenal consciousness, which allows that there is something it is like to experience pain or pleasure. Self-consciousness might allow for pain and pleasure to be experienced to a larger extent, but Singer does not make this differentiation and does not consider self-consciousness more ethically relevant in itself, only in that it can allow for a greater capacity for suffering. Instead of a graded approach when it comes to consciousness, Singer makes clear distinction between individuals that are sentient, and

those who are not. Anyone who has sentience, no matter the degree, is entitled to the ethical consideration that goes along with it. Nor is he concerned with access consciousness, whether or not an individual can process and act on information. Whether or not an individual can do this to a lesser or greater extent is irrelevant, only the ability to feel pain is ethically relevant.

It needs to be considered here already, that perhaps pain and pleasure are possible without a phenomenal aspect tied to them, in which case Singer's argument might rest on something other than phenomenal consciousness. There are arguments that claim that experiencing pain and pleasure is possible without phenomenal consciousness, as the one Neil Levy (2014) proposes. I will address this argument, and provide reasons why I find it unlikely that pain can be experienced without phenomenal consciousness, in 4.3.1. We can also see here that while sentience and phenomenal consciousness are quite similar, what is relevant for ethical consideration in Singer's view is that it gives us the capacity to experience pain and pleasure. However, phenomenal consciousness goes beyond that capacity: experiences can have a what-it-is-likeness to them without being painful or pleasurable at the same time.

But for present purposes, we can argue that here we see a strong focus on consciousness, particularly phenomenal consciousness, in a utilitarian account of ethics. Access and self-consciousness are not necessarily ignored or irrelevant in all utilitarian ethics, but because the focus is on the ability to experience pain and pleasure, and these are largely (although not necessarily solely) phenomenal in nature, their importance is limited. A more nuanced utilitarian account can give more ethical consideration to self-conscious individuals, based on the argument that they have the capacity to suffer more, which is an idea taken up by some of the following accounts, which we will address as they arise. Next then we look at Regan's account of animal ethics, particularly the ethical value he attaches to a subject-of-a-life, which is also heavily reliant on features tied to and made possible through consciousness.

4.2.2 Being a Subject-of-a-Life

For Regan, ethical consideration is granted to an individual if they can be considered a subject-of-a-life. I quote his definition again at length here:

[Being a subject-of-a-life] "involves more than merely being alive and more than merely being conscious. ... individuals are subjects-of-a-life if they have beliefs and desires; perception, memory, and a sense of the future, including their own future; an emotional life together with feelings of pleasure and pain; preference- and welfare-interests; the ability to initiate action in pursuit of their desires and goals; a psychophysical identity over time; and an individual welfare in the sense that their experiential life fares well or ill for them, logically independently of their utility for others and logically independently of their being the object of anyone else's interests. Those who satisfy the subject-of-a-life criterion themselves have a distinctive kind of value – inherent value – and are not to be viewed or treated as mere receptacles" (Regan 2004:243).

This statement can be broken down to see exactly which aspects of consciousness are required to confer ethical status on an individual, and we see immediately that it involves more than 'merely being conscious', and more than what Singer's sentience view requires. Being awake and aware, and able to have experiences (such as pain and pleasure) is not enough to be a subject-of-a-life, rather, for ethical consideration, other aspects are also required. However, phenomenal qualities are essential, even if they are not enough for ethical consideration by themselves. Individuals do need to be able to experience pain and pleasure, and have interests, but the other qualities deemed necessary to be considered a subject-of-a-life take us beyond phenomenal consciousness, and specifically to qualities dependent on self-consciousness.

Individuals need to be able to have a sense of both the past and the future, which is a quality typically associated with self-consciousness. To be able to consider the past, and oneself in it, one needs at the very least a notion of oneself as oneself to look back upon. Similarly with having a sense of the future, one needs an ongoing concern for oneself that

stretches past the immediate moment, and this requires the mental ability to consider a self that exists beyond the given moment. Furthermore, having a psychophysical identity over time requires a concept of self, even though this might be a vague one and not exactly like the concept of self that humans possess, but there is some self that exists over time, and that can experience its own life as going well or ill for itself. So we see that, for Regan, while phenomenal consciousness is not ethically irrelevant, the inherent value that accompanies being a subject-of-a-life is dependent on at least a basic form of self-consciousness.

4.2.3 Cognitive and Psychological Capacities

The cognitive and psychological capacities view, as set out by thinkers like VanDeVeer, argues that the more complex capacities an individual has, the greater ethical weight their interests have. “The interests of beings with more complex psychological capacities deserve greater weight than those with lesser capacities” (1979:158). He defends this view firstly by arguing that some individuals have a capacity to suffer more greatly than others, such as dreading a future event, or through the capacity of memory, to suffer for longer. So even in cases where both parties have the same basic interest at stake, one would suffer more than the other if this basic interest were overridden. This ability to dread the future, or remember a painful event, are both capacities that require self-consciousness. Because a self-conscious animal can suffer in ways that a non-self-conscious one cannot, it is considered ethically relevant, as it provides and enhances particular capacities that are ethically relevant.

This does not mean that the psychological capacities view ignores other types of consciousness, however. The capacity to feel pain and pleasure, which (as I will argue later) is dependent on phenomenal consciousness, is also a capacity that needs to be valued, and self-consciousness just allows for this capacity to a greater extent. Particularly in regard to psychological capacities, particularly mental states and emotional states, phenomenal consciousness seems essential, since there is something that it is like to have emotional or mental states.

What we also see in this view, is a strong focus on access consciousness. Many cognitive and psychological capacities are precisely illustrations of collecting information, accessing that information and using it for reasoning and for guiding action. The more intelligent an animal appears, or the more complexly they can engage with and respond to their environment, the more ethical status they should be awarded. Thus, access consciousness is valued in this view since it allows for more and more complex cognitive capacities. This view then takes many aspects of consciousness into account, as different cognitive and psychological capacities are dependent on these different aspects.

4.2.4 Capabilities and Flourishing

Next then, one can consider how ethical value is attributed to the individual in Nussbaum's capabilities approach. To briefly summarise her position here again, her account of animal ethics includes a Kantian element, where we need to respect each individual sentient being as an end in itself, and not merely as a means to something else (2011:237). Combined with this is the Aristotelian element that argues that every animal has a species-specific way of functioning that needs to be supported for the animal to flourish. An account of animal ethics needs "the ability to recognise and accommodate a wide range of different forms of life with their complicated activities and strivings after flourishing ... each creature has a characteristic set of capabilities, or capacities for functioning, distinctive of that species, and … those more rudimentary capacities need support from the material and social environment if the animal is to flourish in its characteristic way" (*ibid*., p.237).

In Nussbaum' account, every single functional aspect of an individual is taken into consideration, as a need to be fulfilled for the individual to flourish. Conscious awareness then, seems to have no particular importance over any other capabilities for her. In fact she criticizes Singer's account, arguing that utilitarianism "has no room for deprivations that never register in the animals consciousness" (2004:304). For example, an animal that has spent its entire life in terrible conditions, not knowing any better, might not be able to

conceive of a better way of life, or in Nussbaum's terms a life of flourishing, where all their capacities are met. Nussbaum argues that here what is missing from Singer's account, is that it "cannot consider … all the deprivation of valuable life activity that they do not feel" (*ibid*., p.304); it does not take into account that injustices can be done to animals, even if the animals are not aware of it.

In fact, if a creature has inherent value, then this value cannot be dependent on anything else, or in other words ethical consideration is not granted for any one particular capacity. And further, the capacities considered ethically relevant are any species-specific capacities that an individual needs to flourish. The majority of capacities needed to flourish, across all species, are, or at least can be, unconscious ones. She mentions, as central animal capabilities, a few that would at least to some degree be tied to consciousness, such as emotions, practical reason and senses, thought and imagination, while others, such as the capability to life, bodily health, bodily integrity, apply to a much wider range of species and have no direct ties to conscious awareness (*ibid*., p. 314-316). It would seem then, that for Nussbaum, consciousness plays no special role when it comes to attributing ethical consideration. Any capacity, no matter how basic or how complex, is valuable if an animal needs it to flourish in its species-specific way.

However, she does take into consideration that more "complex forms of life have more and more complex capabilities to be blighted, so they can suffer more and different types of harm. Level of life is relevant not because it gives different species differential worth per se, but because the type and degree of harm a creature can suffer varies with its form of life" (*ibid*., p. 309). While she does not specify here exactly what she means by 'level of life', from the context and further elaboration on this we can see that the level of life includes the level of conscious awareness: certain animals can suffer more, and suffering is tied to conscious awareness. For example when she speaks about when animals are used in lab experiments, she suggests using less complex sentient animals where possible, since they suffer fewer and lesser harms (*ibid*., p. 318). This of course, assumes that the ability to suffer is tied to awareness, which I will argue in section 4.3.1.

Thus for Nussbaum, even though conscious awareness does not necessarily require more ethical consideration, as a capability that has to be enabled for an individual to flourish, it requires more ethical consideration when considering the amount of harm that can be done to the individual. She argues that her approach is superior to a utilitarian approach. Sentience, or conscious awareness is not the single or the most important capability. Yet when it comes down to unavoidable cases, consciousness is in fact more relevant since it allows for more suffering, which coincides with a preference utilitarian account like the one Singer proposes. Since Nussbaum talks about higher levels of life, we can conclude that a self-conscious individual can suffer more than one that is only phenomenally conscious, and that she would also make this distinction. We can draw the conclusion that for cases of direct, unavoidable conflict Nussbaum will, in agreement with the sentience approach, consider consciousness as more ethically relevant than other capabilities.

4.2.5 Consciousness: Awareness and Self-Awareness

We move on then to Wise's approach to animal ethics, where the focus is very obviously on consciousness. First, briefly restated, Wise's approach is as follows. He argues that similar beings with similar qualities should be treated similarly, based on equality rights (2002:29), and that being a certain way entitles one to certain freedoms, based on liberty rights. What entitles us to liberty rights, for Wise, is practical autonomy (pA), as set out by cognitive ethologist Donald Griffin. An individual has practical autonomy if it can firstly, desire things or states of events; secondly, can intentionally try to fulfil these desires; and thirdly, if they "[possess] a sense of self sufficiency to allow [them] to understand, even dimly, that it is [they] who [want] something and it is [they] who [are] trying to get it" (*ibid*., p. 32). If we use equality rights as a basis, which always involves a comparison, then beings with similar autonomy values should have similar liberty rights (*ibid*., p. 236). This argument is similar to Singer's marginal cases, but the basis for equal treatment for Wise is practical autonomy, not the ability to experience pain and pleasure as it is for Singer, not that these two qualities are necessarily unrelated.

Wise uses Griffin's pA scale to split animals into four categories, and depending on which category an animal falls into, different rights and freedoms should be awarded to them. When it comes to the type of consciousness that Wise considers ethically relevant, we can see which type of consciousness would be required for his four categories in which he places animals, and how it is tied to the level of ethical consideration granted to each category.

The first category consists of animals with a pA of .9 or higher. These animals "possess enough practical autonomy to qualify them for the basic liberty rights of bodily integrity and freedom. They are probably self-conscious and pass the mirror self-recognition (MSR) test" (*ibid*., p. 36). They might also have a theory of mind and an understanding of symbols and language, and can "deceive, pretend, imitate and solve complex problems" (*ibid*., p. 36). These are animals like gorillas, orang-utans, dolphins, bonobos and humans.

We see here that for Wise, the type of consciousness that requires the most ethical consideration, is self-consciousness. The MSR test is one of the usual ways in which self-consciousness is attributed to animals, and again having a theory of mind is also considered something that is not possible without self-consciousness. The ability to deceive implies the ability to form a theory of mind of other individuals as well, also a characteristic of self-consciousness. For Wise then, self-consciousness is the form of awareness that should entitle the possessor of it with the most ethical consideration based on this fact.

Category two animals have an autonomy value between 0.51 and 0.89, and have a simpler consciousness. They may have a primitive sense of self, mental representations, and can act insightfully. For these animals, liberty rights depend on where they fall in the scale (*ibid*., p. 37). In general, a score above 0.7 qualifies animals, such as African Greys and elephants, for liberty rights. Again we see that self-consciousness is important for Wise, even if it is only a limited form of self. There is thus a continuum, and those higher up on the scale are entitled to more ethical consideration than others. Here we also see

access consciousness, in the ability to mentally represent and to act insightfully. These qualities are ethically relevant regardless of whether there is a sense of self, even if they confer less ethical status than even primitive self-consciousness. Wise does not specifically look at phenomenal consciousness, though we can reason that it would accompany even a primitive self-consciousness, though that need not be the case for access consciousness. Creatures who we can only reasonably infer to have access consciousness though (since phenomenal consciousness is hard to objectively observe), still get some rights, and we can conclude that for Wise, while self-consciousness might be more ethically relevant, access consciousness is also a type of consciousness that can confer lesser ethical status.

Category three is for animals that have a pA of 0.5, for animals that we do not know enough about to understand them and therefore cannot make a rational judgement concerning them. Again, Wise means here that we do not know enough about their level or type of consciousness. Finally, category four animals have a pA value below 0.5, and are evolutionarily remote from us. They show no indication of consciousness, but appear to be only stimulus response machines. These animals are not eligible for liberty rights, but there might still be a possibility that they are eligible for equality rights (*ibid*., p. 37). These are animals that definitely do not possess any sense of self, and probably no access consciousness either, since access consciousness requires some form of mental representation (as per Ned Block's definition) and requires more than just a stimulus-response mechanism. These animals might be phenomenally conscious, but if they show no sign of either self or access consciousness there is no way of determining this, and we must make the best inferences from the information that we have, and consider that all consciousness is dependent on certain neurological substrates that these creatures just do not have, and we can reasonably assume they lack consciousness in any sense.

To summarise, Griffin places animals on a scale of practical autonomy, assigning values from zero to one, moving up the scale the more evidence there is of conscious awareness or a sense of self. Wise takes up this scale and uses growing levels of practical autonomy to assign different levels of ethical concern, which entitle animals to some equality and

liberty rights. Self-consciousness is considered most ethically relevant, and as the sense of self becomes more pronounced, so does the level of ethical consideration awarded to it. Access consciousness is also considered important, but phenomenal consciousness is not focussed on as much in itself, except as a part of self-consciousness.

4.3 Aspects of Consciousness and their Ethical Relevance

Having seen how consciousness is considered ethically relevant in current theories of animal ethics, either because of qualities in itself or as means to other abilities or characteristics that are considered ethically relevant, we can move on to why these different aspects of consciousness are considered valuable. Thus far I have described the different aspects of consciousness briefly, and here I will look at phenomenal, access and self-consciousness in much more detail, and also at the way in which we come to have knowledge of these types of consciousness. This is particularly important for when one wants to attribute consciousness to animals that cannot communicate conscious experience to us through language, as well as when talking about phenomenal consciousness, as it can only be directly known by the individual experiencing it. Briefly stated, I will take access consciousness as the ability to take information about the environment and one's body and use this information to base action on, phenomenal consciousness as the phenomenal quality or what-it-is-likeness that can accompany access consciousness, and self-consciousness as having a concept of self and being able to reflexively think about this self.

4.3.1 The Ethical Relevance of Phenomenal Consciousness

We begin then, with phenomenal consciousness. I will briefly state what phenomenal consciousness is, and how we know it in other individuals, and then see why it is considered ethically relevant, in other words why it is a quality that should confer ethical status. Phenomenal consciousness then, as Block defines the term, involves what-it-is-likeness, it is experiential, and is distinct from intentional, functional and cognitive states (1995:230). We can refer to Nagel's definition of consciousness as well, an individual is

phenomenally conscious "if and only if there is something it is like to *be* that organism – something it is like *for* the organism. We may call this the subjective character of experience" (1997:519; author's own emphasis).

Phenomenal consciousness is difficult to establish in others, particularly in animals because they cannot verbally communicate to us whether or not they are phenomenally aware of their surroundings. However, if consciousness (and particularly phenomenal consciousness in this case) is something that could evolve through natural processes, and it plays an important role in our lives, and finally is founded in neurological substrates that we share with many animals, it seems unreasonable to say that animals do not share this quality with us.

When we look at why phenomenal consciousness is considered ethically relevant, we can look at how it is essential for the experience of pain or pleasure, an experience considered ethically relevant to some degree by each of the thinkers mentioned above. I start then with the experience of pleasure, which thinkers like Seager (2001) argue is a phenomenal state, while others, such as Levy (2014), argue that pleasure is possible without phenomenal consciousness of the state. Levy's argument might be substantiated by the example of moments of happiness in a state of 'flow', where a person is absorbed in an activity to such a degree that they are aware only of the activity and not themselves. This might be a valid case of pleasure, or happiness in Mill's terms, that does not require accompanying phenomenal consciousness. This is however, not a conscious-free state, one is still aware of the activity, and able to access information and apply it in the world. So perhaps even without phenomenal consciousness, one might have the ability to experience pleasure. However, on the other hand, pleasure without any form of consciousness seems unlikely. At the very least some engagement with the world (or more complexly, engagement of the mind with itself) is needed, and access consciousness is required for this.

When it comes to pain however, the necessity of phenomenal feeling attached to this seems much clearer. If one has a pain, or is in pain, but that pain doesn't feel like

anything, i.e., the pain is not 'painful', then we would assume that the experience of pain is not really there at all. Again, Levy counters this by looking at the case of pain asymbolia, a condition caused through prefrontal lobotomy or other means, where a person reports that pain feels the same way that it always feels, yet they are no longer bothered by it. "The aversiveness has vanished yet the experience remains the same" (Levy 2014). In this case, however, I argue that this type of experience of pain is not the same as the experience of pain that is ethically relevant. This would be pain as an access-conscious state, which I will explore, along with its ethical relevance, in 4.3.3.

Next, phenomenal consciousness is also considered ethically relevant, both for the sake of other non-phenomenal reasons, as well as in itself, and I refer to the work done by Charles Siewert (1998). Firstly, he argues that phenomenal consciousness is valued because it opens up the possibility for non-phenomenal features that we find valuable. Also, through a thought experiment where we are asked to imagine our lives without phenomenal consciousness, he argues that phenomenal consciousness is valuable in itself as well.

Firstly then, let us consider the non-phenomenal features of experience that we value, which are made possible through phenomenal consciousness. Siewert recognises that it is quite possible that there are some who would prefer not to have phenomenal consciousness at all, such as those who want to commit suicide, or that there are some phenomenal experiences one would prefer not to have at a given time (such as preferring not to hear music at a particular time) or an experience that one would rather never have (for example the experience of excruciating pain) (1997:310). However, most would easily and readily admit that some phenomenal qualities, at certain times, have value to us, and that there is value in other people also possessing phenomenal consciousness.

Some of this value is due to the fact that phenomenal consciousness is needed for other features that we value (*ibid*., p. 311). Siewert uses the example of the experience of viewing a sunflower, and the delight we take in it, and argues that if there were nothing that it was like to look at it, that delight would also be missing. Similarly we can imagine

tasting a good wine; it is the phenomenal aspect that makes it enjoyable. This argument states that one of the reasons that we value phenomenal consciousness, is as an enabling factor to experience pleasurable sensations, such as delight in viewing a sunflower, or in drinking wine. Here we see clear utilitarian ties again, as the argument states that phenomenal consciousness is necessary to experience pleasure (and on the other side, pain as well).

We can also link the argument from evolution here, where phenomenal consciousness is valuable to the survival of the individual. Here phenomenal consciousness is not necessarily valuable in itself, but valuable as it is useful for the continued existence of the individual. Consciousness is evolutionarily valuable for animals who are trying to maintain optimal bodily states. As soon as we are aware of the states in us or around us, we can actively respond to those states. This also applies to internal states, such as hunger. Here phenomenal consciousness specifically comes into play; as soon as hunger *feels* like something, it is easier to respond to that feeling. One of the evolutionary beneficial aspects of phenomenal conscious states being *like* something, is that it supplies motivation for action. Furthermore, in section 4.4, I will make the argument that phenomenal consciousness is prior to and instrumental to access and self-consciousness and the evolutionary benefits that they provide, and if we can reasonably infer one of these types of consciousness from behaviour, we can confirm that they are phenomenally conscious as well.

