

GLOBAL JOURNAL OF ANIMAL LAW

A journal to promote human understanding of nonhumans' legal status

Volume 5, Issue 1, 2017 (September 5, 2017)

Special Issue Based on the “Talking Animals, Law and Philosophy” Talk Series Organised at the University of Cambridge

Publisher: Åbo Akademi University/Department of Law

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TALKING ANIMALS, LAW, PHILOSOPHY – AND BEYOND

by Raffael N Fasel*

1. Introduction

In his recent book, the primatologist Frans de Waal asks if we are “smart enough to know how smart animals are.”¹ He explains that the history of ethology is replete with examples of unsuccessful attempts to determine whether other animals possess features – self-awareness, language, culture, and so on – which we humans deem to be particularly valuable.

Self-awareness is a case in point. In one study, three elephants were tested on their ability to recognise themselves in mirrors. Primates, dolphins, and other animals generally believed to be “smart” had already passed the so-called “mirror test” that is often used as a benchmark for consciousness. In the mirror test, subjects are marked somewhere on their body, and then expected to investigate the mark on their own body rather than that of their mirror image. At first, none of the three elephants displayed the anticipated behaviour. As it turned out, the humans studying the elephants had used mirrors that were too small – and, on top of that, inaccessible to the pachyderms’ trunks.² Once the design of the experiment had been improved, one of the elephants successfully passed the test. The two other test subjects failed to inspect the marked parts of their bodies, but instead used the mirror to analyse other, non-marked parts.³ Can we conclude from this study that the first pachyderm is self-aware while his two fellow elephants are not?

For de Waal, the issue with the mirror test, as well as with similar tests which aim to identify human-like traits in animals, is that they are often insufficiently adapted to the unique natures of the beings under investigation. The mirror test, for instance, is based on visual self-recognition, which works well with human beings, for whom the sense of sight is essential.⁴ For animals that primarily use different

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¹ See Frans de Waal, *Are We Smart Enough to Know How Smart Animals Are?* (Granta 2016).

² *ibid* 17–18.

³ Michael D Breed and Janice Moore, *Animal Behavior* (2nd edn, Academic Press 2016) 188.

⁴ It is worth noting, however, that also some humans, such as for example infants under 18 months, fail the test, *ibid*.

senses than vision, on the other hand, the test is ill-suited. Dogs, for instance, rely largely on olfaction and hearing, and have thus far not been able to pass the test.⁵ For this reason, such tests are particularly prone to yield false negatives – thereby playing to existing prejudices about the inabilities of other animals. This is not to say that studying the cognition and behaviour of other animals is a futile endeavour. As de Waal points out, the key consists in “trying to understand [animals] on their own terms”, rather than on human terms.⁶

Tests like the mirror test usually say more about the unfeathered bipeds conducting them than about their animal “subjects”. In particular, these tests bespeak the human urge to determine which (if any) features make members of the human species special, and which (if any) features they share with other earthlings. This urge has become particularly prominent since an event we can refer to as the *grounding of humanity*. Humanity became grounded in a “merely” earthly existence with its inclusion in the Linnaean taxonomy and its subjection to the studies of other naturalists. These naturalists examined the human being as one among many animals, thereby effectively stripping it of the special ontological status many believed it to possess. The intellectual importance of this event – which is, in many ways, still ongoing – can hardly be overestimated. Long-standing claims about the superiority of human beings who, created in the image of God, were all supposed to be equally endowed with an immortal soul, seemed to be losing their appeal. With the almost exponential growth of knowledge about nature in the Enlightenment, it became increasingly difficult to defend the claim that humans were exceptional. The boundary between them and other animals was called into question from within, as naturalists were debating whether they should classify newly discovered tribes as human or non-human. And it was challenged from without, through the discovery of orang-utans and other primates which many suspected might belong to the human species.⁷

In the wake of these challenges, it was no longer enough to assert the superiority of humanity by invoking traditional or religious beliefs. Instead, with the critical spirit of Enlightenment, rational arguments were required to back up claims of human exceptionalism. Identifying the precise features of human nature that made humans (and only humans) special, however, proved difficult. The theory of

⁵ See eg Stanley Coren, ‘Does My Dog Recognize Himself in a Mirror?’ [2011] *Psychology Today* <<http://www.psychologytoday.com/blog/canine-corner/201107/does-my-dog-recognize-himself-in-mirror>> accessed 23 June 2017.