Moving on to phenomenal consciousness as valuable in itself, and not just as a means to other things we place value on, Siewert (*ibid.*, p. 312) asks us to consider the following: given the choice between not existing at all, or having phenomenal experiences that have no relation to the actual environment, arguably most would choose to keep the phenomenal experiences, without the non-phenomenal benefits that are attached to them. If our phenomenal experiences do not correspond to the real world, we can get no life-sustaining benefit from them, but we would still prefer them. This is his first argument in defence of phenomenal consciousness as valuable in itself, but it also demonstrates another non-phenomenal benefit of it; it gives us access to the world around us in a very

specific way. While access consciousness also takes in information from the world and allows us to act on it, which we will see later, phenomenal consciousness allows us to do this in better and more adaptable ways. Consider the example of pain: a simple unconscious reflex of avoiding painful stimuli would be beneficial, but the phenomenal experience of pain provides motivation for avoiding the painful stimulus in a more direct way than unpainful injury can. Similarly, concern for oneself is much more easily established when there is a phenomenal feeling attached to actions.

There are then quite a few valuable qualities that are reliant on phenomenal consciousness, but Siewert extends this argument to include phenomenal consciousness as valuable in its own right as well. We see this first demonstration in the choice between having no phenomenal consciousness, or having phenomenal consciousness that is inaccurate, where most would choose rather to be conscious even though it does not correspond to the outside world, indicating that phenomenal consciousness is valuable in its own right.

Siewert also illustrates this point through the following example: He asks us to consider a thought experiment, where we are faced with the following two options; to either continue to live our lives phenomenally consciously, or to undergo what he calls a 'pheno-ectomy', where we permanently lose the ability to experience anything phenomenally, though everything else remains the same (*ibid*., p.320). In both cases, the non-phenomenal benefits remain, so through losing phenomenal consciousness you do not also lose anything else. Siewert argues that if we would rather prefer keeping phenomenal consciousness in this case, we are not only valuing it for other benefits it provides, but for its own sake as well. We would rather have the feeling of what-it-is-likeness, the experiential aspect of consciousness, than live an otherwise identical life without it. This thought experiment does not in any way indicate that such a thing might be possible, or that other types of consciousness can exist without phenomenal consciousness, but it does establish that phenomenal consciousness is intrinsically valuable. We also attach value to it because it allows for other features that we value, but

even if all those other features were available without it, we would still want to remain phenomenally conscious.

4.3.2 The Ethical Relevance of Self-Consciousness

We see then that phenomenal consciousness allows for the ethically relevant experiences of pleasure and pain, and is valued both in itself and for other features it makes possible, and hence becomes ethically relevant. Specifically, for utilitarian ethics, the ability to experience pain and pleasure is dependent on phenomenal consciousness. We can then move on to self-consciousness, to see how we can have knowledge of it in others, and how it would confer ethical status on the individual that possesses it. Self-consciousness, briefly defined, involves but is not limited to reflexive consciousness, an awareness of one's own perceptions. It includes being able to think about thoughts and feelings, where the individual doing the thinking is aware of their own thinking, as well as being aware that others also have thoughts or feelings of their own (Natsoulas 1978:911). So the individual needs to be able to recognise itself as itself, as well as be able to recognise others as individuals with different thoughts or feelings. Other qualities also deemed necessary by some thinkers include possessing an episodic memory, being able to plan into the future, and metacognition (De Waal 2016:229). Of course this need only be true of fully fledged self-consciousness, and if we accept that there is a continuum, self-consciousness can be conceptualised as anything from a basic sense of self, to the one described here.

Self-consciousness, because of its quite clear, distinctive features, is easier to identify in others than phenomenal consciousness. While it shares some features of phenomenal consciousness, such as its subjective aspects, it also allows for quite complex behaviour. Both the ability to recognise oneself as oneself, and the ability to recognise others as individuals with other thoughts and feelings from oneself, have been demonstrated in certain species, particularly in primates.

Firstly, the recognition of oneself as oneself is usually demonstrated through the use of a mirror-self-recognition test, where animals are able to recognise themselves in the mirror, like the earlier-mentioned chimpanzees. Secondly, we can also see that some animals are aware that other animals have different thoughts or feelings from themselves, for example when we observe acts of deception, where an understanding that different individuals have different knowledge is essential. Cases of episodic memory and future planning are also easily demonstrated through behaviour; for example, monkeys will leave unripe fruits and return for them later; they can remember where they are and plan to return in the future.

Thus it seems apparent that knowledge of self-consciousness is more straightforwardly available to an outside observer, and if we can attach ethical value to it, that value should be conferred on all individuals that possess it. It also has strong ties to phenomenal consciousness, and whether or not the individual experiences itself as a self, whether it is *like* something to *be* itself, would again be a phenomenal aspect of that experience, and be problematic to determine. However, as I will argue in the final section of this chapter, phenomenal consciousness is essential for both self-consciousness and access consciousness, so even if we cannot identify phenomenal consciousness objectively, we can deduce it from the others. For now, however, we can explore how self-consciousness, both in itself, and as a means to other capacities, is considered valuable and hence ethically relevant.

Looking back at Siewert's argument for the inherent value of phenomenal consciousness, we can also use a similar argument for the inherent value of self-consciousness. When given the choice between experiencing ourselves as ourselves, or not experiencing a self, all other things remaining the same, we would choose not to lose our selves in this sense. In fact, without at least a basic awareness of self, it is quite possible that there would be no individual to be treated ethically or unethically, no particular self that could be harmed. However, as long as there is inherent value in other types of consciousness, this does not mean that individuals without self-consciousness have no claim to ethical status. What it does lead to, however, is the possibility that self-conscious individuals should be

afforded more ethical consideration than non-self-conscious ones, in situations where there is direct, unavoidable conflict.

In addition to inherent value tied to it, self-consciousness also offers indirect value, illustrated in the work of Antonio Damasio. Having a concept of self supplies a motivation for concern for oneself and one's continued existence over time (2010:26). Phenomenal consciousness already does this to an extent, since for Damasio having something feel like something, for example the feeling of being hungry, motivates us to take valuable actions based on those feelings. Self-consciousness extends on this motivation by giving us a self to be concerned about and take these actions for. Again, we see here that self-consciousness confers qualities we value, particularly the role it plays in our continued existence in the world.

Self-consciousness then, supplies us with an individual self that can be harmed or benefited, and is therefore entitled to ethical consideration. Even without a concept of self though, an individual can still experience pain and pleasure, so a lack of self-consciousness does not exclude and individual from ethical consideration. However, it does mean that it might have less ethical status than an individual who does possess self-consciousness, in cases of direct conflict, all other things being equal.

4.3.3 The Ethical Relevance of Access Consciousness

To define access consciousness, I quote Levy at length here, particularly to highlight his emphasis on the possibility of access consciousness not being phenomenally conscious at the same time. This will become particularly important later, when we look at his argument for access consciousness as being ethically relevant in its own right. For Levy, then,

"Access consciousness is not a state that has a phenomenal feel essentially associated with it, though it may be that access conscious states typically (or even always) have phenomenal qualities associated with them. Access consciousness is a type of availability

of informational contents: a state is access conscious if the person is able to access the contents. Paradigmatically, if the contents are access conscious, we can report on them; if they are not access conscious, we can't report on them. This isn't definitive of access consciousness, though: sometimes we become conscious of the content of our minds by reporting them, and sometimes we can't report what we are conscious of (because we have lost the use of our voice, say)" (2014).

This definition, when applied to animal consciousness, is problematic because of the aspect of reporting involved. While it may be possible for some animals, such as primates trained in sign language, to report on the content of their minds, this is not the case for the majority of animals. Ned Block gives a similar definition of access consciousness, which requires that content is being represented and is ready for use in reasoning, and secondly is poised for use in guiding action (1995:228). He acknowledges a third point that content could be ready for use in rational control of speech, but he exactly does not insist on this final point, to allow for the possibility that other animals might have access consciousness as well.

Access consciousness is perhaps more difficult to identify in other individuals, because of this reporting problem. However, it seems quite reasonable to infer it from behaviour, particularly complex behaviour that would require mental representation, and in this sense much more easily demonstratable than phenomenal consciousness in animals. If we can argue that in every case we see access consciousness in the behaviour of animals we can also infer phenomenal consciousness, we can also attribute the ethical relevance that goes along with it. The difficulty here could arise from how to distinguish between behaviour that comes about as mere responses to stimuli, compared to behaviour where the first two criteria of access consciousness are met: where content is represented, and used for control over action. This has already been addressed in the previous chapter, but is important to reiterate here; even if we were to argue that consciousness is not a requirement for any given action, and stimulus-response explanations can be given for many behaviours, given what we know about certain animals and their neurological substrates, we can reasonably assume that their actions require access consciousness. It is

difficult to attribute ethical value to affective consciousness demonstrated through stimulus-response mechanisms, and similarly if we cannot distinguish between access conscious states and affective states, neither seem to require ethical consideration since there is no individual that can be consciously affected. But animals who are truly access conscious, as opposed to merely affectively conscious, are much more complex and, as I argue, phenomenally aware, than animals that are only affectively conscious. The ability to mentally represent and consciously act on those representations presupposes phenomenal consciousness, as argued in detail in 4.4.2.

As to how access consciousness would confer ethical status on its own, however, Levy illustrates this by referring to three ethical theories. He looks at desire-satisfaction, objective list, and utilitarian theories of ethics. Regarding desire-satisfaction theory (the theory that our lives go well for us when our desires are met, and badly when they are not), he claims that here both an individual with, and an individual without phenomenal consciousness, are on even footing. A happy life is one where desires are satisfied, and if we could imagine an individual identical to us, except lacking in phenomenal consciousness, then it too must desire the same things a phenomenally conscious individual does, and pursue them in the same way. To some extent one could agree with Levy on this point, that things or states of desires are *met*, but as to whether they are truly *satisfied* is another question. I will return to this when looking at Levy's defence of someone who lacks phenomenal consciousness being able to experience pain and pleasure, or satisfaction in certain senses, but we can note here already that access consciousness does not seem to be ethically relevant, or at least not in the same sense that phenomenal consciousness is.

The next ethical theory he explores is one that provides an objective list of things that can be considered good, such as friendship, health, intimate relationships and the like. Levy claims that our phenomenally unconscious twin would have the same access to these goods as ourselves, but again, one could argue that the joy derived from these things is what gives them their value, or at least accounts for some of their value, and pleasure seems to be impossible without phenomenal consciousness. Levy mentions the idea of

flow, which is “experienced as absorption in an activity; the person is aware of the activity and not themselves” (2004), which is pleasurable even though one is not aware of oneself enjoying it, and elaborates that in many cases of joy or satisfaction, there are also cognitive or functional features that are valuable, even without phenomenal states attached to them. This argument basically states that access consciousness, particularly here in the ability to become absorbed in pleasurable activities which require access consciousness to pursue, are ethically valuable in themselves, even if there is no phenomenal feel attached to them. However, I argue that pleasure or pain cannot be truly experienced without phenomenal consciousness, or at least the experience is not ethically relevant in the same way that a phenomenal one is.

I start then with the experience of pleasure, which thinkers like Seager (2001) argue is a phenomenal state, while others, such as Levy, argue is possible without phenomenal consciousness. This might be substantiated, as Levy argues, in moments of happiness in a state of ‘flow’, where a person is absorbed in an activity to such a degree that they are aware only of the activity and not themselves. This might be a valid case of pleasure, or happiness in Mill’s utilitarian terms, that does not require accompanying phenomenal consciousness. This state of ‘flow’ does still require access consciousness, the availability of mental concepts still need to be there for the activity to take place successfully, though the individual doesn’t need to be aware of, or experience any phenomenal aspects. So even without phenomenal consciousness accompanying it in every instance, one might have the ability to experience pleasure. However, pleasure without any form of consciousness seems unlikely.

However, considered ethically, we may value both phenomenal and access conscious pleasure equally, both add value to our lives and we could reasonably assume that a person or entity would not give either of them up, or in other words would regret the loss of either type of pleasure equally, that they both have intrinsic value. This is more obvious in the case of phenomenal consciousness, since the feeling of what it is like is what makes certain things more pleasurable; however pleasure in states of flow can also

be considered valuable. One might have more value than the other if forced to choose, but both can be considered good in their own right.

When it comes to pain, however, the necessity of phenomenal feeling attached to this seems much clearer, as discussed in 4.3.1. Firstly, from an evolutionary perspective pain that is not experienced as painful is not something that would really be considered valuable, either in itself or for some other end, since it provides no motivation for preventing painful situations. Secondly, even if it were somehow evolutionarily valuable to experience pain in an access-conscious state (perhaps it could still lead to avoidance of painful situations even without the motivation provided by the phenomenal feel), this type of pain is not what is considered ethically relevant in the ethical theories considered so far, phenomenal consciousness of pain still being the kind of pain that is considered ethically relevant; pain that *feels* like something to experience, rather something painlessly recognised and responded to.

Firstly, when considered from an evolutionary standpoint, pain, as phenomenal experience, exists to motivate the individual to cease whatever is causing that pain. It is exactly the phenomenal character of pain that allows this to happen, it is the *feeling* of pain that makes it undesirable. This is why access conscious states (which are unaccompanied by phenomenal consciousness) of pain don't seem to be ethically relevant, or at least not in the same way that phenomenally conscious pains are. If we consider the example Levy uses, of pain asymbolia, if the individual no longer experiences the aversiveness of pain, there is no motivation to avoid it. It is exactly the phenomenal feeling of pain that makes pain bad. Levy argues that the badness of pain does not lie in the phenomenal experience of pain, but if we reconsider Damasio's argument here, that consciousness evolved to give individuals a continued interest in their own existence, and a means to engage with the environment in more complex ways, it seems unlikely that pain without the phenomenal experience of it can serve this function to a useful degree.

We see the benefit of pain clearly demonstrated when individuals, due to some condition, are not able to feel pain. Pain asymbolia, that Levy speaks of, is a rare condition where a person cannot feel pain, and this condition is extremely dangerous since these individuals easily injure themselves without meaning to, and they often experience trauma and bone fractures due to this condition. Pain is the body's way of keeping us alive, and being able to experience pain-having something it is like to be in pain, is very valuable, and present in a large variety of animals. The lack of phenomenal pain, such as in the case of pain asymbolia, is quite obviously harmful to the individual who has this condition, and pain without the phenomenal feel attached to it seems to have no evolutionary value. Access-conscious pain, without phenomenal aspects tied to it, seems quite unlikely. And again, even though we can never empirically prove that another individual has this aspect of phenomenal consciousness, we can reasonably assume that, given the evolutionary value of it, along with similar neurological structures, this ability is shared with other animals. When we observe an animal avoiding painful experiences, for example a dog jumping over a fence to avoid an electrified floor (a classic behaviourist experiment), we can with some surety say that the animal is access conscious in that it is trying to act on information from the environment and is basing its behaviour on this information. But along with this, though we cannot demonstrate it in a similar empirical fashion, we can be sure that there is a phenomenal feeling of pain also accompanying this behaviour.

Secondly, even if the type of pain that Levy talks about, pain that isn't phenomenal in character, were really considered pain and not some other sensation, it is not clear why this type of pain would be ethically relevant. It might be considered pain, in an access-conscious way, but it is not the pain that say utilitarian thinkers are concerned with in any meaningful way. It is precisely because pain is something that is to be avoided, that urges the utilitarian to say that pain is bad, and something we should avoid inflicting on others. So I argue that the phenomenal feeling of pain, that which causes aversion to experiences that produce it, is what is bad about pain. While pain without the phenomenal experience of it might be bad in other ways (negatively impact survival), it is not ethically bad in the same sense, since it does not cause the particular phenomenal aspect of suffering for the individual who experiences it.

4.4 Phenomenal Consciousness as Foundation to Other Types of Consciousness

Having shown that both phenomenal and self-consciousness can confer ethical status, and that access consciousness cannot, or at least not to the degree that the others can, we can now move on to why phenomenal consciousness would be considered necessary and prior to the other two. Here it will be important to briefly reconsider Panksepp's primary affective consciousness. While it might form the absolute foundation for other types of consciousness, including phenomenal consciousness, it is not ethically relevant in the way that other types of consciousness are. It is primary, but does not supply us with any ethically valuable capacities in the way that phenomenal consciousness does. Although ethical consideration can come from other factors, the focus here is on consciousness, and raw unreflective consciousness does not tie into any of the ethically relevant factors considered so far. Rather I argue phenomenal consciousness is what is ethically relevant, and while it might be built on basic affective states, it is again the building block for other kinds of consciousness.

To return to my argument then: Tyler Burge states the following: "Any being that is not phenomenally conscious is not conscious in any sense. There are no zombies that lack phenomenal consciousness but are conscious in some further way" (1997:384-385). In other words, he states that neither access consciousness, nor self-consciousness is possible without phenomenal consciousness. His argument can be broken down into three main points. First, any type of consciousness presupposes phenomenal consciousness. Secondly, he argues that access conscious states, while presupposing phenomenal consciousness, need not themselves be phenomenally conscious every single time. Finally, he argues that it is possible to have phenomenal states without being conscious of them (*ibid*., p 383).

The second and third arguments demonstrate that we can be access conscious without necessarily having a feeling of what-it-is-like accompanying it every single time, and that we can have an experience of what-something-is like without necessarily being aware of

it at the time, for example being hungry, but only realising you were experiencing that state when brought to think about it. The claim that is most important to us, though, is the first, which claims that even though phenomenal consciousness does not always accompany other types of consciousness, it is prior to and necessary for the others. When it comes to consciousness in others, particularly animals, we can more easily attribute other types of consciousness to others through studies of behaviour, and from there attribute phenomenal consciousness, and the ethical consideration that goes along with it, to them as well.

Unfortunately, Burge's defence of his first statement is lacking. He says: "A phenomenal zombie has no consciousness – no matter how efficiently rational its behaviour, verbalisations, and reasoning. I do not know how to defend this view. I do not know why it is true" (*ibid*., p. 386). This means that one will need to establish why phenomenal consciousness would be necessary for the other two, as well as demonstrate why phenomenal consciousness would develop before others. This is the argument that I will be making: Phenomenal consciousness is the most simple form of consciousness that involves any awareness (so not basic affective states), and would have been the first to evolve naturally since it offers various benefits to the individual that possesses it, and that self- and access consciousness are extensions and complexifications of phenomenal consciousness.

Firstly then, pain and pleasure are essentially phenomenal experiences. Avoiding pain and pursuing pleasure are two of our most basic life-sustaining drives. Burge refers specifically to pain, its presence in even very neurologically simple animals, and its essentially phenomenal characteristics, and I will build on this. The ability to respond favourably to things that are good for us, and negatively to things that are bad for us, is one of the most basic evolutionary drives we possess, and even animals with no or very little neurological substrates can respond in such a way, such as amoebae drawing away from dangerous stimuli, or moving towards a light source. As soon as doing things that are good or bad for survival start feeling like something, when it is like something to experience pain and pleasure, these responses can become more and more pronounced.

As demonstrated with the case of pain asymbolia earlier, the ability to feel pain and pleasure supplies a type of motivation to continue doing things that are good for us, and avoiding things that are bad for us. Thus it seems there is a case for phenomenal consciousness being foundational for other aspects. Based on this we can look at how phenomenal consciousness would be necessary for self-and access consciousness in particular.

4.4.1 Phenomenal Consciousness as Foundation for Self-Consciousness

Regarding self-consciousness, we do not have to set out a direct, graded development from basic phenomenal consciousness to self-consciousness. For the purpose of the argument presented here it will be sufficient to demonstrate that any concept of self is impossible without there first being phenomenal consciousness, even though the two do not amount to the same thing. But considering that self-consciousness has some very distinct features that can be more easily identified through behaviour than phenomenal consciousness, we can use it to establish phenomenal consciousness, and the ethical consideration that goes along with it.

From an evolutionary standpoint, the benefits of self-consciousness seem like a natural extension of the benefits provided from phenomenal consciousness. Phenomenal consciousness creates motivation for pursuing actions that are good for survival, and avoiding actions that are bad for it. Self-consciousness adds an I, or self, to be concerned about. This does not have to be full blown self-consciousness, like we find in humans, to be valuable. Even a basic concept of self would offer benefits to the individual equipped with it. But to form a concept of the self at all, even a modest basic awareness of self, is impossible without phenomenal consciousness. I argue that we cannot form a concept of self without it being something that can be acted upon, something that can have experiences, in other words a feeling thing. And experiences, the very experiential nature of phenomenal consciousness is essential for this. Even if the self is just a bundle of experiences as David Hume (1738) argues, this is completely compatible. All that is required to create an ethical obligation based on the idea of a self is a phenomenal feeling

of a unified self, whether that self exists beyond individual experiences or not. There is an experience of being a thing that has conscious concern for itself and for its continued existence.

Self-consciousness, by definition, is reflexive consciousness, an awareness of one's own perceptions. For this to be possible, it has to be *like* something to reflect, there has to be an experience or feeling of being aware of one's own thoughts. If it isn't like something to reflect, there is arguably no reflector, nor anything to reflect upon. One cannot be said to be aware of oneself without there being something to be like oneself. Self-consciousness also includes being able to think about thoughts and feelings, where the individual doing the thinking is aware of their own thinking, as well as being aware that others also have thoughts or feelings of their own. Again, being able to comprehend that others have thoughts or feelings, is based on the idea that there is something that it is like to be someone else, which is not the same as it is like to be ourselves. To be able to have an awareness of others that feel in a way that it different from us, presupposes that there is something it is like to be ourselves, and therefore also something it is like for others to be. Thus we see that self-consciousness without a phenomenal aspect tied to it seems impossible.

4.4.2 Phenomenal Consciousness as Foundation for Access Consciousness

Self-consciousness then seems quite straightforwardly linked to phenomenal consciousness, and can confer ethical status in its own right, and is relatively easy to identify in others through behaviour. However, only relatively few animals demonstrate this type of consciousness, and if we were to attach ethical consideration to those that do not, one would have to rely on access consciousness demonstrable through behaviour. However, contra to Levy's argument, I have argued that access consciousness does not truly confer ethical status unless it is reliant on phenomenal consciousness as well. For example when he talks about asymbolia, where a person still feels pain but is not bothered by it, he claims it is still pain, but I argue that pain is essentially phenomenal. Either a person with asymbolia does not feel pain, or if they do, it is not an ethically

relevant type of pain. It then remains to be shown that access consciousness would never develop without phenomenal consciousness being there first, and from there we can then argue that if an individual demonstrates access consciousness, they also possess phenomenal consciousness and therefore a claim to ethical status attached to that consciousness.

We can consider again the argument Carruthers makes against animals being phenomenally conscious, even though they might demonstrate behaviour that makes them seem access conscious. He uses the example of a person driving a car home, where they successfully arrive home, but were thinking of other things and have no memory of *what it felt like* to be driving home: no phenomenal feel attached to the drive (1989:505-506). He uses this as a basis for claiming that access conscious behaviour in animals needs no phenomenal consciousness, at the given moment, nor needs to be present at all, in the individual animal. But phenomenal consciousness is precisely what differentiates access consciousness from basic affective states, the first can't develop without phenomenal consciousness. It is the foundation for access consciousness, even if it isn't present every single time. The types of organisms that demonstrate basic affective states truly might have no phenomenal consciousness at any point in their lives, and be mere stimulus-response mechanisms. But complex tasks, those that we attribute access conscious states to, can only be done by individuals who are also at some stage phenomenally conscious. The ability to have things phenomenally *feel* a certain type of way is a building block or foundation to being able to respond to those feelings in the way access consciousness demands, that goes beyond mere mechanistic responses.

Responses to the environment are optimised through consciousness. I argue that being phenomenally aware is exactly what makes access consciousness different from stimulus response actions. We know that some animals are able to respond to the world without any consciousness being present, but access consciousness is more than just being able to react to the world in set ways. If we stick with Block's definition, a state is access conscious when informational content is accessible for use in reasoning, and can be used for guiding action. This means that information must be represented in some way, and

that representation is impossible without phenomenal consciousness. It may be possible for a simple organism to respond to stimuli in a set way, but it needs no representation to be able to do so. However, I argue that representation is an essential element of access consciousness.

Here again we see the importance of being able to distinguish between animals that are acting by means of stimulus response mechanisms, and animals that are acting consciously, here particularly access-consciously. While this distinction so far has been made on the basis what we can reasonably assume given the evolutionary value of consciousness and what we know about the neurological substrates of animals, I want to make a further distinction; what separates conscious behaviour from stimulus-response behaviour, is the ability to mentally represent. Behaviour based on stimulus-response mechanisms needs no mental representation, since there is nothing needed to reason about, responses are automatic. Furthermore the types of animals that we consider lacking any consciousness do not have the necessary biological components to make mental representation possible. However, from Block's definition, we see that mental representation is an essential aspect of access consciousness.

How then, is representation dependent on the phenomenal aspect of experience? I argue that the representation is impossible without phenomenal consciousness, although a certain access conscious state may not have a phenomenal aspect attached to it at a given moment, it would not be possible at all without phenomenal consciousness existing prior to it. Firstly then, to have a mental representation of something at all there needs to be a perceiver of that representation. One needs a point of view, which is impossible without phenomenal consciousness. A point of view does not necessarily require a fully fledged self, or completely self-conscious individual, but it does require at the very least an experiencer. If there is nothing that it is like to be something, then there is no perceiver at all; without something there, (not necessarily a self) to experience events, representations can't be made, or at least not representations *to* any subject, and can definitely not be willingly acted upon. While we do not necessarily have to have phenomenal consciousness of any particular representation, we cannot form these representations at

all without a subject, and the subject cannot exist without phenomenal consciousness, since it provides us with the perceiver that the representation is made to. Thus we see that access consciousness requires phenomenal consciousness, and even though phenomenal consciousness cannot be readily observed, access consciousness implies it.

4.5 Conclusion

To conclude, we see that current theories of animal ethics all take consciousness into account. Phenomenal, self- and access consciousness are all either found directly valuable, or valuable in that they allow for other features that are considered ethically relevant. Each aspect of consciousness, on its own, has either intrinsic value or derived value, or both. While phenomenal consciousness is generally considered to be the most ethically relevant, self-consciousness can also be shown to be intrinsically valuable, in that, given a choice between possessing it or not, most would choose to have it, even without any of the benefits attached to it, as is the case with phenomenal consciousness. Access consciousness, however, does not provide intrinsic value, or at least not to the same degree as the other two. However, access consciousness is an aspect of consciousness that is easily demonstrated through behaviour, and if it can be demonstrated that phenomenal consciousness is prior to and necessary for access consciousness. Any individual who is demonstrably access-conscious is also phenomenally conscious, and hence entitled to all the ethical consideration that goes along with it. We see that self-consciousness is dependent on phenomenal consciousness since phenomenal experience is necessary to create an experiencer, and access consciousness is dependent on it for mental representation.

Thus, having demonstrated that, even though we cannot directly observe phenomenal consciousness, we can imply it from other aspects of consciousness, the problem of inferring phenomenal consciousness from behaviour has been addressed. What this implies for an account of animal ethics is that if an animal demonstrates self- or access consciousness, it also possesses phenomenal consciousness and is entitled to the ethical consideration that goes along with it. In the following chapter then, I will look at specific

cases of animal behaviour, and how conclusions are drawn about how conscious we can reasonably assume they are through these observations. Here I will also argue that different behaviour will lead us to the conclusion that different species possess aspects of consciousness to different degrees, and since some of these carry more ethical weight than others, are entitled to more ethical consideration in conflict situations. Finally, in Chapter 6, I will argue that this graded approach can offer solutions in cases of unavoidable, direct conflict between individuals or groups, where other accounts cannot.

Chapter 5: Inferring Consciousness from Behaviour

5.1 Introduction

From here I begin exploring how consciousness is or can be attributed to animals, based on their observable behaviour. “The idea that animals other than humans have consciousness has been a hard idea to accept. We have growing evidence for qualities like episodic memory, future planning, and delayed gratification in non-human species, yet there is still a tendency in scientific circles to deny that animals are more than mere stimulus-response machines” (De Waal 2016:2289). But, as mentioned earlier, “(e)ither we abandon the idea that these capacities require consciousness, or we need to accept the possibility that animals may have it, too” (*ibid*., p.229). As has been argued throughout this thesis, through the work of Damasio, Regan and others, there is plenty of support for consciousness arising as adaptation, as something that is evolutionarily beneficial to the individual with it, and animals share the biological substrates necessary for consciousness with us. And given the large role of consciousness in human behaviour, we can reasonably assume that it plays the same role in animals. We can also argue that studying their behaviour (combined with what we know about the necessary physical components required for consciousness) can give us insight into how animals are conscious and about what they have conscious awareness. Objections to these views, such as the problem of inferring consciousness from behaviour, or that consciousness might be an epiphenomenon or not necessary at all, have also been addressed.

Having demonstrated in the previous chapter that we can infer different types of consciousness, particularly that we can infer phenomenal consciousness from access and self-consciousness, we can move on to illustrating that these types of consciousness are indeed demonstrably present in animals. To do this though, we will need to definitively argue that inferring consciousness is the best way to explain animal behaviour. This has already been done to a large extent in this thesis, but here a final argument will be presented, not only for the accuracy, but also for the usefulness of views on animal behaviour such as cognitive ethology, that take consciousness into account, compared to

views such as behaviourism, which don't. Here I will also consider Dennett's proposed methodology for ethologists, where a scale of intentionality can be used to explain behaviour.

Building on this argument; that taking consciousness into account gives us the most accurate presentation of animal behaviour, I will then move on to looking at which behaviours would be indicators of which kinds of consciousness, and look at specific illustrations of this. I will look particularly at three aspects of consciousness, access, phenomenal and self-consciousness, and tie these types of behaviours to Dennett's scale of intentionality, creating a loose tie between different levels of intentional descriptions of animal behaviour and different types of consciousness. Hence, if we can attribute a level of intentionality to an animal's behaviour, we can attribute a certain type (or types) of consciousness as well, as well as a certain level of mental representation needed for the behaviour. Firstly then, I will argue that intentional behaviour is an indicator of different levels of mental representation and aspects of consciousness. Secondly, I will look at which levels of intentionality can be attributed to different behaviours, and how these and the accompanying mental representation would require certain types of consciousness. Finally, I will also address specific objections in each case. From there onwards, this thesis will apply the above-mentioned to concrete cases of human-animal conflict, and see how it offers better solutions to this conflict than other theories of animal ethics.

5.2 Behaviourism vs. Cognitive Ethology

To tackle the problem of attributing consciousness to animals, one needs to contextualise the problem. We have dealt with many of these problems already, but even if one generally accepts the argument that animals have consciousness, and that this attribute influences their behaviour, the problem remains that some animals live in the world in such drastically different ways from us, which makes it incredibly difficult for us to know how they exist in and experience the world. A classic example is Nagel's bat; how to imagine experiencing the world with a completely different sense, in this case echolocation. Behaviourism might seem to offer a solution here, by explaining behaviour

in simple objective terms. But again, just because it is an easy way does not mean it is the right way, or even an accurate and useful way. In fact, in section 5.3 I will argue that an approach based on consciousness, and intentionality in particular, can precisely overcome the barrier of other ways of experiencing the world, since it is not necessarily particular senses or ways of existing that are indicators of consciousness, but how we relate with the world intentionally. In this section then, I will argue that behaviourism, and behavioural ecology in particular, is not a viable nor accurate way of explaining animal behaviour. Firstly I will look at what behavioural ecology is and will consider some of its main arguments. Next I consider cognitive ethology, that provides us with a consciousness-based account of animal behaviour, which I argue provides us with a more accurate and more useful account, while at the same time overcoming the problems that behaviourism raises in attributing consciousness to animals.

5.2.1 Behavioural Ecology

Behavioural ecology studies the behavioural interactions we find between individuals in a given population or community, particularly focussing on how individuals cooperate and compete amongst each other. This is usually studied from an evolutionary context. Most behavioural ecologists still use as a foundation for their observations the claim that private mental experiences, like thinking consciously about oneself, others or the environment, should be ignored when conducting serious scientific research. The reasons for this are twofold; firstly, behavioural ecologists insist that conscious thinking is unmeasurable "private" phenomena, that is experienced and perceived solely by the one who has those experiences and therefore impossible to objectively verify (Griffin 2001:21). "In other words, there is no reasonable, or scientific way to investigate claims related to consciousness, because we have no way of confirming whether or not an individual has the internal experience of being conscious" (Turner 2019:365). As a second point, they maintain that as long as the action an animal performs is valuable to its continued existence, an accurate explanation has no need to involve conscious awareness, nor does the animal need to be consciously aware of its behaviour while it is performing it (Griffin 2001:21).

I quote behaviourist Wittenberger here, as he clearly demonstrates both abovementioned problems with studying the influence of consciousness on behaviour scientifically: "Behaviour is discussed 'as if' behaviour results from conscious decision-making … This procedure is just a shorthand logic used for convenience. We cannot assume that animals make conscious decisions because we cannot monitor what goes on inside their heads" (1981:23). Clearly demonstrated here is the first objection that behavioural ecologists have: that conscious experiences are private and subjective phenomena, therefore studying them objectively is not possible.

He continues: "Particular stimuli or contexts elicit certain behaviours. An animal need not know why those stimulus-response relationships are. It needs only know what those relationships are. This knowing need not involve conscious awareness, though in many cases animals are undoubtedly conscious of what they are doing; it need only involve the appropriate neurological connections … Animals can be goal directed without being purposeful, and they can behave appropriately without knowing why" (*ibid*., p. 23). Here we see the second problem behavioural ecologists have with using consciousness as explanatory tool in the field of animal behaviour – there is no logical necessity that an animal needs to be aware of its own actions, as long as those actions are evolutionarily valuable. Wittenberger considers that "it might be possible that in some cases animals are conscious of their actions, but whether or not they are, there is no need to refer to consciousness when explaining the behaviour. Combining this with the first objection, even if reference to consciousness were necessary, they argue there is no objective way to study it" (Turner 2019:366). As mentioned before, the second objection has been dealt with in different parts of this dissertation, by the likes of Damasio, Regan, Griffin and others. It seems very reasonable to consider many animals as consciously aware, and to argue that their behaviour is influenced by this consciousness. The first objection though, that we cannot know or study consciousness objectively, remains problematic.

5.2.2 Cognitive Ethology

It has been demonstrated repeatedly in this thesis that it is sensible and practical to argue that certain animals have conscious awareness, particularly those species who through their behaviour seem to indicate that they can perform complex mental functions. We've looked at examples of this behaviour from primates (although many other species, further removed from us evolutionarily, might also possess these qualities) and combined with the support from evolutionary science we have a strong case for the idea that conscious awareness developed naturally in animals. Cognitive ethology, a field of science that aims to use conscious awareness to explain why animals behave the way they do, both expands on these types of arguments as well as finds its foundations in them. As a branch of zoology, ethology aims to study animal behaviour from the perspective of evolutionary science. It considers and studies behaviours "such as kinship, cooperation, and parental investment, conflict, sexual selection, and aggression in a variety of species" (*ibid*., p. 367). The scope of things being studied by ethology is a near-identical to that of behavioural ecology, seeing as they both mean to provide us with an understanding of how and why complex behaviour in animals comes about, based on evolutionary explanations of these behaviours. The difference lies in the fact that behavioural ecology actively avoids explanations of behaviour that make reference to consciousness as explanatory tool, whereas cognitive ethology has no such aversion. Cognitive ethology finds its foundation in the claim that consciousness is an adaptation and comes about through natural processes, since it is a highly beneficial quality to have, and we can reasonably and accurately study this consciousness through the behaviour of animals (*ibid*., p. 367).

In the main, cognitive ethology studies both how consciousness came about through evolutionary processes, as well as how useful it is to the continuation of life. It claims that just because consciousness is not as easily observable or measurable as other qualities, it does not mean that we can neglect to take it into consideration if we want a full and accurate explanation of animal behaviour. It holds that consciousness has a natural evolutionary origin and foundation, and rather than being a purely human

characteristic it is something that we share with a variety of other animals. It argues that we can quite reasonably speak about consciousness in animals and draw this knowledge from how we see them behave, in fact leaving out reference to consciousness leads to incomplete and incorrect accounts of behaviour. This is precisely what behavioural ecology rejects and claim to be unscientific, since behavioural ecologists claim that "we can neither speak meaningfully about consciousness, nor do animals necessarily need to be conscious of their actions to perform them" (*ibid*., p. 364). If behaviour contributes to survival of the individual, we do not need to speak of consciousness in our explanations of said behaviour, nor is there any need for the individual to possess it.

When it comes to how it would explain behaviour then, one option we can look at is the description of behaviour in terms of intentionality, as proposed by Daniel Dennett. He originally suggested this scale of intentionality as a methodology that cognitive ethologists could use to explain behaviour. Dennett uses the intentional stance as a way of predicting the behaviour of any complex enough system *as if* it is acting intentionally, so it could similarly be used to explain a chess-playing computer (Dennet 1971:87). An intentional system then is one to which we ascribe the possession of certain information, and directedness towards certain goals (*ibid*., p. 90), though that intentional system need not truly be conscious in any sense.

However, my use of Dennett's intentional stance here in no way implies that animals are just as mechanical and unconscious as a chess-playing computer, although they can be explained in the same way. The argument for animals as conscious, being able to access and act on information, act in a goal-directed fashion, and generally intend their actions has been made throughout this thesis. Combined with what we know biologically and evolutionarily about consciousness, we can also reasonably infer which animals are likely to be conscious and which not. This forms the foundation of distinguishing between true intentionality and 'as-if intentionality, or affective and truly conscious states, giving us a reasonable and accurate means of attributing different aspects of consciousness to animals.

If we can then reasonably assume consciousness in an animal, then we can use Dennett's intentional stance to talk about certain conscious beliefs or desires in the individual, and make predictions on what it will do based on these mental states. As Dennett puts it: "first you decide to treat the object whose behaviour is to be predicted as a rational agent; then you figure out what desires it ought to have, on the same considerations, and finally you predict that this rational agent will act to further its goals in light of its beliefs" (1989:17). Hence once we accept that an individual is conscious, we can use the intentional stance to attribute beliefs or desires to an individual, and predict that it will act in such a way as to further its goals based on these beliefs.

To return to my main argument then, this scale of intentionality, used to attribute mental states to other individuals, starts 0, where a 0 order explanation is appropriate for behaviours that seem to be based on simple stimulus response mechanisms (Dennet 1983:345). 1st order explanations are ones that take non-intentional facts about the behaviour in question and use those to explain said behaviour. 2nd order and higher explanations however, take intentionality into account, and describe behaviour as something that is based on, and influenced by, certain beliefs about the world, and intentional responses to these beliefs. A 3rd order explanation uses a representation of second order intention as explanation for behaviour, and 4th order a representation of 3rd, and so on as we continue upwards. This can be demonstrated through the simple example of a monkey climbing up a tree. Starting with the lowest intentional order, a 0 order explanation wouldn't involve any intentionality, rather it would just describe a monkey climbing up a tree. A 1st order account would provide a causal factor and explain what caused the behaviour, for example there might be a leopard in the vicinity that caused the monkey to climb up the tree. A 2nd order intentional account then, would look as follows: the monkey is aware of the leopard and that it poses as danger to it, and intentionally took the action of climbing up a tree to get away from it (*ibid*., p 345).

I will demonstrate that behavioural ecology prefers and encourages the use of explanations that use lower-order intentional statements, whereas cognitive ethology would argue that if we were to give a full, accurate and useful explanations of how

animals behave, we need to use higher order intentional statements. I argue that these higher order statements are not merely different ways of explaining the same behaviour, but more accurate and more useful explanations of behaviour, particularly if we are seeing the same behaviour in very different species. This is because higher order explanations take intentionality and its influence on behaviour into account, which is excluded in lower order explanations. This same scale can also serve as an indicator of certain types of consciousness, as I will argue in section 5.3, as well as certain types of ethical value, as argued in chapter 4 and will be demonstrated in chapter 6.

Let us once again consider higher and lower order explanations of animal behaviour as Dennet sets them out, and apply them to an example taken from primatology, where a chimpanzee will console a second chimpanzee in its group, after the second chimpanzee lost a fight with a third individual. We often see this consoling behaviour in chimpanzees after a fight, where one not involved in the fight themselves will come over and put an arm around the loser (De Waal 2009: 34). A 0-order explanation of this particular behaviour would be something along the lines of: Subject A moves towards subject B, after subject B loses a fight with subject C. Subject A then continues to put his arm around subject B's shoulders. Putting this as a first-order explanation we could say: Subject A moves towards and puts his arm around subject B, *because* subject B lost a fight with subject C. To explain this in terms of second-order intentionality, we could say: Subject A moves towards and puts an arm around subject B because he *wants* to console subject B, who has just lost a fight with subject C. Going one step further, using a third-order intentional statement we could say: Subject A wants to console subject B who has just lost a fight with subject C, *recognising* that subject B *wants* consolation (Turner 2019:368).