⁶ de Waal (n 1) 13.

⁷ See Justin EH Smith, *Nature, Human Nature, & Human Difference: Race in Early Modern Philosophy* (Princeton University Press 2015) 115–116.

evolution revealed that living beings differ in degree, but not in kind.⁸ As such, although human beings have some features which are particularly distinctive, there are almost always other species which possess these features to at least a lesser degree, and there are almost always some humans who do not possess the feature in the same way as their brethren. Reason is a good example. It is generally believed that what makes human beings special is their capacity to think and act rationally. The problem with this capacity, however, is that some animals (including other primates, dolphins, and elephants) also seem to have the ability to reason. This makes reason *overinclusive* as a criterion for “specialness”. At the same time, some human beings – as a result of congenital disabilities, advanced age, certain illnesses, or other impairments – are incapable of rational decision-making and acting. Hence, reason is also *underinclusive* as a relevant criterion. Other proposed features also have serious shortcomings. The advances in knowledge of the last 200 years have made it increasingly difficult to argue convincingly that human nature is wholly different from the “natures” of other living creatures.

Some, of course, do not seem to be impressed with this difficulty. But to avoid it, they must neglect what the most up-to-date science has to say about the capacities of other animals. Such thinkers often end up falling back upon pre-Darwinian theories of human essence, of *scala naturae*, or similarly outdated views. This is as indefensible intellectually as it is morally. It is one thing to have a questionable metaphysics: getting the *physics* wrong, as it were, is another thing altogether.

2. Talking Animals, Law and Philosophy

But as important as it is to have an informed descriptive account of the nature of human and other animals, this alone will not determine how animals are, or ought to be, treated – legally, morally, or otherwise. In order to be able to answer *these* questions, we need a firmer understanding of how philosophy and law approach animals. To do this, in turn, we should avoid framing philosophy and law as entirely separable disciplines. Philosophy, if unaided by more practical disciplines, runs the risk of being too abstract. Entangled in “trolley problems” and similar “intuition pumps”, it is in danger of missing out on the fundamentally practical nature of humans and other animals. Law, although it can be coarse, is much less susceptible to this problem. Embedded in social practices, it has its finger on the pulse of the respective

⁸ See eg Charles Darwin, *The Descent of Man, and Selection in Relation to Sex*, vol 1 (D Appleton 1871) 179: “the difference in mind between man and the higher animals, great as it is, is certainly one of degree and not of kind”.

society it governs. At the same time, however, this great practical strength of law is also its greatest intellectual weakness. With its focus on the concrete, it risks missing the forest for the trees. Here, philosophy can provide a remedy, infusing law with critical and argumentative depth. It can help equip law with the intellectual tools to go beyond the legal status quo and to reshape it according to societal or moral requirements.

Putting law and philosophy into dialogue is particularly important when it comes to the question of how we ought to treat animals. In these fields, and especially at their intersection, many fundamental questions are still largely unresolved. For example, is the role of law simply to mandate improved welfare for animals exploited by humans? Or do animals also require fundamental rights to protect their basic interests? If the latter, what are the grounds upon which animals should have such rights? And what rights should they have? Do animal rights “compete” with human rights? Are animals entitled to some sort of “political” status – for example, through some form of “citizenship” or other mechanism for community participation? Constructive exchange between disciplines will be essential to answering these questions. As Paul Waldau notes, in *Animal Studies*,

Both a great number and a wide variety of disciplines are needed if Animal Studies is to engage the past, present, and future possibilities of human interactions with living beings outside our own species. There is simply no other way to explore the diversity of other animals, respect the variety in human responses, and describe the peculiar dynamics of human animals.⁹

The *Talking Animals, Law and Philosophy* series, which was launched at the Faculty of Law in Cambridge in 2015, was set up with this purpose in mind. In the minds of its founders, law and legal science have remained relatively untouched by the animal turn that has changed the way other fields approach non-human animals. To the limited extent that law has turned its attention to the fate of animals, the way it treats them is all too often insufficiently informed by philosophy. At the same time, both law and philosophy are often poorly versed in other disciplines. The aim of *Talking Animals* is to help remedy this situation by providing an engaging and rigorous forum for debate and ideas for scholars and practitioners working at the intersection of law, philosophy, and the sciences. Since its inception, *Talking Animals* has hosted talks by speakers from fields as diverse as bioethics, environmental law, global

⁹ Paul Waldau, *Animal Studies: An Introduction* (Oxford University Press 2013) 21–22.

justice, democratic theory, and animal welfare law. A further year of exciting talks is in the pipeline as this edition goes to press.