The argument I am presenting here is that higher order intentional statements like the above provide more useful and true accounts of behaviour, particularly when we are trying to determine the causal basis of the particular behaviour. Of course it is possible to use a lower order explanation accurately by simply arguing that the behaviour is evolutionarily valuable, as a behavioural ecologist would do. We could argue that

comforting another individual is valuable, particularly for an animal that lives in social groups and is dependent on the rest of the group for its survival, so anything that encourages social cohesion would be promoted, and follow this by arguing that there is no strict logical necessity that the chimpanzee need know what he is doing or why he is doing it. Whether or not it is intentional is irrelevant to its evolutionary value (*ibid*., p.368). But taking into consideration everything we know about consciousness in animals, gleaned from evolutionary theory and studies on primates specifically here, it is highly likely that these actions are brought about through conscious intention and the chimpanzees' awareness of their own thoughts and feelings, and in this particular case the awareness of different thoughts or feelings in other individuals. Behaviourists argue that there are no scientifically sound ways to consider consciousness when explaining animal behaviour. But, as stated before, I argue that it is unsound scientific practice to ignore or reject consciousness as a foundation for seemingly intentional behaviour, particularly in complex animals. Even though we cannot confirm private conscious experiences in others, we can use the available evidence and come to reasonable conclusions about it.

5.2.3 Possible Objections from Behavioural Ecology

Given the downfalls of behavioural ecology, compared to the strengths presented by cognitive ethology, we can conclude that cognitive ethology can explain animal behaviour much more accurately than behavioural ecology can. That being said, behavioural ecologists might only argue that we cannot reasonably investigate claims about consciousness in animals, and not necessarily claim that animals have no consciousness whatsoever. While consciousness might be a real feature of behaviour, it is not a necessary one. But I argue that not only is behavioural ecology inferior to cognitive ethology in various ways, but by denying or ignoring the role consciousness has in initiating behaviour it fails in its main goal: to provide us with explanations of animal behaviour that are both accurate and useful. It particularly struggles to examine and explain the behaviour of more mentally complex animals. My argument will be fleshed out in threefold. One, by not referring to consciousness in its explanations, behavioural ecology "cannot make meaningful distinctions between the behaviour of vastly different

species, where these differences tell us important facts about that behaviour" (*ibid*., p. 368). Two, explaining behaviour by only focussing on the survival value of these actions, while either rejecting or ignoring the evolutionary value of intentional and conscious action, needlessly and unnecessarily narrows the scope of what behavioural ecology can explain accurately. And three, complex and flexible behaviours, such as deceiving and learning, are impossible to explain without making reference to consciousness (*ibid*., p. 368).

I begin with the first part of the argument. We can compare the actions of two different species, one that has no conscious awareness of its behaviour, and one very much conscious. We refer again to the nematode *C. Elegans*, who will eat on its own when it is safe, and together when there are dangers present. We could witness exactly the same behaviour in a group of primates, but they would be quite aware of their actions and have taken them consciously and intentionally. We could explain both species' behaviour quite easily using the same behaviouristic terminology, free from any reference to conscious intention. The difference is, knowing what we do about a nematode and its brain, we can make the very reasonable argument that it is not consciously aware and does not intentionally choose different responses to different environments. The chimpanzee on the other hand has intentionally decided to adopt different feeding strategies given changes in its environment. Strictly speaking, we could of course say that conscious awareness of the action is not a requirement for either species, both actions performed are valuable and serve the same purpose. However, considering what we know about nematodes and chimpanzees, particularly that chimpanzees have complex social lives and that the environments that they need to survive in require flexibility in their responses towards it, we can reasonably assume that they are consciously aware of their actions and take them intentionally. Both conscious awareness and intentionality together are needed to explain their behaviour fully and accurately. But because behavioural ecology does not take consciousness into consideration, it will struggle to create any useful distinctions between the same behaviour in very different animals, and so fail at providing accurate explanations for that behaviour (*ibid*., p. 368).

Second, behavioural ecology, just like cognitive ethology, aims at explaining the value of animal behaviour from the context of evolutionary science. Since it refuses consider consciousness in its explanations, "it narrows the scope of what types of behaviours it can explain, or at least the extent to which it can explain various behaviours. While it can explore and discuss the evolutionary value of certain behaviours, it cannot explore the related and important question of the evolutionary value of conscious, intentional behaviour, nor attribute causes to behaviour beyond claiming that they have survival value" (*ibid*., p.369). By either rejecting or ignoring consciousness as something that can influence behaviour, behavioural ecology limits itself to explaining behaviour in the most mechanistic terms. In this way it forces itself to "ignore the fact that consciousness can also arise as an adaptation, and that being able to act intentionally itself has evolutionary value" (*ibid*., p. 369).

Lastly then, we cannot explain certain behaviours accurately if we do not refer to consciousness, which is particularly the case when looking at primate behaviour. Take for example accounts of gorillas acting in deceptive ways (we will look at detailed accounts of primate deception in section 5.3.3). "To be able to deceive someone requires that one has an idea of what is happening in another's mind. An account of behaviour by a behavioural ecologist has no way of accounting for this fact, since it requires an intentionally conscious agent both doing the deceiving, and conceiving of others as individuals with thoughts different from their own as well" (*ibid*., p.369). This will be the same when we consider other situations such as learning in animals, or future planning, which we see regularly in the behaviour of primates as well as other animals. In these cases behavioural ecology only gives us simple observations of what animals are doing, rather than true explanations of why the behaviour came about.

Having demonstrated that cognitive ethology gives us more useful and more accurate explanations of animal behaviour, as well as demonstrating that behaviour is an accurate indicator of consciousness, we can now see how Dennett proposes we use an intentionality scale as methodology for cognitive ethology, and how these different levels of intentionality tie to different levels of consciousness.

5.3 Tying Intentionality to Consciousness

Having justified cognitive ethology as an accurate way of describing behaviour of animals, I will now tie Dennett's scale of intentionality to different types of consciousness. There will be a lot of overlap and distinctions might not be definitive in all cases, for example a certain behaviour might fall somewhere between a first and second-order explanation, or a first order explanation might indicate more than one aspect of consciousness, dependent on the particular animal and behaviour. But given the nature of consciousness itself, and the fact that different aspects of consciousness often go hand in hand, we cannot always easily draw these distinctions, nor should it be necessary. Attributing consciousness to certain behaviours is very much an abductive approach, where we make inference to the best explanation given the information at hand.

I will argue that Dennett's scale of intentionality can be used as an indicator of different aspects of consciousness, especially if we combine it with Griffin's scale of practical autonomy. Using both together makes the argument based on inference to the best explanation stronger, and should also serve as a counterbalance when we witness behaviour that seems intentional, but certain facts about the animal's nature and biology indicate to us that there is no true conscious intention behind the behaviour. Similarly, just because an animal fails a certain test or lacks a certain ability, which would seem to imply that it has very little practical autonomy, the way it intentionally interacts with the world might contradict this. This scale of intentionality and its ties to consciousness will be illustrated by looking at two cases, one of a species closely related to us, and one taxonomically very far removed. I will start then, with a justification of why focussing on intentionality, rather than specific abilities or characteristics, serves as the clearest indication of consciousness.

5.3.1 Justifying the Use of Intentionality

There are multiple reasons for a focus on intentionality rather than specific behaviours and abilities; particularly, intentionality allows us to describe behaviours and the accompanying consciousness across different species who live in the world in very different ways. Even an approach to animal ethics such as VanDeVeer's cognitive and psychological capacities approach, where the focus is very much on consciousness, struggles to account for animals that are very different from us biologically, or experience and engage with the world in very different ways or with different senses. They might not have any cognitive or psychological capacities that we can recognise, yet might still be very much conscious. Griffin's scale of practical autonomy does give us a nuanced account of what behaviour would serve as indicators of consciousness, and takes into account various factors; behaviour, biology etc. But combining this with Dennett's account is an extension, or a widening of what constitutes a conscious action that can include traditional indicators of consciousness, in that it goes further than Griffin's account. Ethical consideration is still based on consciousness, but by keeping the focus on intentionality, different types of behaviours from radically different animals to ourselves can be considered, rather than ending with the usual conclusion that animals with more capabilities and mental abilities are owed more ethical consideration. Or as VanDeVeer puts it, "They don't have syntax, we can eat them" (1979:532). While these qualities do rely on consciousness and serve as indicators of consciousness, it is not the capacities themselves that confer ethical status, but the underlying consciousness that makes them possible. So just because an individual does not show these capacities does not mean they are not conscious, or deserving of ethical consideration.

Consider something commonly used in studies on animal consciousness, the mirror self-recognition test, that chimpanzees regularly pass. Tests like these, used as an indication of self-awareness or self-consciousness, are very much based on certain senses and certain ways of existing in the world. Dogs for example, cannot recognise themselves in mirrors, although they learn to ignore them and can use them as a tool. This does not mean that they cannot recognise themselves, it might be that they engage with the world

and themselves differently, and might base their self-recognition on scent for example. Similarly elephants were thought to be unable to pass the mirror self-recognition test, but could use them to locate hidden food (Griffin 2001:274). This has since changed, where elephants have demonstrably reached for paint with their trunks and inspected the insides of their mouths with mirrors (De Waal 2016:235). Previous failures then, were not indicators of lack of self-awareness then, but might simply have been observed because of the size of elephants and lack of a mirror big enough, or not being familiarised enough with mirrors beforehand. And even on a failed attempt, elephants hear infrasound and experience the world in a very different way from us, perhaps mostly through hearing, and their self-recognition might also depend on this rather than sight. While dogs and until recently elephants, would fail the mirror-self recognition test, they might thus well show higher-order intentional behaviour and have the consciousness needed for that behaviour. Similarly not all primates pass the mirror test, and even certain individuals belonging to a species that regularly passes, also fail the test. Yet it seems unlikely that they do not possess the same self-recognition capacities as the rest of their species. Thus, while the mirror-self recognition test might be an accurate indicator of self-recognition, failing this test does not necessarily mean an individual is incapable of self-recognition and the conscious states required for it.

On the other hand, passing the mirror test is also not necessarily an indicator of self-awareness in every case, which again shows why an approach to intentionality might fare better. Consider recent evidence that cleaner wrasse, a type of small fish, which has also been habituated to mirrors, can on spotting a mark on themselves in that mirror, attempt to remove it by scraping its side against the wall (Kohda *et al* 2019:1). This could either mean that a wrasse is self-aware, which would go against most of what we currently understand about animal consciousness, or it would imply that passing the mirror test does not guarantee that the individual passing it is necessarily self-aware. We see again that things become very problematic when looking at species so taxonomically different from us, who live in the world in very different ways than we do. But whichever way this argument ends up going, we see problems with more traditional accounts of animal consciousness, self-consciousness in this particular case; either we are attributing to it far

too few species, or some of the traditional tests for it are not adequate or accurate. Again, an approach based on intentionality can get us beyond biological and neurological facts about a certain individual or species, as well as beyond whether or not that individual or species shows certain characteristics or can perform certain tasks.

To further justify an approach centred around intentionality, we can briefly look at a few other traditional key indicators of more complex forms of consciousness; the ability to use a language and tools, and to be able to learn and plan, and the ability to retain knowledge and imagine a future that accompanies it. The ability to use a language is one of the clearest ways to indicate consciousness, and perhaps conveniently is something only humans do, an argument that has been used since Descartes' time. He writes: "…none of our external actions can show anyone who examines them that our body is not just a self-moving machine but contains a soul with thoughts, with the exception of words…the reason that animals do not speak as we do is not that they lack the organs but that they have no thoughts" (1970:63-64). Of course, since his time primates have been taught and can use sign language, and parrots also use human language (though Descartes dismisses this), but the real question is whether or not the use of language is a reasonable way of attributing or denying consciousness in animals.

Again, throughout the thesis we have seen that it is highly plausible that animals are conscious, even though they cannot tell us about this directly, and this language test can be disregarded quite easily. Similarly, tool use also implies consciousness, it requires the ability to remember and to learn, to mentally represent and plan for the future, and definitely requires a more complex form of consciousness to enable it. But just because an animal cannot create and/or use tools, does not mean that they have only simpler or no forms of consciousness. Again, here intentionality might give us a more accurate account of the type of consciousness at play, rather than just focussing on a certain ability or mental capacity.

The ability to recognise oneself, or perform certain tasks, is very much tied to our own particular way of being conscious in our world. But while things like the ability to

recognise oneself in a mirror, use language or learn and use tools, are definitely indications of consciousness, they are not the only ones, and are very specific ways of interacting with the world. Intentionality, while accommodating all of these abilities, is also broader than these, and can account for and more accurately indicate consciousness, even in animals that live in the world in a completely different fashion than we do. Thus, the point here is that while all the above mentioned are definitely useful indicators of consciousness, a lack of them need not imply a lack of consciousness.

Furthermore, a focus on intentionality gives us a clear indication of mental representation, as the ability to have intentional thoughts about something out there in the world, to be directed towards the world. This is impossible without certain types of consciousness (e.g., access consciousness), or certain types of consciousness are impossible without mental representation, or more likely, they are different aspects of the same underlying mechanisms. We can again use Wise's example of orangutans, who can make tools for obtaining food (2002:183). They can hold an idea of the tool, its function, basic shape etc. in their minds for as long as it takes to make it or find it. Making tools would be impossible without mental representation, and the intentional thoughts that accompany these representations. We can also note here again that while tool use is a useful indicator of consciousness, it is not the behaviour itself, rather the underlying mental representation it requires, that indicates that an animal is conscious.

5.3.2 Tying Intent to Consciousness

Having demonstrated the suitability of an approach based on intentionality, we can now tie affective, phenomenal, access, and self-consciousness to Dennett's intentional descriptions of animal behaviour. Once this has been established, we can move on to applying this to animal behaviour, in one species very close to us taxonomically, and another very far removed. To set up a baseline to tie intentionality and consciousness, I refer again to our primatology example, where individuals will console one another after they have lost a fight.

We look at the first type of description then, a 0-order explanation where behaviour is described exactly as it happens, with no reference to any intentionality at all. There is not even a causal link established between the two events, and seems inappropriate even for useful descriptions for non-living things. However, if we take it to mean only that the subject is not aware of any cause, then this type of description would be most accurate for an individual or species that we can reasonably assume is not acting with any intent. While this explanation is not accurate for the above-mentioned example and chimpanzee species, it could be accurate for instinctual behaviours, or behaviours that we can, beyond a reasonable doubt, consider stimulus-response behaviours, like animals that Griffin would give a probability of conscious awareness (pA) score of less than 0.5. Recalling that this score indicates a species evolutionarily remote from us (though that doesn't matter for an intentional account), we can reasonably judge it to rely on mere stimulus response mechanisms, and by what we know about them biologically, judge they are unlikely to possess consciousness in any significant way.

Tying this type of intentional description to consciousness would be the most straightforward, since it indicates no consciousness at all. And this would be on a generous reading of 0-order intentionality, where mechanical cause and effect are assumed even if not clearly mentioned. However, we could even at this lowest order have Panksepp's affective consciousness present, though it is not ethically relevant in the sense I argue the other aspects of consciousness are. These animals seem to show no intentional behaviour towards themselves or the outside world, and don't seem to have any mental representation whatsoever.

It is important to note here already that any higher order explanation of animal behaviour can also be put as a lower order explanation and vice versa, as we will see in the example in the next paragraph. The trick is to determine which order explanation would be most accurate for the particular animal and behaviour we are talking about. As argued in the previous section, not only are behaviourist explanations that favour lower order explanations where not applicable inaccurate, they cannot offer proper explanations for complex behaviour. Similarly a higher order explanation can be given for something that

does not require consciousness, but again this would be inaccurate. What is of crucial importance here is considering the level of intentionality demonstrated in the behaviour and appropriately assigning the correct order explanation, using everything we know about the likelihood of an animal being conscious, combined with how it intentionally engages with the world.

A first-order intentional account then, from our original example, demonstrates a causal factor at play, it more closely ties the behaviour to events in the world that influence behaviour. A first order account is still very much an explanation of stimuli and responses, so again is inadequate for an animal such as a chimpanzee. In terms of how this type of intentionality would indicate conscious awareness, it fares no better than a zero-order account; there is no need for the animal to be aware of anything in either situation. While it might be accurate to make distinctions between zero and first order explanations when looking solely at intentionality, or scientifically to establish causal connections, with regards to consciousness neither require it. Consider something like an oyster closing itself when exposed to air and opening when underwater. A zero-order explanation may run as follows Subject A closes when exposed to air; and a first-order explanation would be: Being exposed to air causes subject A to close. These are different statements with different meanings, but with regards to underlying conscious motivation for these actions, there is no difference if we take *cause* here in a very mechanistic sense.

If we take cause to mean *because,* however, a slightly different picture emerges, and we can see the beginnings of access consciousness. We need to be careful here though, and again use all the information available to us about a certain species, its neurological structures and way of being in the world, to be able to reasonably make this distinction. Access consciousness is the availability of informational contents, or for our purposes a degree of mental representation which may or may not be accompanied by phenomenal consciousness (although I have argued in the previous chapter that phenomenal consciousness is the foundation for it, although a subject need not be aware of having this level of consciousness in every case). So while a first order explanation might refer to no consciousness or to basic access consciousness, we need to decide carefully if it is an

accurate description. If we can reasonably assume that an animal has some mental representation but not necessarily a feeling of what happens attached to it, a first order account might be more suitable (using cause to mean *because*). If we can reasonably assume the particular individual has some phenomenal feeling attached to the action, a second order explanation might be best.

A second-order intentional behaviour definitely implies phenomenal consciousness. Consider the above example again, where a subject A *wants* to console subject B. The individual is described as having thoughts or feelings, as well as being able to act on them, so there is definitely some degree of access consciousness implied as well, either carried over from our first order intentionality already (with each level including the types of consciousness of the level below) or becoming apparent only now. Again, this category might in some cases include some form of self-consciousness, if the individual is aware that it is them that wants something, but this might not be the case. We can use inference to the best explanation and determine whether or not a third-order explanation might not be more accurate.

A third order explanation then, seems to imply all the above-mentioned aspects of consciousness, as well as self-consciousness. Consider our example, where subject A moves towards subject B and puts an arm around them. Here subject A is *aware* of a mental state of subject B, he *knows* that subject B *feels* in need of consolation. This explanation acknowledges the intentional action of subject A, as well as subject A's awareness of subject B's mental state as well. And given what we know and can reasonably assume about the minds of chimpanzees, this seems the most accurate explanation of the behaviour. We can of course go on to give fourth and fifth level intentional accounts of behaviour, but the higher one goes the more unlikely it will be that animals have that level of intentionality. And for the purposes of an account of ethics based on consciousness, there is no need to go further.

5.3.3 Intentional Behaviour and Underlying Consciousness: Apes and Octopuses

Having demonstrated the use of intentionality, as well as tied it to different aspects of consciousness, we can now apply this to animals, and see how different levels of intentional action indicate consciousness. I will take two species, first chimpanzees who are closely tied to us taxonomically and generally considered highly conscious. They also demonstrate classic behaviours that usually indicate consciousness; they can pass a MSR test, use tools, and use rudimentary language. Secondly, I will take the example of an octopus, which is taxonomically very far removed from us, lives in the world in a very different way from us, and is biologically and neurologically a very different type of animal than we are. However, they also show remarkably complex behaviour and abilities; what appears to be a very intentional way of interacting with the world. This should again demonstrate how an intentional account of behaviour can be useful for indicating consciousness in animals vastly different from us.

We start then with chimpanzees. Primate behaviour supports the evolution of consciousness since they are related to us quite closely, from a genetic standpoint. We know that chimpanzees are genetically 98.7% identical to us, through the Human Genome Project and Chimpanzee Genome Project. We also share similar biological structures and mental abilities, even if not to the same degree (Antonites 2010:216). They can mentally represent, recognise themselves as themselves (and pass mirror self-recognition tests), and recognise differing thoughts and feelings in others as well, all indicators of various levels of consciousness.

We have already looked at one example, where chimpanzees are often seen consoling one another after they have been in a fight, even when the consoling chimpanzee had nothing to do with the original fight (De Waal 2009: 34). This behaviour could best be explained by a 2nd or 3rd order intentional explanation, which would best explain the behaviour based on what we know about chimpanzees. Considering that this behaviour demonstrates the capacity for recognising when a fight has happened in a group and recognising which members it involved, and using this information to base an action on,

it would indicate access consciousness. Combined with the ability to understand that others have different thoughts or feelings than they themselves do, which a third order explanation can account for, implies awareness not only of oneself but of other minds with thoughts and feelings separate from our own (which also implies phenomenal consciousness).

This ability to identify others as individuals with their own thoughts and feelings is demonstrated even more clearly in the ability that chimpanzees have to imitate, pretend and deceive. The ability to deceive is perhaps the most complex of these abilities, since "…deception hinges upon the recognition of regularities in another's response to one's deceptive behaviour" (Wise 2002:226), which means that it requires that an individual recognise and be aware of the fact that others think different thoughts, or have different knowledge than themselves. Consider the following case: a low-ranking chimpanzee (the knower) is made privy to where food is hidden, one high and one low value foodstuff, a banana and a cucumber. It is then allowed into the area where she has seen the food being hidden, along with another high ranking individual who does not know where the food is hidden (the guesser). The knower will lead the guesser over to the lower value food, a cucumber in this case, while carefully avoiding looking at the area where the banana is hidden, while the guesser will just as carefully monitor the gaze direction of the knower. Once the guesser has been led to and found the cucumber, the knower will quickly rush over to the hidden banana, and the unwritten rule between chimpanzees, that as soon as something is in your hand it is yours, no matter your social status, kicks in (De Waal 2016:130-131).

If we were to look at the level of intent we can reasonably assume is happening here, we see that the knower has knowledge of where food is and can use this knowledge to guide her actions (intentionally head over to where the food is hidden), displaying access consciousness. She also is phenomenally aware of her own body and where her gaze goes, when she intentionally does not look at where the banana is hidden. She understands that she has knowledge that the guesser does not possess, as well as that her actions (her gaze in this instance) can give the guesser knowledge, indicating a theory of

mind. The guesser in turn is aware of the knower as *knowing* something they do not. Based on the level of intentionality we see here, an accurate description of behaviour might be: Ape A intentionally deceives ape B, knowing that ape B does not have the same knowledge that ape A does, and furthermore knows that ape B will try to get the knowledge ape A possesses. This would rank even higher than a third order explanation, where the subject knows what another subject is thinking, but would constitute a fourth order explanation where subject A knows that subject B knows that subject A knows. All this combines to a strong case for capacities like mental representation and an awareness of self and of others with different thoughts and feeling in chimpanzees, and we can attribute self-access and phenomenal consciousness to them.

While chimpanzees are very closely related to us, octopuses fall on the complete other end of the spectrum. They are unlike primates in every way: they are invertebrates with no spines, and members of the Mollusca phylum, which include cuttlefish squid, snails and slugs. They diverged from a common ancestor with us half a billion years ago, and everything that they might have in common with us, such as eyes and a neurological substrate, developed independently and differently (Montgomery 2015:2). They are also solitary rather than social animals, their bodies are structured completely differently, they live only a few years, in a world so far removed from us that they seem completely alien to us.

Based on how far they are removed from us taxonomically, and with them belonging to the same class of animals as snails and slugs, which are not considered complex enough to be conscious, it seems that octopuses are an unlikely species to find consciousness in. They also do not respond to a mirror any differently as they do to other octopuses (Mather et al 2013:445), don't use language, and while they do manipulate objects, for example construct and modify shelters (Mather 1994:366), this could be seen as the same as a bird building a nest, or similarly when it uses shells as protective coverings, this could be seen as the same type of behaviour that a hermit crab would take, and not exactly tool use, depending on what we take tool use to mean.

Particularly the fact that they are not social animals undermines one of the strong views of how consciousness evolved; because of the need to be able to coordinate action and communicate in a species that needs cooperation to survive. But just as the octopus evolved eyes quite similar to ours but completely evolutionarily independently, perhaps consciousness of more or less the same type could evolve independently. Again we are reminded of Damasio's argument that one of the great benefits of consciousness is flexibility in a complex environment. In this case the complexity is not caused by a social environment, but rather based on an octopus needing to be able to prey on, and avoid predation, from a variety of different animals. But to justify attributing consciousness to its actions we can look at instances of octopus behaviour, and the level of intent involved in each, as it seems to very strongly infer conscious intent behind the action.

As first demonstration then, we can look at behaviour where octopuses were handed empty pill bottles, weighted down with sand, which they would handle, examine or cast away, what seems like basic exploratory behaviour around a new object. Some octopuses, however, would interact with the object in a different way. They have the organs to squirt water, which are designed and used for respiration and for movement, yet they would use them in a novel and seemingly purposeless way: they would use a jet of water to repeatedly send the bottle round and round the tank, or back and forth; or have the water flow of the filter send the bottle back to them, what seems to be the equivalent of bouncing a ball (Montgomery 2013:53). Repeatedly doing something for no apparent purpose is considered play, and is something normally attributed only to intelligent animals. If one were to describe this behaviour, a 0 or first order explanation simply does not adequately explain what is happening. A second order explanation, where the octopus *wants* to manipulate the object in a certain way, seems most accurate. Play would have the intent of amusing oneself, so here we can reasonably assume that there is a self to amuse, or some phenomenal awareness of itself. We also see access consciousness, not only in terms of using information and acting on that information, but in a creative and expressive way, not tied down by what the organ is traditionally used for, a type of flexibility in behaviour made possible through consciousness.

Secondly, octopuses have shown the ability to distinguish between people, even those wearing identical clothes. One person would regularly feed it, while another would consistently mildly poke it with a bristly stick. After a few days, the octopus would quirt water through its funnel or withdraw when the poker appears, but would draw nearer when the feeder appears (De Waal 2016:248). Again, the most reasonable explanation would be that the octopus recognises different people, memorising both from past experiences, and we might even go further in saying not only does she recognise people, she also knows their intentions towards her, which gets us quite close to a third order explanation, with the phenomenal consciousness tied to it. However, establishing that she is self-conscious, and knows that it is her who is trying to get away from or to a different person, is difficult to establish, particularly because of the way we usually establish self-consciousness; through self-recognition tasks (that octopuses fail) or social interaction (octopuses are solitary animals and cannibals to boot).

To continue our look at octopus behaviour, we can look at one final example. Octopuses seem to be able to conditionally discriminate, in an experiment where they were trained to find their way out of two near-identical mazes, with different escape routes. If they were then put into the mazes randomly, they could get directly out of the mazes using visual cues, without having to use trial and error to find the exits (Vittin 2013:396). Again, we see a high level of knowing demonstrated in their behaviour, and a high level of intelligence is usually accompanied by advanced forms of consciousness. We definitely observe access consciousness here, in the form of complex memories and the ability to access them, as well as small cues in the environment (in this case the nearly identical mazes) and acting on those.

While we do see clear demonstrations of intentional behaviour in octopuses, and can reasonably assume the consciousness that goes along with it, there remains a difficulty with explaining the behaviour of something so alien to us as an octopus. It might be that even intentionality does not seem to be completely adequate to explain its behaviour. The pressures that promoted consciousness in primates, particularly the need to be social and communicate, are not the same pressures that led to consciousness in octopuses, who are

very much solitary animals. In primates we also see a long developmental period where consciousness develops, but octopuses only live a few years. Even the scope of cognitive ethology, with its focus on kinship, cooperation and conflict, seems to exclude an animal as solitary as an octopus. Again this is why an approach based on intentionality can fare better, we can see intentional behaviour towards others yes, but we can also see intentional behaviour towards the environment and objects. Even so, it seems difficult to establish anything higher than a second-order intent for an octopus, no matter how intelligent their actions. This does not mean that they can't have self-consciousness, but rather that a large part of the way that we as humans conceive of self-consciousness is tied to interactions with others, or the ability to know that we are perceived by others. Thus it might seem unlikely to have developed in an unsocial animal, or at least it would look very different in an animal whose main relationship with other animals is as predator and prey. But the flexible behaviours they demonstrate, particularly the self-preserving ones, may very well indicate a sense of self that goes beyond phenomenal consciousness and towards a more complex conception of their own selves. This goes beyond the scope of the current thesis, but is worth considering when looking at animal consciousness so far removed from our own.

With these two illustrations then, we see that we can reasonably infer consciousness in animals, even from two very different and biologically distant animals such as chimpanzees and octopuses, vertebrates and invertebrates. With animals removed from us so far taxonomically, it becomes quite difficult in cases, but by focussing on intent rather than only on traditional abilities and qualities that constitute consciousness, we can begin to find accurate indications of their consciousness as well. And if we build on the argument from the previous chapter, that phenomenal consciousness is prior to and necessary for self- and access consciousness, then we can reasonably assume phenomenal consciousness even in a creature as different from us as an octopus.

Although one can consider that if consciousness in an octopus developed from different processes and for different reasons, there is no reason to automatically assume that its access consciousness needs to have phenomenal consciousness as a basis as well. But let

us consider if the argument would reasonably hold for a creature so different from us, particularly because of the ethical consideration based on phenomenal consciousness: that the ability to feel pain and pleasure is reliant on phenomenal consciousness. Given the abovementioned cases of octopus behaviour, it all points towards them being able to have these states. Consider the ability to distinguish between two people, one who causes it pain and another who doesn't. We see an aversion not only to pain here, which would be caused by the act of the bristly stick poking it, but an aversion to the person who creates that pain, even before the pain has happened. Therefore the pain must not only feel like something to the octopus, it can remember the pain and can *intentionally* seek to avoid it. Since this behaviour is not just a stimulus response mechanism, such as drawing away from the painful object, we can infer that there is something that it feels like for the octopus.

It might be more difficult to establish the ability to feel pleasure, which seems a bit more complex to identify in an animal that cannot express itself in many ways that we can understand, such as through facial expressions. However, the example of play is quite evident – animals play not for any useful or practical reason, but for amusement – a clear cut example of pleasure or enjoyment. It seems that the octopus would not show the behaviour if there wasn't some point to it, if it in fact wasn't getting some form of pleasure from it, or so it seems to us. We can consider that other highly repetitive behaviours are also sometimes indicators of stress in captive animals, such as pacing, head-bobbing, or excessive licking or grooming (Shonecker 2014:4). But using an abductive approach we can try to reasonably distinguish between behaviours like these stereotypic stress responses, and genuine play behaviour, and come to reasonable (if not absolute) conclusions. Neither could we know if that enjoyment was anything like the enjoyment of a primate, but it seems reasonable to suggest that it must have some phenomenal feel to it to do it in the first place.

5.4 Conclusion

By now, we have established that we can infer consciousness from behaviour, even in species vastly different from us, particularly by looking at the intentionality behind their actions. I have argued that cognitive ethology, and taking consciousness into account, offers the most reasonable and accurate way of describing animal behaviour. I have further argued that we can use intentionality scales, such as the one proposed by Dennett, to infer consciousness, and also that it is a superior approach to others such as behavioural ecology, particularly because it can account for consciousness in species very different from ourselves. They might not demonstrate behaviours and abilities that are traditionally indicators of consciousness, yet still might be highly conscious and demonstrate this through intentionally interacting with the world around them. I will now, in the next chapter, go on and use this method of establishing consciousness, along with the ethical consideration that should go along with it as previously argued in chapter 4, to look particularly at how this would resolve cases of direct conflict.

Chapter 6: Dealing with Direct Conflict

6.1 Introduction

Thus far, the following argument has been made: current approaches to animal ethics, while valuable particularly in solving cases of indirect conflict between humans and animals, are not equipped to deal with cases where humans and animals are in direct conflict with each other (chapter 2). Those that focus on consciousness as ethically relevant factor however, are superior since they can make distinctions between individuals even with many other things (level of interest in the conflict, sentience etc.) being equal (chapter 3). I have argued that consciousness is ethically relevant (chapter 4), and identifiable in the behaviour of animals, even if not directly reportable though language for example (chapter 5). The hypothesis developed in the preceding chapters is that we can ascribe consciousness to animals through their intentional behaviour rather than more traditional indicators such as tool use or language, both to those animals closely related to us and those that are very different to us. This consciousness has ethical relevance, and if we can determine the level of, or type of consciousness that each species in a direct conflict possesses, we can more effectively solve these conflicts than current accounts of animal ethics, such as those mentioned in chapter 2 can.

What this chapter will do then, is to test the above hypothesis against concrete cases of direct conflict between humans and animals, particularly in an African context. Here we often find cases of direct conflict between animals and humans, or cases where the promotion of animal welfare leads to the suffering of humans. While not a uniquely African problem, this mostly happens in places or among indigenous populations where people are directly dependent on their environment or the animals in it for survival; where the fencing off of an area to become a wildlife sanctuary takes resources away from the people living there, where the prevention of illegal trapping and bushmeat may mean that a critical food source has been taken away from communities, where a ban on animal trading or poaching means a loss of essential income, and so on. The particular case I will discuss is the case of the Amboseli region in Kenya, where elephants and

humans compete for the same resources, and elephants pose a direct threat to humans, particularly through crop destruction and creating a generally unsafe environment for people.

Firstly, I will demonstrate how other approaches, namely Singer's utilitarianism, Regan's deontology, VanDeVeer's cognitive and psychological capacities, Nussbaum's capacities and flourishing view, and even African relational approaches fail to offer viable solutions to this particular problem. Even an approach based purely on consciousness like Griffin and Wise's, and the abilities that are traditional indicators of consciousness, can be problematic if intentionality is not taken into account. Then I will apply my approach, using intentionality to attribute more specific aspects of consciousness to the animal in question. By keeping the focus on consciousness, it provides the strength of graded approaches, since we can distinguish between parties who are more or less conscious by not allocating one single ethically relevant characteristic to both, yet there is also inherent value attached to consciousness, so even if one party has less consciousness, this does not mean they can be disregarded entirely. I will then look at what ethical consideration the attributed type of consciousness confers on the individuals concerned, and what this approach would mean for the various attempts at solutions to this problem. Finally, I will conclude that an approach to animal ethics focussing on consciousness, specifically as indicated through intentionality, is superior to other approaches to animal ethics, and can offer reasonable solutions to cases of direct conflict between humans and animals where other approaches cannot.

6.2 Case Study: The Amboseli Elephants

We begin then, with a more or less straightforward case of direct conflict, in the case of elephants and people. Up until very recently (25 March 2021 to be specific) African elephants were considered a single species, but are now genetically distinguished as the African Forest Elephant and the African Savanna Elephant. They are respectively considered critically endangered and endangered on the most recent IUCN (International Union for Conservation of Nature) Red list. This Red list is considered the world's most

comprehensive inventory of the global conservation status of plant and animal species, and animals that make this list are at serious risk of extinction (iucn.org). For elephants, the main threats come from poaching and habitat destruction. And even though they are so endangered, one of the common means of controlling the damage they cause is through culling, in other words killing to keep down their numbers.

Elephants spend about 16 hours a day eating, and an adult bull can eat three hundred pounds of trees and grass, and drink fifty gallons of water a day (Bonner 1993:101). Because of this, elephants can destroy large sections of forests and woodland, and culling has been used largely in the past to prevent this. In the 1960s, elephants in Uganda were destroying woodlands and habitats, and two thousand were culled under the order of Idi Amin (*ibid*., p101-102). Because they completely destroy woodlands, they pose a risk to the environment and other animals dependent on these environments, and are considered a threat to the biodiversity of those ecosystems. While no doubt there are ethical concerns to be raised here, specifically tied to conservation, they do not represent direct conflict between animals and humans, and an approach based on consciousness like mine is not meant to solve these types of conflicts (though in the conclusion of this thesis I will see if it can throw light on these types of problems as well).

Unfortunately elephants do regularly come into direct conflict with humans, particularly in places where elephants and people are both reliant on the same resources such as areas of land, sources of water etc. In Rwanda in the 1970's 106 elephants were killed following government orders, because farmers were losing crops due to elephants trampling their fields. As human populations have increased, available land becomes less and less, and this problem has only increased over time. Elephants can take an entire harvest in one night (*ibid*., p. 101-102), and do not only destroy crops, but infrastructure as well. They destroy storage structures, break through fences, and break water pipes easily. Such large and 'destructive' animals can barely be kept out by expensive means such as electrical fences, which they will break through anyway should the voltage be low enough or the strands few enough (*ibid*., p 101).

Yet even these fallible means are not available to small scale or subsistence farmers; electrical fencing is both expensive and far from fool proof, and requires constant maintenance and full-time electricity. Some experts, like noted elephant researcher Cynthia Moss, argue that "(e)lephants and man cannot coexist where agriculture is practiced" (2000:54). Beyond destroying crops, elephants make watering holes unsafe for people, and there are regular tales of people being killed by elephants at watering holes or even around their homes. Considering that 80% of the African elephant's range lies outside of formally protected areas (Okello *et al*. 2014:463), this is not just a problem for people living near nature reserves and protected areas, or a problem that can be solved by keeping elephants inside their reserves.

The particular example I will be focussing on occurs in the Amboseli ecosystem in Kenya. Here elephants fall under appendix 1 under CITES. CITES is the Convention on International Trade in Endangered Species of Wild Fauna and Flora, an international agreement between governments with the aim of ensuring that international trade in these species do not threaten their survival, with 183 counties currently party to this convention (cites.org). Animals on appendix 1, such as the Amboseli elephants, are threatened with extinction and trade is generally forbidden. In Botswana, South Africa, Zimbabwe and Namibia elephants are better managed and they are listed under appendix 2, so some trade is allowed.

But despite dangerously shrinking populations and the treat of extinction looming for the Amboseli elephants, there are still enough of them to lead to serious conflict, particularly where agriculture is practiced. Here we find conflict between humans and elephants over space and other resources, with killing coming from both sides. In the semi-arid area of Amboseli, which gets its water primarily from a shrinking supply of melting snow and glacier cover from the Kilimanjaro mountain system, elephants and humans will face more and more problems as crucial resources dependent on water become fewer (Okello *et al*. 2014:474). Combined with a growing population and more and more natural areas needing to be converted for human use, as well as a changing climate and fewer resources

available, this leads to a problem that has only been growing worse over time, and will continue to do so if appropriate interventions are not taken.

Looking at this particular conflict, the threats that elephants pose to people are multiple: they raid and destroy crops, and they degrade the environment through their 'destructive' habits. Their presence also leads to general insecurity and safety concerns for people, as they destroy property, injure and kill livestock, and injure and kill people. Studies indicate that, from all the above mentioned, crop raiding is considered to have the most severe impact (*ibid*., p. 462). In 1996 alone there were 489 cases of damage caused by elephants in the area around the Amboseli Park.

On the other side, we have threats posed to the elephants through humans, both directly and indirectly: they face competition for critical resources, such as space, food and water, and their natural migration paths are blocked by human activity. More directly, they are harassed by people, for example when they are chased from fields or villages. They are poached for their ivory, and they are often subject to retaliatory killings for damage to persons and property (*ibid*., p. 462).

6.3 Current Approaches and their Answers

Having explained the problem, that of direct conflict between humans and elephants over food, water, other resources, let us consider if some of the current theories on animal ethics can offer reasonable solutions. We can roughly break down these approaches to 'all-or-nothing' ones, like utilitarian and deontological accounts, where you either have what is required for ethical consideration or you do not; and graded accounts for example those that consider cognitive and psychological capacities.

6.3.1 Utilitarianism

Recall that the utilitarian account, exemplified by Peter Singer, basically states that if an animal can feel pain and experience pleasure, it deserves ethical consideration. Every

animal deserves equal consideration, and not giving it to them constitutes an act of speciesism; an unjustified prejudice towards our own species (2009:15). Here we do not even need to go beyond very basic facts about elephants to establish that they are deserving of ethical consideration: they are mammals, they have a central nervous system, they can feel pain. Based on Singer's principle of equal consideration, elephants deserve the same amount of consideration as humans in this case.

There are many problems with a utilitarian account, and they have been dealt with in depth in Chapter 2, but here we can look at the main concern of this thesis, namely; that it offers no solutions to problems of direct conflict, like the Amboseli one. The elephants and the humans have just as much claim on resources, since suffering would result for both elephants and humans were their access to the resources taken away. If eliminating one of the parties (for example through the killing of elephants) were the only option to solve the conflict (for the point of argument here, there are many other alternatives of course), then, for a utilitarian considering only the amount of suffering in a given instance, it would not matter if it were humans or elephants who were killed in this way. Of course, killing anyone would be something a utilitarian would argue against, but the point is that the death of elephants or the death of people would carry the same ethical weight.