3. Overview of this special issue

Papers from three of the series' talks are included in this special issue of the *Global Journal of Animal Law*. Despite the difference in approaches, the authors whose work appears here are each attempting, in their different ways, to spell out what humans and other animals are like and how they ought to be treated.

The capacity to suffer is a feature many will agree is shared by humans and countless other animals. But what exactly does it mean for an animal to suffer? Important legal consequences turn on whether or not an animal has suffered. Yet, judges and lawyers dealing with such cases often lack the information necessary to identify what exactly constitutes suffering in an animal. In his article "Suffering in non-human animals: Perspectives from animal welfare science and animal welfare law", Peter Fordyce provides a much-needed perspective on what it means for animals to suffer, what can cause such suffering, and how we can recognise suffering in animals. Shedding light on the ways in which key terms such as "sentience", "welfare", "suffering", "emotions", "feelings", "stress", and "distress" are used in the animal welfare science literature and in animal welfare protection legislation, Fordyce emphasises how a more careful use of these terms is likely to improve legal decision-making.

In his article, Fordyce defines suffering as "an unpleasant/aversive subjective mental state, caused by physical or psychological stressors that impinge on the animal in such a way that a failure to avoid (or adapt easily to) them threatens (or potentially threatens) its viability as an organism".¹⁰ This definition is expedient because it easily accommodates terms such as "pain", "fear" or "distress" which are often used in animal welfare protection legislation that does not directly talk of "suffering". More importantly, however, Fordyce's definition allows us to base our assessment of whether or not an animal has suffered on objective data rather than emotional reactions. In the past, determinations of whether an animal has suffered have largely been made on anthropomorphic grounds: the more an animal's reaction resembled a human's reaction to pain, the more likely we were to conclude that the animal has suffered. While such inferences may sometimes be corroborated by animal welfare science, its development over the last half

¹⁰ Peter Fordyce, 'Suffering in Non-Human Animals: Perspectives from Animal Welfare Science and Animal Welfare Law', *infra* 15.

century has provided us with data and methods of assessing animal suffering in a much more precise way. Sometimes, the scientific findings will contradict our anthropomorphic conclusions. A test from 1973 is a good example for this. As Fordyce explains, researchers found that intensively farmed chickens actually preferred to walk on a type of wire floor which an influential report had (from an anthropomorphic perspective) considered to be worse for their welfare. The preferences of animals such as the chickens in our example can be measured in so-called “preference/choice” tests. In these tests, animals are made to work to avoid something they do not want, or to get something they want. By measuring the effort they put into it, we can draw conclusions as to the strength of their preferences or aversions.

Today, a whole range of further well-proven scientific methods and parameters are used for assessing animals’ well-being. These include ethograms (that is, detailed descriptions of the characteristic behaviours of a species against which an individual animal’s reactions can be measured), biochemical and haematological parameters, hormone levels, heart and breathing rate, body temperature, and anatomical observations. But as Fordyce observes, even these objectively measurable parameters require interpretation. This is where experts in the field of animal welfare science come in. It is their role to interpret the data that is often produced as evidence in court to determine whether or not an animal has suffered. Fordyce points out, however, that courts should reassess the criteria by which they accept witnesses as ‘experts’. Even veterinary surgeons may not always possess the necessary expertise in animal welfare science in order to be able to correctly assess the available data. It is therefore often not the absence of such data but the lack of competent interpretation that will lead to a flawed assessment of an animal’s welfare. To round out his contribution, Fordyce adds a useful glossary to his article, in which he defines the most commonly used terms in animal welfare science.