At its basis utilitarianism is about numbers, and a simplistic account might simply consider the number of humans compared to the number of elephants, and since all else is equal, whoever is in the majority gains right to the resources. This, however, doesn't tell us anything about how the situation is to be managed if one species has more claim to resources than the other, or how the animals should be treated beyond not causing unnecessary suffering. And even if we follow the majority rules principle, the peripheral interests of one group, if it is large enough, creates enough suffering to justify extreme suffering of a small group, if the sum total of suffering would be less. For example, even if people were only mildly inconvenienced by elephants, if enough people were inconvenienced, and few enough elephants needed to be killed to end the annoyance, killing them could be justified.

A more sophisticated version of utilitarianism, such as preference utilitarianism, can take other relevant qualities into consideration: their intelligence, their emotional capacity, or the ability of each to suffer in different and unique ways based on these other qualities. However, similar objections still arise. Firstly, the basis of preferences is still the ability to experience pain or pleasure, different preferences or interests simply indicate the ability to experience suffering to greater or lesser extent. In the main and at the core of its foundation, we are still left with a single scale of value, and the problems associated with it. Secondly, preferences or interests are impossible to measure objectively or scientifically, since we cannot know how another individual, particularly a different species, experiences pains, pleasures and interests. For example, how would an elephant's fear of a human compare to a human's fear of an elephant?

But again, Singer does acknowledge this limitation on the utilitarian account, which is more applicable to cases where conflict with animals is avoidable, or where peripheral and direct interests are in conflict. For example where becoming a vegetarian is an easy and manageable task, eating meat purely for its enjoyable taste should be avoided. Compared to someone who is reliant on bush meat as a matter of survival, the answers are nowhere near as straightforward. Utilitarianism offers clear solutions for cases where people have other options rather than causing animal suffering, but it struggles in cases of unavoidable conflict, because of this measuring problem. Similarly rule utilitarianism will struggle here, not only because it shares the same foundation than the others, but because rule utilitarianism's strength lies in general solutions meant for long-term utility, not special or particular cases, which is what direct conflicts are and what makes them so problematic in the first place. So while utilitarianism cannot tell us precisely what to do in the case of the Amboseli elephant situation, it can offer some guidance when it does come to thinking about possible scenarios to remedy the situation. The fact that the elephants can experience suffering should be a major consideration in which solutions we consider and how they are enacted: as painlessly as possible.

6.3.2 Deontology

Deontology, particularly Regan's application of it to animal ethics takes factors other than pain into consideration. Briefly repeated, he argues that any individual meeting the criteria of being a subject-of-a-life, has inherent value. We can see whether or not elephants meet the seven criteria required: they need to have beliefs and desires, secondly they need perception, memory, a sense of the future including their own, thirdly an emotional life together with feelings of pleasure or pain, fourthly preference and welfare interests, fifthly the ability to initiate actions in pursuit of their desires and goals, sixthly a psychophysical identity over time, and finally individual welfare, in the sense that life goes ill or well for them (2004:245).

We can briefly consider each criterion and how it applies to elephants, although most of this will be demonstrated in much more detail in section 6.4, through an analysis of their intentional behaviour and what we can reasonably argue this says about their conscious experience of the world. Firstly then, they have beliefs and desires, demonstrated quite simply through most of their actions; consider breaking through a fence to get to crops, we can reasonably assume they must desire what is on the other side of the fence, and believe that breaking the fence would be a means towards this. Secondly, perception and memory are demonstrated in many forms as well, for example elephants can recognise their family members, or different sounds, either made by other elephants or by other sources. Elephants can also remember and head to watering holes days away, even if they have not visited those particular places in years (De Waal 2016:205), indicating both memory of the past, and a future- and goal-orientated action.

Next consider whether they have an emotional life accompanied by the ability for pleasure and pain; the latter already established through utilitarian arguments, the former justified by a complex family life, where the death of one can disrupt the lives of the entire herd, or perhaps most simply demonstrated when families reunite after a short or a long time apart – there is a lot of excitement, trumpeting, entwining of trunks, bumping, sniffing and similar (Wise 2002:163). Preference and welfare interests tie quite closely to

the ability to experience pain and pleasure, which they demonstrably have, even to very complex degrees such as the pain and pleasure they derive from social interactions. The ability to initiate actions and pursue goals are again demonstrated by the fact that elephants undertake day-long journeys to a certain watering hole, or break down fences to get to a desirable food source.

Regarding a psychophysical identity over time, there are many indications that elephants have such an identity, but perhaps this is most easily demonstrated by the fact that they are also able to pass a mirror-self-recognition test. The final requirement, that of individual welfare in a sense that life goes well or ill for them, seems to be met easily as well; considering they can suffer, and through their intelligence and social nature, suffer and experience joy in complex ways.

If the above line of reasoning is correct then, elephants are subjects-of-a-life. Regan distinguishes between different subjects-of-a-life though, those that can be considered moral agents, and those that can be considered moral patients. In the Amboseli case then, elephants would be considered moral patients, and therefore not responsible for their actions (crop raiding, intimidation, killing of humans etc.). Humans on the other hand, are moral agents, and actions such as retaliatory killings, harassment, or general mistreatment of elephants are therefore morally reprehensible. Already then, in a case such as this, where direct conflict is unavoidable, a very important and necessary distinction has been made: only humans can be morally in the wrong, and only their actions can be regarded as morally reprehensible. This is an important consideration which will be discussed later on.

When it comes to offering a solution to this conflict then, Regan's deontological account runs into problems. If both elephants and humans are subjects-of-a-life, then they are both owed the same. However one party cannot be held responsible for its actions while the other can. Regan does recognise that this could be problematic in cases of direct conflict however, and offers up two solutions: the miniride and the worse-off principle. Briefly restated, the miniride principle states that where conflict is unavoidable, the

majority's rights override the minority, and the worse-off principle, where the majority's rights can be overrun if the minority would be comparatively much worse off, or suffer worse kinds of harm (Regan 2004:303-308).

Applying this distinction to the Amboseli case however, is extremely complex. If we were to use the miniride principle, how would this be measured? We could take the entire population of elephants vs. people in Kenya, but not all people and elephants are involved here. And if we take only those elephants that are raiding crops, and the farmers who are suffering under this, achieving a realistic number might be impossible, or the numbers might even be equal. And even if these numbers could be calculated, both options seem irrational. If there were more elephants, it would seem harsh to conclude that farmers need to accept this disruption to their lives. And if there were more people, it would also not seem just to imply that they could do whatever it takes to get rid of the problem.

We can also consider the worse-off principle: who would be worse off in such a situation? Some harms are worse than others, but deciding which of these are worse is not simple. Solutions like electrical fencing (which is not an infallible solution since elephants regularly break them down) cause elephants suffering in removing food sources and blocking migration routes, perhaps even blocking access to communally used waterholes. Killing of elephants also obviously causes different types of suffering, for the individual killed, and the group left behind that has to cope with the killing of a family member. On the human side, there is economic loss, general fear, and death as well. We see a variety of types of suffering on both sides, and weighing up these different types of harm and comparing one to the other is even more complex if not impossible. Consider this: does losing access to a watering hole cause more or less suffering than losing a harvest? A deontological account cannot give us answers to these types of questions. And while the worse-off principle does take into account that there are different types of suffering, and there are of course some we can easily compare (killing an elephant would obviously cause more suffering than chasing it away) it stands to reason that in a direct conflict, the issue that the conflict arises from is the same for both parties, in this case access to land, food, water and other resources. And both elephants and humans being

subjects-of-a-life, the way in which both parties can suffer will also be similar, seemingly making no one party worse-off than the other, and taking away any guide for action that the worse-off principle could have supplied.

Therefore both utilitarian and deontological approaches come down to the same problem, in that they confer ethical value in an all-or-nothing manner. This means that in cases of direct conflict, if both individuals (or groups in this case) have the same interests and the same quality deemed necessary for ethical consideration, there is no logical way to choose between the two in cases of direct conflict, all other things being equal. This is where an approach based on cognitive and psychological capacities seems superior.

6.3.3 Cognitive and Psychological Capacities

The cognitive and psychological capacities view, briefly restated, holds that peripheral interests should never override basic interests, taking as foundation the argument that animals should be treated ethically, and not be caused unnecessary suffering. In other words, no animal's basic interest, for example that of staying alive, should be overridden by someone else's peripheral interest, for example the pleasure of eating meat. But in the Amboseli case the interests are more or less the same ones for the elephants and humans respectively, both needing access to the same live-giving resources. When this happens, VanDeVeer brings in a second consideration, the Weighing Principle. He argues that humans can suffer in more ways than animals or suffer for longer because of enhanced cognitive and psychological capacities (1979:151-158). Therefore, when considering the Amboseli case, he would come to the perhaps more agreeable conclusion that human interests should override the elephants' here.

The most obvious difficulty presented by this view is that it has at its centre the argument that cognitive capacities such as intelligence are ethically relevant. While the argument for consciousness might come to similar conclusions than a view based on cognitive capacities, it is because intelligent behaviour is an indication of consciousness, which is the truly relevant factor, not that intelligence in itself is ethically relevant. But two other

interesting problems that emerge, particularly when applying it to this case study, is what constitutes superior intelligence or cognitive ability, and what constitutes a superior ability to suffer. Regarding the first, one can quite easily argue for human superiority, we can talk, create and use tools, form abstract concepts, a myriad of things that animals cannot do. But this constitutes a very specific type of intelligence; a human one. Animals that live in the world in very different ways than us cannot be compared in the same way, elephant intelligence might look very different from human intelligence, but it does not automatically follow that one type is superior to the other.

But even if this is the case, then it could come down to the fact that our advanced intellect, or our specific type of intellect, allows us to suffer more and in more ways than an elephant. While we can undoubtedly suffer more than many types of animals, in the case of elephants there might be reason to question this statement. Elephants form strong family bonds, and the death of a member of their herd is devastating for the others, as elephants are known to mourn similarly to us and some herds never recuperate after losing a matriarch. In Amboseli, when elephant mothers die, 70% of calves between ages two and five, and 50% of those aged five and ten, die in the two years after her death (Wise 2002:165). While there might be many factors at play, researchers say grief is one of the major barriers to their survival. Furthermore, we can make the argument that humans can rationalise and understand the death of another, which may be of some consolation to the individual, whereas it might precisely be the lack of 'intelligent' understanding of a death of a family member that can make the suffering so much worse for an elephant. So even though VanDeVeer's account provides some guidance in cases of direct conflict, it is by no means free from problems either.

6.3.4 Capacities and Flourishing

Nussbaum's account is perhaps the most problematic of all, or at least the most complex to apply, perhaps because it is so very comprehensive and nuanced. Very briefly summarised again, her account has a Kantian (deontological) element, where each individual has value in their own right, but also a focus on individual capacities which

will be different for different species, so no one specific capacity is valued above others as with the previous account. Rather, the capacity gains value if that particular capacity is necessary for a particular species to flourish (Nussbaum 2011:237). A strength of her view is that it manages to combine inherent value with species-specific capacities and therefore offers the possibility to make comparisons between different species, while not focusing on one single capacity like intelligence when making these comparisons.

Determining what would constitute a flourishing elephant life would take into consideration its species-specific capacities. Being highly intelligent and highly social, a flourishing life for an elephant would be one where it has the freedom to express these capacities. While this clearly supplies us with an ethical imperative not to hunt them for sport, or keep them in captivity, since this prohibits them from living an elephant-specific life of flourishing, it does not tell us what to do in cases of direct conflict. Every potential solution to the Amboseli problem violates some elephant-specific capacities. Killing elephants to keep down their numbers is very obviously ethically problematic, and even more so because elephants have such deep family ties. Killing even one disrupts the entire herd, and takes away their capacity to flourish as a social individual or group and creates an incredible amount of suffering and grief. Taking this into consideration would then lead to the conclusion that it is perhaps more ethically acceptable to take out entire herds at a time, or in plain language the kinder thing to do.

Similarly with other attempts at solving the problem, such as putting up fences, either to keep elephants in protected areas, or to keep them out of specific areas; it violates elephants' species-specific way of engaging with the world around them, limiting their access to certain resources, and blocking or controlling when and where they can migrate to when the need arises. Even some of the most humane solutions would not necessarily be ethical on Nussbaum's account. What is sometimes done to keep down elephant numbers where they are too destructive, is putting the animals on birth control. But even this seemingly harmless intervention might stop an elephant from flourishing given their close family ties and social nature; being able to have a family or at least be part of one big enough to constitute a natural herd might be essential to a flourishing elephant life.

6.3.5 African Relationalism

Briefly restated, African relationalism holds that individual entities get their ethical status not from any particular qualities or capacities they happen to possess. Rather, every animal should be considered ethically as it forms part of an entirety that includes humans, animals, and all other living and non-living entities that make up nature. Harming a part of this system harms every other part of that system. In a case of conflict such as that of the Amboseli elephants, an ethical solution would take into account humans, elephants, and even the environment that they find themselves in. Ideally then, in the abovementioned case, elephants would get ethical consideration from the fact that they are part of the whole, and any mistreatment to the part constitutes a mistreatment of the whole.

However, the situation is much more complex, particularly because other parts of the environment also fall under areas of ethical consideration. Considering how destructive elephants can be, what is at play here is not just humans and elephants. Rather things like woodlands and ecosystems are also deserving of ethical consideration, as are the animals dependent on them. Similarly farms that constitute people's livelihoods need to be considered. Going even further, Ukama encompasses the past and the future as well, so a decision needs to take future generations into consideration as well, those that will in future need to work on those farms and live in those environments. Also, while it does not necessarily follow that animals have no intrinsic value in themselves, or that African ethical thought regarding animals is necessarily anthropocentric (Etieyibo 2017:153), even if animals are considered inherently valuable this does not solve the problem of how to account for these many differing types of values, how much weight to give each. And while such an approach might be ideal in indirect conflicts, not being able to quantify what makes for ethical consideration, and thereby not being able to choose one party over another, makes direct conflicts near impossible to resolve objectively.

6.4 Consciousness through Intentionality

We then move on to a final approach, the one developed here, and very much centred around consciousness, but determined by the level of intentionality reasonably associated with the given animal and its actions. I will broadly consider two types of behaviour in elephants, the first having to do with problem solving ability and tool use, the second with more social and emotional behaviours. Both these types of behaviours can be explained through intentionality and serve as indicators of consciousness. Each kind of behaviour will then be analysed according to the different levels of intentionality we can reasonably attribute to these behaviours, and then the aspect or type of consciousness we can tie to it from there. Once this has been established, we can determine what ethical consideration would be owed them, and how this would translate into solutions to the Amboseli conflict.

It is quite important to note however, as with all behavioural studies on animals, anecdotes are not the same as evidence. For a long time, elephant research was not nearly as extensive as that on chimpanzees and dolphins, although it now seems elephants might be just as social and intelligent (and conscious) as they are. Being such large and dangerous animals, elephants are almost never seen in laboratories, nor have many extensive controlled studies been conducted on them. Consider, as mentioned in the previous chapter, that elephants were thought to be unable to pass the mirror self-recognition test, a standard indicator for self-consciousness. They have since demonstrated that they can pass the test (De Waal 2016:235), and previous failures could have been caused by a variety of factors, from mirrors being too small, to eyesight being generally bad in elephants, to the fact that they might recognise themselves much more easily through other senses. Generally the problem has been that doing studies on elephants is riddled with practical problems.

This difficulty of physically experimenting on elephants, combined with a lack of knowledge (which is now being made up for) about how they understand and engage with the world around them, has led to less research done on elephants, compared to

other highly intelligent animals. However, a few recent experiments are quite illuminating, and seem to indicate a high level of intelligent behaviour, tool use, and flexibility in responses to problems. It is also prudent to note that most controlled experiments done on elephants are done on the Asian elephant, not the African one. Given the Asian elephant's less temperamental nature, they are easier and safer to work with, but researchers such as Moss argue that African and Asian elephants appear so similar mentally that one could comfortably apply cognition results from one to the other (Wise 2002:167). Therefore all the following arguments should be relevant and transferable to our Amboseli case as well, all things being equal.

We will look at two main types of behaviour then, to establish whether or not elephants are conscious and to what degree. Firstly I will look at those behaviours that have to do with complex thinking, problem solving and tool use – classic indicators of consciousness by themselves already – but our focus will be on the intentionality demonstrated through these abilities. Secondly, we will look at complex social behaviours, since these indicate higher-order intentional states, and more complex forms of consciousness as well, perhaps even self-consciousness in the form of awareness of other's mental states as well.

6.4.1 Elephant Behaviour- Cognitive Tasks

Firstly then, we begin with a study in the National Zoo in Washington DC. In the experiment, food was strung up in the enclosure, just out of reach of the elephant and its grasping trunk. While it took a few days to figure out, the elephant eventually took a large plastic cube that was in its enclosure, moved it below the out-of-reach food, interacting with it in a way he had never done before. He then continued to climb on top of it with his two front legs, giving himself enough height, and could reach and eat the dangling fruit. After discovering this trick, he would do the same with a tractor tire and other objects, and even stacked several boxes to extend his reach (Jabr 2014).

What makes this study particularly interesting is that in a very similar previous test, the elephants could not master tools to reach the desired food. This originally seemed to indicate that the task was too complex for their abilities or that their behaviour was not flexible enough for it. Originally, they were given a stick as the obvious tool to reach fruit hanging above them, but they never used the stick to get the fruit down (De Waal 2016:15). But an essential feature of elephants was not taken into consideration: elephants are highly dependent on their sense of smell, and while they can use their trunk as dexterously as we would a hand, picking up a stick effectively blocks their sense of smell and the information it provides about the location of the food. Again, this demonstrates the importance of a focus on intentionality rather than on certain characteristics like tool use to determine if the individual is conscious or not – just because animals do not demonstrate a certain behaviour does not mean that they do not have the underlying consciousness that usually accompanies that ability, as argued for often in the previous chapters.

If we were to analyse this behaviour according to orders of intentionality, a zero- or first-order explanation fails to tell us anything about the animal performing the task, merely that given the particular experiment, it will elicit a particular behaviour from the elephant. While a zero- or first-order explanation could well prove useful for simpler behaviour, the explanation would have to include everything the elephants are doing, from noticing the fruit, trying to reach them, finding an object, moving it towards a certain place and using it in a certain way. Even if we wanted to explain this behaviour in mechanistic terms, it is just far too complex to be reasonably explicated in this way.

A second-order intentional action would involve the elephant having beliefs and desires, or *wanting* something. We can see that in this case the elephant wants the food, and will try to do something to get to it. This very clearly indicates phenomenal consciousness, or we can reasonably assume that there is something it is like for the elephant to *want* the fruit, since phenomenal consciousness, and awareness of thought or desires drives action so successfully. These might not be self-conscious thoughts, in the sense that the elephant is thinking "*I* am too short, *I* need to be taller" (though they very well might be), but we

can very reasonably say there is some belief about extra height being necessary, and this belief guides behaviour. We also see access consciousness, the ability to have thoughts about the world, and to be able to act on those thoughts, taking input from the world and responding to it, here in flexible and novel ways. Using tools is also an indication of mental representation, they need to be able to keep an idea of what they want to do (reach something higher up) in their heads while they find an object that is suitable for that goal. And small as the timeframe may be in these experiments, they also indicate memory and future planning: once the action has been performed it can be repeated and modified depending on what materials are at hand, such as the elephant switching out the plastic cube for a tractor tire.

In another experiment, elephants were separated from food, and the only way to retrieve it successfully was if two elephants pulled at two different edges of the same rope, in that way pulling the food closer to them (Plotnik *et al* 2011:5116). If an elephant pulled on the rope before another one held the other side, they would simply pull the rope loose and the food would be inaccessible. In this experiment, the elephants figured out the mechanism and learnt to wait for a partner, and would not pull the rope until another elephant had the rope grasped and ready to help pull in the food. Not only this, but different elephants also took on different strategies. One of the younger elephants chose to place one of their feet on the rope, thereby letting the other elephant do all the pulling work, but still successfully get the food to both of them (*ibid*., p. 5116). This difference in strategy for achieving the same goal seems to demonstrate mental flexibility in problem-solving situations. Flexibility like this cannot just be explained away in behaviourist terms; while perhaps in the first-mentioned experiment some could still try to argue for a default stimulus-response mechanism ‘in case of high food find any object that could give me height’. But in this case, waiting for another, keeping the rope still either by standing on it or pulling your share, simply cannot be explained in terms of mechanistic responses; there must be some conscious thinking going on to explain this type of behaviour as well as the flexibility in responses demonstrated by various elephants.

Again in this case, a zero or first order explanation is just too simple to explain such complex behaviour accurately; as the elephants are figuring out how to work the apparatus, that they need to wait for another elephant, that that elephant has to perform a certain action too before it can get started in order to complete the task successfully; it cannot reasonably or usefully be explained in such a mechanistic way. A second order explanation again seems most appropriate, that the elephant has a phenomenal self that *wants* something, it has certain desires (in this case reaching the food) and certain beliefs about how to go about getting the food (in this case, a quite complex set of beliefs about how to get the food closer, and about what it needs to do, when it needs to do it, and what another individual needs to do at the same time). Here we see phenomenal consciousness at play, in that we can reasonably assume that the elephant *wants* something, and it is precisely because this want feels like something (is phenomenally experienced) that makes it so useful and successful at guiding behaviour. It also demonstrates access consciousness: to be able to use a complex tool such as this requires the ability to mentally represent. They need to keep an image of the mechanism in their minds, as well as use goal-orientated reasoning to discover how it is to be used and that another elephant will be required to successfully use it. Basic affective mechanistic responses would be of no use here, rather we are seeing fully fledged access consciousness, in the ability to respond in various and flexible ways to input from the environment and other individuals.

Furthermore, the elephant who waits for a partner before pulling the rope, must also be able to anticipate, to at least some degree, what the other can and will do, and have some idea or belief about the second elephant's abilities. It is possible that the first elephant views the second as a type of tool that works a certain way, and it needs to wait for certain things (such as the rope in the other elephants' trunk) before it is operational and useful to it. This would be a behaviourist account, and seems both unlikely and does not give a useful explanation as to how the behaviour comes about. What is much more likely, is that the first elephant knows that the second individual has a mind of its own and can take actions of its own volition, and that they both have the same goal in mind and must work together to achieve it.

What we are then seeing is conscious cooperation, indicating knowledge of others with minds of their own, making a third-order explanation seem quite reasonable. Knowing that someone else knows something is a strong indicator of self-consciousness, in fact, knowing the mind of someone else as different from your own requires a self in the first place. This sort of behaviour is also consistent with strategic thinking and coordination often discussed in game theory- which while not directly dealing with consciousness, assumes rational individuals, thinking strategically and considering individuals other than themselves as rational strategic individuals as well. It indicates knowing what another individual is knowing. What this final study seems to indicate through cooperation is exactly self-consciousness then, should we find the second explanation of their behaviour (that they recognise the other as having their own thoughts or feelings) more convincing. Continuing and looking at elephant behaviour in a social setting, we can find even more behaviour that seems to require higher orders of intentionality for adequate explanations, and indicate even more complex types of consciousness.

6.4.2 Elephant Behaviour-Social Interaction

When it comes to social relationships and social behaviour in elephants, these can and should be observed in the wild, since the captive environment is unnatural, and does not allow for natural social relations like a herd of related elephants in the wild would. "Elephant families are large emotional knots. Females may die without ever having been alone. They move, eat and sleep together, usually in close proximity, often touching. They care for each other's children and present a common defence. At danger, the family will bunch into a defensive circle or semicircle, adults facing out" (Wise 2002:161). When applying intentional explanations to elephant social behaviour, it might be easier to focus on one or two specific examples. I will look firstly at consolation (quite rare in the animal kingdom), where one individual physically comforts another after a distressing event. Secondly, I will look at the hard-to-explain behaviour elephants have towards death, particularly death of their own kind.

Firstly, consolation: In behaviourist circles it is often called ‘third party affiliation’, defined as “directed physical contact with a distressed individual” (Plotnik & De Waal 2014:2), precisely to avoid any conscious intention behind these types of acts. However, as argued in the previous chapter, such complex behaviours cannot reasonably be explained in such mechanistic terms and it seems much more reasonable to consider that elephants are conscious, and this consciousness guides their behaviour. Consolation is quite rare, otherwise demonstrated empirically only for the great apes, canines and certain corvids, and this is probably because of the potential cognitive underpinnings of this kind of behaviour (*ibid*., p. 2).

In this particular study, elephants were observed during distressing events, such as when the group is forced to separate, or a conflict between some members of the group takes place. An individual elephant, called the victim, would show signs of distress, measured by specific changes in how they held their bodies, or certain vocalisations such as rumbling and trumpeting. This distress was also mimicked by others in the group, with measures put in place to make sure that the bystanders were reacting to the first elephants’ distress, rather than to the original stimulus (*ibid*., p. 2). This already seems to indicate some form of empathy, but beyond that we also see unsolicited consolation after a fright. Elephants will use their trunks to touch the face and mouth of others unrequested, or make chirping vocalisations (*ibid*., p. 12).

Behaviours such as consolation, and other similar behaviours we see in elephants like targeted helping, take the needs of others into account. Targeted helping is seen in cases where a sick or injured relative cannot stand on their own, and other elephants will coordinate and keep them upright (*ibid*., p. 2). This type of perspective-taking, seeing the world through the eyes of another, seems a clear indication of self-consciousness So when it comes to giving an intentional account of this behaviour, a third-order or higher account seems most reasonable, and some form of self-consciousness tied to it. In the case of targeted helping, the helper elephants need to be able to anticipate the needs of another that is different from their own needs at the moment; when a sick relative cannot stand on its own a helper elephant is able to take the perspective of the sick one, and

consider what the *other* needs in the given situation. The same thing happens with consolation and requires a third order intentional explanation; it involves having beliefs about beliefs, in this case the beliefs or desires of another elephant. Elephant A wants to console elephant B, believing that elephant B is in need of, or *wants*, consolation. This level of intentionality, combined with the fact that elephants can pass mirror self-recognition test, seem to clearly indicate self-consciousness.

We also see here strong indications of phenomenal consciousness. The ability to console rests on something akin to empathy, or a what-it-is-likeness to be another individual, and this is impossible without phenomenal consciousness. Any individual who can form a concept, however vague, of what something is like for another individual, must be able to experience what things are *like* on its own as well. Consolation relies on a feeling in the individual doing the consoling, that is a copy of the feeling in the individual needing consolation. We see this in primates in the form of mirror neurons, where the same neurons that fire when an individual does something, also fire when the individual observes another taking the same actions (Carter 2010:232). While they have yet to be confirmed in elephants, we see that there are direct ties between empathy for others and those same feelings in the individual who is doing the consoling. Phenomenal consciousness thus not only seems likely, but an absolute requirement for any type of consolation or empathetic behaviour.

A final demonstration, and perhaps one of the most fascinating aspects of elephant behaviour, is how they respond to death. While elephant graveyards seem to be more of a myth than anything else, elephants do respond to death in very surprising ways. When they encounter elephant bones and tusks, in "tense silence, they may sniff, taste, caress and hold them (the bones and tusks), run their trunks into every crevice of the skull, move bones, or carry them away. They may bury a body with branches, palm fronds they break off, ground vegetation, or dirt. They have been known to pass ivory and bones one to another around the herd" (Wise 2002:170). Some will even return for years to the spot where a relative died, to touch and inspect the relics (De Waal 2019:43). This example is particularly difficult to analyse. It is a very complex behaviour that seems to offer no

straightforward evolutionary benefit, in other words it has no life-serving function. Intelligence and social behaviour are very advantageous to elephants, just as consciousness in general is very useful to the continuation of life of the one possessing it. But this attitude towards death seems to go beyond this.

Perhaps just like in humans, things that are quite naturally beneficial take on meaning beyond their basic survival value. Consider the human feeling of love; belonging to a group is essential to the survival of a species as social as us, but the feeling goes beyond what is simply useful and takes on more meaning and value beyond basic biology. Perhaps something similar happens with elephants and death; there is no particular evolutionary benefit to treating death in the manner they do, but because they are so consciously aware of themselves and others, and because they form such close bonds with one another, death might have taken on *some* meaning for them.

Explaining this in terms of intentionality is no easy feat. The behaviour is not goal-directed in a regular sense, there is seemingly no intention (as in utility) behind the action. It might be similar in this respect to play, although play can be tied to survival value, for example preparing lion cubs for real fighting. That being said, in general and among older animals it seems that they engage in play purely for enjoyment. Elephant babies often play, and bigger juveniles will drop to their knees to play with younger ones, they will clamber over one another, throw sticks, chase one another or unsuspecting baboons or wildebeest (Wise 2022: 174-175). Adult females will also mock-change and play-trumpet, and in general play is regarded as something that highly conscious animals engage in, just like our octopus from the previous chapter. So we might find some similarity in play and how they react to death, both being activities that have no immediate or direct life-serving function, but are performed just for the sake of itself. But the similarities seem to end there.

Perhaps there is some sense to be made of elephant behaviour towards death, but what seems difficult to accept is firstly, to explain that the elephant *recognises* that the skulls or tusks belong to another elephant (perhaps even a specific elephant that they knew),

since they do not respond to other animal remains, unless they happened to have killed the animal in question (*ibid*., p. 170). Secondly, they know that this elephant is no longer with them (we need not say that they have a specific idea of life or death, but there must be some understanding that the individual is no longer there and can no longer interact with them or the world). Finally, there must be some feeling, desire or emotion (interest, sadness) that makes them interact with the bones in such a way. In simpler terms, they can recognise and have beliefs about the remains of elephants, and a desire to interact with them, but what precisely those beliefs are, and what types of desires or emotions they create are up for debate. But it seems hard to deny that they have some concept of death, and feelings attached to that concept.

6.5 Implications for the Ethical Treatment of Elephants

We can then with surety or confidence say that elephants are highly conscious, and exhibit behaviours that indicate phenomenal, access and self-consciousness. We cannot know that this self-consciousness is similar to ours, as they might know themselves through different senses, or their concept of self may be one that is closely tied to the social group, which might again look different for males, who do not spend their entire lives with a herd like the females do. But nonetheless, it is a sense of self that knows itself as separate from other individuals, as an agent in the world. What this then means for the treatment of elephants, will be dependent on the ethical consideration derived from each type of consciousness. In this section I will briefly restate the ethical relevance of each aspect of consciousness, and then explore the implications this would have for the different solutions proposed to the Amboseli situation.

6.5.1 Ethical Consideration Derived from Consciousness

We begin by reflecting on phenomenal consciousness, being the type of consciousness that allows us to experience pain and pleasure, allows us to have things going well for us or going badly for us. Secondly, following Siewert's argument, phenomenal consciousness opens up the possibility of non-phenomenal features of the world that we

find valuable, mostly that it enables us to *feel* pleasures, and is evolutionarily valuable in that it contributes to our continued existence. But even without these two benefits, we would still rather have it than not have it, so we consider it valuable in itself as well. Since phenomenal consciousness allows us to experience pain, the main goal this type of consciousness entitles an individual to, is the freedom from avoidable pain; in other words, we as moral agents should not cause pain towards any individual that is phenomenally conscious.

Next, let us consider access consciousness, the ability to represent information, and act on that information, which is probably almost always accompanied by phenomenal consciousness (which is an essential building block for access consciousness), even though the individual need not be phenomenally aware off access conscious states every single time. This again has been demonstrated in elephants when they perform second-order or higher intentional actions, such as using tools, where there is a need to mentally represent what they need for a given task and the ability to act on that representation. As I argue in chapter 4, access consciousness is not ethically relevant on its own, but since it is dependent on phenomenal consciousness, it confers the same ethical status as phenomenal consciousness. It is also more easily demonstrated in animal behaviour than phenomenal consciousness, and therefore we can attribute phenomenal consciousness as well as the ethical consideration it bestows every time we observe access consciousness even though it might not be possible for us to observe phenomenal consciousness directly.

Finally then, let us consider self-consciousness, the ability to recognise yourself as yourself, and recognise others as different from yourself. Self-consciousness can include a sense of the past and future, demonstrated through episodic memory and future planning. This is perhaps the most relevant feature for ethical consideration, and the one that is the determining factor when it comes to deciding between two parties in a direct conflict. This is also not a quality one either has or doesn't have, but rather an individual can be more or less self-conscious, which is where we can give one party preference in cases of unavoidable, unresolvable conflict. As demonstrated above, particularly through

third-order intentional actions, elephants have this type of consciousness as well. They can recognise themselves in a mirror and recognise others as well, as demonstrated through consolation behaviour. They demonstrate episodic memory and future planning as well, for example when heading out to a watering hole several days walk away, that they visited and remembered from years ago.

The value of self-consciousness lies in the fact that we value it in itself as well as the evolutionary benefits conferred by it. But perhaps most importantly, self-consciousness provides us with a *self* that can be treated ethically or unethically in the first place. This does not mean that individuals without a sense of self cannot be treated ethically or unethically, since they can still be phenomenally conscious and feel pain and pleasure, but given a direct conflict an individual, with a (sense of) self to be harmed would get preference over an individual without (such a sense of) a self. With elephants, there definitely is a self, an individual that can be harmed and would be consciously aware of that harm. Going further, elephants also have a sense of *others* being harmed, and this no doubt causes them suffering, for example when they help others who are sick, or when they seem to mourn the death of another.

What this means in general for our treatment of elephants, when it comes to cases of indirect conflict, is that we ethically cannot kill them for our own benefit, for example for their ivory, nor can we keep them in cages or circuses; they are conscious and with this comes the ethical imperative not to treat them in ways that can cause them conscious suffering. Our interest in using them for financial gain, or for our own entertainment, cannot override their interest in their own continued survival and freedom. Cases of indirect conflict are easily resolved with this approach, but similarly most approaches to animal ethics can solve cases of indirect conflict, following some variation of the idea that animals should not be harmed needlessly. But this rule struggles in cases of direct conflict precisely because harm to one party or the other is unavoidable, where my approach does not. Now we can apply this approach to the Amboseli case, and the various attempts at solutions to the problem that elephants pose to the community. We can see whether or not any of them can be considered ethically justifiable, and how an

approach based on consciousness and intentionality can offer solutions where other approaches to animal ethics cannot.

6.5.2 Which Solutions are Ethical?

Before diving into the solutions, it is important to note that while both sides in the Amboseli case are conscious and deserving of ethical consideration, there is one major difference: no matter how highly conscious elephants are, they will always remain moral patients, and not responsible for their own actions. We cannot reason with elephants like we would a person, or explain to them why they should do or not do certain things, or explain the consequences of their actions to them, for example that crop raiding will lead to retaliation. The responsibility rests solely on the human side of the conflict. And while we as humans might be more conscious, or self-conscious in particular, and when it comes to direct conflict have the ethical upper hand, so to say, in terms of agency it is also imperative for us to treat other conscious individuals as ethically as possible, and if harm is unavoidable, respect that consciousness and do the least amount of conscious suffering possible. This is the strength of the view I am proposing; it allows for gradations and hence makes choices possible in cases of direct conflict. Yet, each species that possesses phenomenal or self-consciousness also inherently has value, so this always needs to be taken into consideration as well. In any direct conflict, even though humans might be more conscious or have moral agency, this does not give us free reign to resolve the conflict in any way that we happen to see fit.

The first solution to elephants raiding crops, destroying property and woodland, and one that was regularly used in the past, is the killing[7] of troublesome or excess elephants. But elephants have such complex relationships, and are so close to each other, that killing a member or members of group causes a great deal of suffering to the surviving elephants (Tom 2002:79). Some elephant groups never recover from the death of a group member,

[7] The word culling might seem a less offensive term, but since it refers to population control, something like killing off a troublesome elephant would not be considered culling. Furthermore, all elephant culling involves killing, but not all killing is considered culling.

particularly if it is a matriarchal one that is killed. From a practical perspective, killing individuals of a herd leads to abnormal conditions like depression, unpredictable asocial behaviour, as well as higher levels of aggression (Kerley &Shrader 2007:181).

This seems a completely unacceptable way of solving conflict, knowing what we know about elephant self-consciousness; they can take the perspective of others, and seem to have some understanding or reverence towards death as well, and mourn when others die. This has to be the absolute last resort if we find consciousness even the slightest bit ethically relevant. And should this last resort have to be used, it should be done as humanely as possible, respecting their consciousness and the abilities it gives them to have a good or a bad life. If elephants do need to be killed, individuals should not be killed at random (or sometimes the 'weakest' individuals are killed to maintain a stronger genetic line), but considering what we know about elephants, it might be more ethical for entire herds to be killed together. This respects the fact that elephants will suffer more if individual members of herds are taken out, than they would suffer were the whole herd killed. But again, this should be the absolute last resort. Elephants are phenomenally conscious, and phenomenal consciousness has value in its own right, so it is always better for an individual to exist and be phenomenally aware, than it is not to be phenomenally conscious, or in this case, killed.

A milder alternative is fencing elephants out of places, and in this way protecting crops and infrastructure, and perhaps even water sources if a particular village is dependent on it for water. This causes minimal harm, though it might interfere with their natural migration paths. We can again consider how conscious an elephant is, and assume that it is not likely to be mentally anguished about not being able to go a certain way. Consciously, the elephant likely experiences no suffering beyond annoyance. Practically, however, we have already looked at various problems with physical barriers, such as the difficulty of maintaining electric fencing. But again, there might be ways around this, the use of solar power for instance being a workable solution to this problem. Ethically this is a perfectly acceptable solution, but from a practical point of view it generally does not solve the problem. If one farm is fenced off, chances are elephants will simply move to

the next unfenced farm. Electric fencing needs to be done well, and it needs to be done consistently, to be a viable solution to elephant raids.

Another quite ingenious solution that has been successfully implemented next to the Tsavo National Park in Kenya is beehive fences. Elephants are vulnerable to beestings around their trunks and eyes, and will flee with head-shaking movements when they encounter bees (De Waal 2016:240), so beehives around crops is an effective deterrent. The Elephants and Bees Project, by Dr Lucy King, consists of stringing beehives on fences around crops. When the fences between the hives are moved by elephants, this disturbs the bees and they in turn frighten away the raiding elephants. It also leads to additional income for communities from elephant-friendly honey (elephantsandbees.com).

There are of course some practical problems; it doesn't work everywhere, and it requires that bees occupy at least some of the hives. Most beekeepers in Africa do not have swarms at the ready to place in the hives; rather one has to wait for wild bees to inhabit the hives on their own time (Thomasy 2019). African bees are also quite aggressive and dangerous, and honey badgers can take a hive down easily as well, leading to the suggestion that artificially produced bee noises might be enough, and a more practical option to keep elephants out. Despite the problems with implementing these fences, ethically they seem like wonderful solutions. What makes them particularly appealing, and also so effective, is that they take into consideration what the world is like for an elephant, what they instinctively stay away from, and use this in a non-disruptive way that is quite natural to the elephant.

Another option that has been used successfully on a small scale in South Africa, is putting animals on birth control. Some methods, such as neutering males, or hormonal options, are no doubt stressful and traumatic and can have long term effects on group dynamics, so are best avoided. However, the immunocontraceptive used successfully in South Africa for years now is non-hormonal as well as reversible, and after a few initial doses only needs to be readministered once a year (Garai et al 2018:1). Elephants are

darted from a helicopter which is the least stressful or disruptive option, compared to being chased on land or being sedated to administer the contraception.

Whether birth control is an ethical solution depends on how it affects the conscious life of the elephants. No doubt the darting is traumatic, but it is quick and infrequent. It does, however, prevent mothers from having children, and in an animal where family ties are so important, this might disrupt group dynamics. We can question whether an elephant cow consciously suffers when she cannot have a child, and it does seem probable. Observations have been made of elephant mothers, who when they lose their own calves, will try to 'kidnap' the calf of another (Kerley 2007:182). Whether this would be the same for elephants who have never had a child remains to be seen, but it should be taken into consideration. Perhaps a solution would be to put only elephants who have already had a calf on contraception, which would still keep numbers down but have less of an impact on the herd and its structure. So despite the myriad of other practical difficulties, ethically this solution seems sound. And while there might be difficulty with implementation, what it could do to group dynamics, the logistics involved and keeping track of the animals, these are far less than what are involved with culling individuals, so should be preferable. This is also a long-term solution, compared to culling which instantly reduces numbers. But despite all the potential difficulties, recent evidence seems to indicate that this non-hormonal form of birth control is successful, and "no side effects on pathology, histology or elephant behaviour so far (has) been noted" (Garia et al 2018:2). So all things considered, it seems an ethical solution as it stands, though new information could always change this.