Once one accepts that animals suffer and that we can detect their suffering, one must ask whether animals should possess fundamental rights and/or legal personhood as a means to protect them from such suffering. In their article “From Inside the Cage to Outside the Box: Natural Resources as a Platform for Nonhuman Animal Personhood in the U.S. and Australia”, Randall Abate and Jonathan Crowe focus on two particular jurisdictions – the U.S. and Australia – in order to consider legal avenues for going beyond the current property status of animals, to the establishment of animal legal personhood. Abate and Crowe begin their article by studying the recent attempts of the Nonhuman Rights Project (NhRP) to bring about the recognition of legal personhood for primates in the U.S. The NhRP files so called *habeas corpus* writs, where these writs are a common law tool which allows plaintiffs to demand that a judge verify the

legality of a person's captivity. Providing affidavits by renowned primatologists, the NhRP argues that chimpanzees should be considered "legal persons" for the purposes of the writ of *habeas corpus*. Abate and Crowe note, however, that the cases filed by the NhRP are yet to produce a positive legal outcome. At the time of writing, the New York Supreme Court Appellate Division had just affirmed an earlier decision by the County Supreme Court, which declined to have the chimpanzees in question transferred to a sanctuary.¹¹

Travelling across the Pacific, Abate and Crowe then shed light on possible pathways to achieving animal legal personhood in Australia. The article first explores the potential that Australian standing rules offer for raising animals' interests before the courts, noticing a positive (albeit fragile) trend towards a more liberal interpretation of the "special interest" requirement, which has made it easier for animal welfare organisations to obtain standing. Abate and Crowe then examine the prospect of invoking writs of *habeas corpus* in Australia. They consider this route difficult because Australian courts take a conservative approach to recognising detentions as illegitimate (including in the case of humans), as well as because the idea of animals as property is so deeply-entrenched in Australian law. Then the article considers whether the existing legal institution of guardianship is serviceable for furthering the interests of animals. The authors examine several ways in which human beings can act on behalf of animals to promote their interests.

In the final part of their article, Abate and Crowe discuss recent cases granting legal personhood to landforms and other natural formations, like rivers. Arguing that the moral and legal arguments in favour of animal legal personhood are stronger when considered in light of pre-existing recognitions of legal personhood, they propose that if such landforms are granted the status of legal persons then so, *a fortiori*, should sentient beings like animals. The article concludes by rejecting some of the common objections against animal legal personhood.

While these first two contributions highlight the importance of getting the science, the philosophy, and the law right, the third and final article explores the pragmatic challenge of building the political consensus that is required for action. In "The Boyd Group and Animal Experimentation: A Case Study of Deliberation", Robert Garner discusses the difficulties and prospects of getting to an agreement on

¹¹ In its ruling, the Appellate Division held that "[w]hile petitioner's avowed mission is certainly laudable, the according of any fundamental legal rights to animals, including entitlement to habeas relief, is an issue better suited to the legislative process." *Nonhuman Rights Project, Inc. v Lavery*, Supreme Court of the State of New York, Appellate Division, First Judicial Department (8 June 2017).

controversial cases, like those concerning animal experimentation. In his article, Garner uses the Boyd Group – a group consisting of stakeholders in the British animal testing debate, which was founded in 1992 to foster a dialogue on an issue that seemed to have reached an impasse – as a case study for the deliberative method. Garner examines whether deliberation in the Boyd Group has managed to reduce differences enough to achieve consensus on animal experimentation, as its formation was intended to do.

After introducing the central themes in the field of deliberative democracy, the article sheds closer light on the specifics of the Boyd Group and discusses, among other things, its participants, the relationship between these participants and the organizations they represent, and the Group's working method. Garner notes that there are several reasons – such as the fact that its members are partisan and represent the viewpoints of particular groups – why the Boyd Group cannot serve as an ideal testing case for deliberative theory. He observes however that the Group's operating principles are consistent with the theoretical framework of the deliberative method.

The case study reveals that there is little evidence that the Group's deliberations have induced any substantive change of views in its participants. However, progress has been achieved in how the participants regard each other and how they perceive the legitimacy of decisions taken by the Boyd Group. Furthermore, while consensus could not be reached on many issues, the participants did come to an agreement about using animals for testing cosmetics and household products; about the use of non-human primates for experiments; and about the role of local ethical review processes. Based on these findings, Garner concludes that the Boyd Group's deliberations have delivered results in at least some areas. What the study also shows, however, is that the Boyd Group has failed to reach a consensus on the core issue: whether animals should be used in experimentation at all. Ending on a hopeful note, the article points out that the Boyd Group is still active, and that – as such – it is always possible that it may reach a consensus on the fundamentals at some point in the future.