A final aspect I would like to explore, though it relates more generally to the elephant problem and not specifically to crop raiding, are conservation efforts. Generally, conservation efforts that take both animals and people into consideration, try to turn direct conflicts into non-direct ones. In other words, they try to create a benefit to the people through wildlife preservation, in this case the preservation of elephants. At its most basic it tries to argue that the species itself is valuable, and needs to be conserved for future generations. More specifically, it tries to create an interest for people to

preserve elephants, that they can gain some direct benefit from them. This is usually as monetary profit through tourism, but can take many different forms.

Many conservation efforts work to make people realise the benefit of wildlife, or have governments compensate people for when an elephant tramples their field, or make sure that the community profits from the meat and ivory when there is a cull. This effectively changes a direct conflict into a peripheral one, and makes conflict much easier to resolve. However, not all countries compensate people for losses due to wild animals, and people have in the past tried to take unfair benefit of systems such as these, claiming that animals have destroyed more than they have in reality (Bonner 1993:275). But despite potential problems, solutions such as these respect the ethical status conferred on both parties, human and elephant, and create an active interest for the preservation of elephants since there is a direct benefit for the people involved.

At the same time however, conservation is at other points at odds with an approach based on consciousness. What needs to be taken into consideration is the paradoxical situation where elephants are endangered, yet at the same time there are too many of them and populations need to be kept down. One of the reasons for this situation is that the world no longer has enough room for the same amount of elephants that it could previously house. There might be fewer elephants than ever before, but at the same time, there is even less land available to sustain their populations, less woodland, which in turn also needs to be preserved, and less of the animals that are dependent on these woodlands and ecosystems that elephants can destroy. The survival of the elephant as species, or the number of elephants, is of no concern to an elephant and means nothing to it. Consciously it does not suffer to know that its numbers are dropping, or that its species is threatened with extinction. And if we take the foundation for the ethical treatment of animals to be consciousness, things like the preservation of species do not seem important at all.

The preservation of a species is a peripheral interest of human beings (in that we can reasonably assume that elephants have no conscious interest in the continuation of their

species), and shouldn't override the direct interests of an elephant to live a life that goes well for it. And if there truly is not enough space for humans and elephants to coexist in their current numbers, humans are more conscious and should therefore be given preference. Obviously all other solutions should be tried first. It would be better for any living individual elephant to exist rather than not to exist, as the phenomenal feeling of consciousness is valuable in itself, and we attach value to self-consciousness as well, particularly in that it provides the individual with a (concept of) self, a thing that can be ethically harmed and therefore is deserving of ethical consideration. But if it were truly impossible to keep the number of elephants in the world as high as we would like them, and limiting numbers is the only way, a smaller elephant population, through the most ethical means possible, seems to be the reasonable solution.

6.6 Conclusion

In conclusion, I have demonstrated in this chapter that current approaches to animal ethics do not offer clear solutions to cases of direct conflict between humans and animals. All-or-nothing approaches, where you either have the qualities that make you deserving of equal consideration or you don't, can't make distinctions between parties when there is a direct unavoidable conflict. Graded approaches allow for this distinction, but the qualities they focus on are not ethically relevant, or not ethically relevant in the same way that consciousness is. What makes those qualities important however, as well as the qualities specified by all-or-nothing approaches, is the underlying consciousness they indicate.

An approach based on consciousness, particularly focussing on intentionality so as not to accidentally exclude any conscious animal that might not demonstrate a particular characteristic, such as language or tool use, allows for solutions where other theories cannot consistently provide them. Since a focus on consciousness combines an all-or-nothing approach (where being conscious definitively bestows ethical relevance) with a graded approach (since individuals can be more or less conscious) it allows distinctions to be made in cases of direct conflict, without disregarding the party who falls lower on

the consciousness scale. Finally, as demonstrated in the particular case of the Amboseli elephants, it can provide us with solutions, as well as insights into the acceptability of choosing between several solutions, and further our ability to mitigate animal human conflicts when they arise.

Chapter 7: Conclusion

7.1 Introduction

My approach to animal ethics then goes above and beyond what other accounts can do. It can provide solutions both towards indirect conflict, and most importantly, it can provide answers in cases of direct, unavoidable conflict as well. It serves to overcome prejudices towards certain species because of its focus on intentionality, and provides a new and more accurate account of animal consciousness through it, with all the ethical value tied to that consciousness. To complete this thesis, I will briefly summarise the argument I have made, demonstrate in detail the novelty and success of my approach, and finally discuss potential objections or shortcomings to such a view. Throughout, I will explore which future research avenues are opened up by this work.

7.2 Summary of the Argument

In summary, the following argument has been made: I have demonstrated how the question of solving direct conflict between humans has been a difficult one for current theories on animal ethics to answer, both for those approaches that argue for intrinsic ethically relevant qualities, and those that take a more graded approach. Generally animal ethics are developed to answer questions about the humane treatment of animals in conditions where alternatives are possible. For example, where people have the ability and availability of different sources of food, factory farming of animals is not necessary, and current approaches have straightforward solutions. However, cases of direct conflict happen when people and animals are forced into these conflicts without other options, such as where hunting animals illegally is a means of survival, or where allowing one species to live its life freely, such as the Amboseli elephants, causes direct human suffering. These are the types of problems that I answer in this thesis, and where my approach exceeds others.

In looking at consciousness as ethically valuable, both in its own right, and in that it allows for capacities that can also be considered ethically relevant, we find a foundation for ethical consideration. This, combined with my argument that we can clearly see that animals are conscious through the intentional behaviour they display, allows distinctions to be made between parties in a direct conflict, without disregarding one party completely. As demonstrated concretely in the Amboseli example, this allows us to make decisions and resolve direct conflicts soundly and ethically.

7.3 Strength and Novelty of the Approach

What makes my approach novel, and where its particular strengths lie, is the scope in which it can be applied, in that it can account for cases of indirect conflict, but also can supply solutions in cases of direct conflict, which other approaches cannot do. Firstly, in cases of indirect conflict, it clearly it states that if an animal is conscious, and we find that consciousness ethically relevant, then that individual is deserving of ethical consideration, no matter what species it is, what intellectual or social capacities it has etc. So, for example questions about whether or not we can ethically justify eating animals, keeping them in confinement or having them perform for our entertainment, are answered straightforwardly: They are conscious, and that consciousness is valuable in itself and demands ethical consideration. Our desire to eat them, to see them in circuses and such cannot override their conscious desire to be free from captivity, free from suffering or any other conscious desire they might have that is not in conflict with the same desire in humans. We cannot override direct interests of any conscious individual for the peripheral interests of another, no matter how many individuals have the peripheral interest, or how few the direct one. Though not covered in detail in this thesis, future research can delve into exactly how an approach based on consciousness can be useful towards indirect conflicts between humans and animals as well.

When it comes to cases of direct conflict, it also succeeds, particularly because consciousness happens along a continuum, it allows for variations in how much ethical status it can confer, which is essential for any case of direct conflict. Consider approaches

where you either have the quality that bestows ethical consideration or you do not, such as Singer or Regan's, where cases of direct conflict seem quite unresolvable. Both parties are weighted equally, and solutions, where possible, will have to come down to utilitarian logic and numbers. While most graded approaches are able to give preference to one party over the other, the qualities that they take into consideration are not ethically relevant in the same way consciousness is, for example intelligence. Just because one individual is smarter than another doesn't mean they are more deserving of ethical consideration. Based on this, we see that my approach gains its strength from the combination of a foundation of an intrinsically valuable quality, but one that can be present to a greater or lesser degree. It is precisely this that allows for it to make distinctions in cases of direct conflict, while at the same time not disregarding the party that has consciousness to a lesser degree.

This leads us to the second novel aspect of my approach, my argument that consciousness is more ethically relevant than other features classically considered for ethical consideration, such as the ability to feel pain, intelligence etc. While these might certainly be ethically valuable in their own right, they are made possible through consciousness, so I choose to focus on what allows for all these capacities, rather than the capacities themselves. Consciousness, particularly phenomenal consciousness is considered valuable in itself, as well as in that it allows for a variety of other things that we also consider valuable, such as the ability to feel pain, to act intelligently, in fact most of the features that other approaches consider ethically relevant. Consciousness is essential for all of them.

Finally, by focussing on intentionality as an indicator if this consciousness, rather than on specific qualities usually deemed necessary for consciousness, a final strength of my approach lies in that it avoids a type of speciesism or prejudice towards animals that are very different from us biologically or physiologically. We tend to draw arbitrary distinctions between pets and livestock, though they might have similar conscious awareness of themselves, feel pain in the same way, have similar relationships with others of their species etc. Similarly, animals that are considered cute or appealing in

some way get more consideration than others, hence projects for the protection of endangered animals such as pandas, but little awareness about endangered species of frogs, rodents, birds and other less 'popular' animals, many who live complex social lives and are demonstrably highly conscious. Octopuses still get cut up and cooked live, whereas mammals of similar consciousness or intelligence get more considerate treatment.

There is a tendency not to be able to think straight about animals, with irrelevant qualities swaying how we treat them. But an approach based on intentionality allows us to overcome these types of prejudices, sometimes expressed in the tendency to give more ethical consideration to animals that have the same capacities that humans do, such as being able to use tools, or communicate using a language. This can also come through being appealing to us, by being cute, or valuable for tourism, or any other ethically irrelevant factor. But by rather looking at the level of intentionality in their actions, and from there reasonably inferring how conscious they are, we can make judgements that are ethically sound, and based on factors that have true ethical relevance, even in, or perhaps particularly in, animals that are very different from us physically. This is an avenue with much potential for more research to be done. Using my approach, and further considering how intentionality ties to consciousness, and what constitutes intentional behaviour even when it looks very different from our own is a field that can still be expanded upon.

7.4 Possible Objections and Limitations

One objection that might be raised to my approach, similarly to many approaches such as Regan and Nussbaum's, is that it might seem to fall back to utilitarian logic in extreme conditions, as most theories on animal ethics are apt to do when facing direct conflict situations. However my approach in general manages to avoid this, and even if it could not, the foundation of it does not lie in utilitarian principles which avoids the critiques usually levelled at it. Considering our Amboseli example, what would happen were elephants seem roughly half as self-conscious as humans, but there are more than twice

the amount of elephants than humans? Would elephants then be given preference, and would this not fall back on utilitarian principles?

What prevents this from happening, and what makes my approach different from a utilitarian account even when pushed to these limits, is the ethical quality that is being considered. While both might come down to the numbers, the main concern is that with a utilitarian account those numbers are counting pain and pleasure, or in Regan's case subjects-of-a-life- each individual is weighted the same. These qualities in themselves are of course also ethically relevant, but it is the underlying consciousness that allows for them in the first place, it is consciousness that is truly ethically relevant as I have argued. Thus in cases where we need to measure one party against the other, we are not measuring singular qualities that might not be as ethically relevant as consciousness, rather we weigh conscious individuals who have differing levels of conscious awareness. And even if we find that we have to resort to numbers, it is an ethically relevant characteristic that forms the foundation, instead of non-relevant characteristics for example intelligence. And because consciousness confers intrinsic value as well as being something that can be more or less present, we can give preference to one party without negating the other party completely.

Following on this logic, Singer and Regan's approaches could also greatly be improved were they to present their ethically relevant qualities in a graded fashion; for example individuals could have more or less of a capacity to feel pain, or be more or less subjects-of-a-life. This would no doubt make their approaches more capable in cases of direct conflict. But again, as we have seen in chapter 4, in the case of pain asymbolia: in the absence of the ability to feel pain an individual mean that we consider them ethically less deserving, hence pain on its own cannot be a justifiable foundation for ethical consideration. For Regan on the other hand, his argument is deontological, that is to say dependent on intrinsic values. It is precisely this intrinsic value that makes sure that certain other animals have the same consideration as humans, so we cannot treat them as less ethically relevant simply because we are a different species. Again, this is a good foundation for indirect conflicts, but struggles with direct ones. But were Regan to allow

for gradations in his account, we have a similar argument to that of Nussbaum's, who also argues for intrinsic values, but allows that in case of direct conflict, such as using animals for experiments, we should use the 'less complex' animals. But characteristics such as complexity or intelligence are in themselves not good enough to place one individual above another ethically, a smarter individual is not somehow entitled to more ethical consideration than a less smart one, otherwise we could use this same basis to discriminate between members of our own species. My consciousness-based approach does not run into these problems, since consciousness is valuable both in being the foundation for what other approaches consider ethically valuable, as well being as intrinsically valuable as argued in chapter 4.

One can also note here that Regan's foundation for being a subject-of-a-life has some similarities with what my approach considers foundational, since what constitutes a subject-of-a-life is also dependent on different aspects of consciousness. This could raise the question of what precisely makes the account given in this thesis unique, or in what sense it is better than Regan's account. This can be countered on two main points, firstly that my account allows for gradations, as mentioned above, overcoming the problems of all-or-nothing approaches like Regan's. In this sense while there might be similarities in what constitutes the foundation of ethical consideration, the application of the approach is different. But more importantly, while the aspects that Regan looks at are no doubt important, he sets too high a standard for what confers ethical status, which may be informed by his interest in defining 'an animal rights view'. As I have demonstrated, even phenomenal consciousness, without more complex aspects tied to it, is ethically relevant. Just because an individual does not meet the criteria of being a subject-of-a-life doesn't mean has no ethical status and accordingly no ethical consideration should be accorded to it. Rather it is only in cases of direct conflict where these more complex aspects of consciousness, such as those a subjects-of-a-life possesses, might be considered more ethically relevant than other aspects.

There is also the potential weakness of my approach is that, in many cases, other approaches such as utilitarianism will offer the same solutions as the approach given

here. However, an approach based on consciousness has many benefits as already argued above, particularly in that it provides a more measurable, scientific basis for ethical consideration, and avoids the problems associated with sentience alone as foundation. Furthermore, the fact that different ethical approaches will offer the same solution in many cases is not problematic in this sense; different foundational arguments might lead to similar conclusions. Take for example the fact that both deontological and utilitarian approaches would consider something like harming another person as ethically wrong, but for very different reasons. While they might come to similar solutions, they are working from two very different foundations for ethical consideration. Therefore even though a utilitarian account might provide similar solutions than mine in the Amboseli case, this does not mean that the underlying utilitarian argument is justified.

As a final potential weakness of my approach, there is the question of how my account can solve cases of overlapping interests, for example where individuals need to be killed to prevent overpopulation, or when other types of values, such as biodiversity, or other types of non-conscious entities, like rivers or ecosystems, come into the equation. These are cases that have nothing to do with conflict, but rather cases where animal and human interests are seemingly aligned, for example in conservation efforts where animals need to be killed for the good of the species, or for preserving biodiversity, values that go beyond conscious individuals that can be harmed. For example, if we look at the Amboseli elephants again, they are often killed because they destroy woodlands, which wreaks havoc on biodiversity and has negative effects on various plants and animals that are dependent on those ecosystems. A river, a tree, the environment might also need to be considered ethically, but it cannot suffer in the same way a conscious individual can. Here we are faced with the question of how to weigh these things up against individual conscious elephants. Can an ecosystem be owed more ethical consideration than an individual? Or is the preservation of a species more important than the individuals making up that species? Obviously from the point of view of the individual elephant, it has no conscious concern whether its' species, other species, or ecosystems survive. While these things might eventually be harmful to the individual elephant, they do not cause conscious harm- humans may *want* to preserve an ecosystem, or *worry* about the

future of elephants, but an elephant has no such worry. This in particular makes choices difficult; taking action to preserve the species, through selective culling for example, does not reconcile easily with respecting individual consciousness.

There are many more similar cases we can consider, such as genetically modifying species to be able to withstand the impending climate change (Palmer 2016) or cloning northern white rhino (Pester 2021) to bring the species back into existence. Here even more factors beyond consciousness are taken into consideration, values such as wildness, naturalness etc. They are also important, but perhaps not as ethically relevant as consciousness. My approach, as well as any other that puts value on individual animals (as every one of the accounts we looked at do), can't answer these types of questions easily. But that does not mean it is powerless in these cases. It can give some guidelines towards how to treat the different individuals involved, by knowing about their level of consciousness we can know what would constitute cruel and kind behaviour towards them. If species are genetically modified, they could lead better lives in changing climates. This avoids individual conscious suffering, while at the same time preserving species. On the other hand, cloning a species back into existence offers no conscious benefit to anyone except those humans who would like to see them in the wild again. And it might even bring conscious suffering to the southern white rhino who are to play surrogate to their genetic relatives.

This would mean that following my approach, cloning a species back into existence would be considered unethical, as it does not offer any conscious benefit to members of that species. A similar argument is sometimes used in the justification of killing animals for meat; that cows might cease to exist if we stopped farming them for food. Again, it is not in the conscious interest of any individual cow for its species to continue existing. Farming them for meat definitely does conscious harm to them, whereas an end to factory farming, even if this means the end of domestic cows, does no similar harm at all. Of course, the continuation of a species might have far-reaching implications for many other things, beyond our interest in preserving a species, but based on these two considerations only (our interest in keeping an animal in existence, and the animals conscious interest in

not being harmed), both the case of cloning and meat production as means to preserve a species seem unethical. Using this type of arguing we might not be able to say definitively that a conscious individual is more or less ethically relevant than the conservation of a species, biodiversity or similar concepts, since we are dealing with very different types of values, but it can give us insights into how to treat individuals in cases like this. Rather than being a limiting factor then, this seems like another avenue for further research, and another outlet for application of my approach. Similarly, while beyond the scope of this thesis, animal-animal conflict, such as in the case of natural predation, can also be informed by considering the ethical relevance of the conscious individuals involved in these cases.

To summarise then, there do seem to be a few limitations to the application of my approach, such as the fallback to numbers when both parties seem similarly conscious, and the seemingly paradoxical situation where conservation is at odds with the preservation of individual animals. But none of these challenges are insurmountable. In fact, it can even offer valuable insights as to how to handle difficult cases, and open up avenues to future research.

7.5 Conclusion

To conclude, this thesis has demonstrated the following strengths: it can offer solutions to cases of general conflict between humans and animals, but most importantly it can go beyond what other accounts can do and give solutions towards direct, unavoidable conflict as well. It also serves to overcome certain prejudices towards certain species because of its focus on intentionality, and provides a new and more accurate account of animal consciousness through it, with all the ethical value tied to that consciousness. In these are also points where further research can be conducted, in new and different ways. Particularly because my approach is somewhat science-based, in that science can shed more and more light on the nature of consciousness in non-human animals, my approach will be guided by that research, and can keep on improving both in scope and accuracy as science progresses. And while this approach cannot provide definitive ways of choosing

between differing values, comparing consciousness to concepts such as wildness or biodiversity, it can give guidelines towards the treatment of animals in these cases. Therefore an approach to animal ethics, based on consciousness as ethically relevant factor, and demonstrated through intentional behaviour, offers superior answers to questions of both indirect, but particularly direct human-animal conflict.

Glossary of Selected Terms

Animal, human: While humans are also animals, for simplicity the term animal will mean any non-human animal, unless specifically stated.

Conflict: Any situation where the interests of one individual or group is in conflict with another individual or group. For the purposes of this thesis, can be either:

Indirect: Cases where conflict is avoidable, such as where a peripheral interest of one party is in conflict with a direct interest of another, such as a person's interest in entertainment in the form of a zoo, and an animal's interest in not being caged. These conflicts can be resolved without leaving either party significantly worse off than it was before.

Direct: Cases where conflict is unavoidable, such as where direct interests of both parties are in conflict, for example a person's interest in not starving where bushmeat is the only viable food source, and an animal's interest in its own continued existence. These conflicts cannot be resolved without one or the other party being significantly worse off than they were before.

Consciousness: Generally used to describe an individual as awake and aware of itself and its environment, but can be further broken down into:

Affective consciousness: The ability to be affected by internal or external stimuli, but with no awareness or phenomenal feel attached to it.

Phenomenal consciousness: The 'what-it-is-like-ness of experience, having something feel *like* something. The subjective character of experience.

Access consciousness: The availability of mental concepts for use in reasoning and for guiding action.

Self-consciousness: The ability to think reflexively about oneself, to recognise oneself *as* oneself.

Interests: Simply things that are good or bad for an individual, which does not necessarily require a conscious component, though it can. As in-something ‘being in your best interest’. This can be further broken down into:

Basic interests: Interests that are essential to the normal functioning of the individual, such as being alive and not suffering.

Peripheral interests: Any others not relating directly to the ability to function normally.

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