It seems safe to say that better interdisciplinary dialogues, as well as a deeper understanding of the natures of other animals are both prerequisites for agreement about issues like animal testing. If we seek justice for animals, we need to harness the insights, vocabularies, and ways of thinking of as wide a range of disciplines as possible.¹² This special issue of the GJAL aims to take a step in this direction. We hope that it can contribute at least to some degree to improving the lot of animals, countless numbers

¹² See Waldau (n 13) 9.

of whom still languish in unspeakable conditions. And even if some judge this goal too ambitious, we can still conclude, with Waldau, that the task would be worthwhile, if not for the good of animals, then at least to become aware of our own, human, limitations.¹³

¹³ See *ibid* 2.

SUFFERING IN NON-HUMAN ANIMALS:
Perspectives from Animal Welfare Science and Animal Welfare Law

by Peter Fordyce*

Abstract

The paper argues that suffering is an aversive/negative subjective mental state originally inferred in animals, by humans, using an anthropomorphic interpretation of an animal's situation, and the consequences of that situation on the animal's behaviour or physical state. Over the last half century, developments in the field of animal welfare science have provided a substantial body of data about what actually matters to animals, and how their responses to adverse events manifest, by examining their preferences, and measuring changes in their anatomy, physiology and behaviour over a range of states of welfare – from good to very poor welfare.

Data from animal welfare science can provide an objective reference point for data collected and used as evidence in criminal proceedings for un-necessary suffering. Animal welfare science can therefore assist the courts by providing objective criteria on which the premise of an argument regarding whether or not an animal has suffered can be assessed, rather than relying on conjectural opinion based on well meaning, but often uninformed, anthropomorphically driven emotions. Animals, like humans who are incapable of verbally communicating their mental state and preferences by virtue of age, or physical or mental infirmity, cannot verbally communicate whether they are enduring an aversive/negative subjective mental state. Animal welfare science provides an indirect, but rational and robust mechanism to infer what an animal's subjective state was/is in relation to what has happened to it, by examining scientific data relating to its physiology, pathology and behaviour, and considering this in the context of published animal welfare science data derived from animals in situations they are known to find aversive, and would choose not to endure. The paper explores some of the concepts and data on which animal welfare science is predicated, additionally examining difficulties that can arise with use of language in this field, and in animal welfare legislation.

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1. Introduction

Since the passage of Martin's Act in 1822 in the United Kingdom, non-human animals (henceforth referred to as animals) in the United Kingdom have enjoyed an ever widening and increasing degree of statutory protection of their welfare (Radford 2001). The 1822 Act used the concept of 'cruelty' (to wantonly and cruelly) to determine the guilt or innocence of a defendant in relation to their actions involving an animal protected under the Act. Some ninety years after this landmark Act, the 1911 Protection of Animals Act similarly included the terms 'cruelly' in the statute, but additionally included the term 'un-necessary suffering' in the legislation (Protection of Animals Act 1911). Following various amendments during the next ninety years, the 1911 Act was superseded by the Animal Welfare Act 2006 (AWA) in England and Wales (with similar, although not identical, legislation in the devolved jurisdictions of the UK). This Act dropped the term 'cruelly' from the statute, and in order to gain conviction under this Act under Section 4, the prosecution must demonstrate to the court that a protected animal (as defined in the Act) had suffered and that the suffering was 'un-necessary' (Section 4 Animal Welfare Act 2006). The change in the framing of the legislation in relation to what was commonly referred to as the 'offence of cruelty' in the previous Acts has practical significance in prosecutions. To obtain a conviction under Section 4 of the Act, the prosecution is required to prove that an animal suffered. Only once this has been established is the issue of whether the suffering was 'un-necessary' (or not) relevant to obtaining a conviction.

Unlike the term 'cruelty', which conflates issues of suffering and necessity, the above formulation of the offence reflects current thinking in animal welfare discourse, where suffering is a matter for science and evidence, while the issue of necessity is a matter of ethics, with this being dependent on the circumstance under which the suffering occurred (Broom 2004). The AWA 2006 provides guidelines relating to what a court might consider both 'acceptable' (or otherwise) in relation to activities involving animals (e.g. Section 5 specifies which mutilations are legally acceptable and when; Section 58 deals with regulated biomedical research; while Section 59 exempts fishing), as well as the issues a court might consider in relation to *necessity* in a case involving suffering. Section 4(3) sets out the following criteria for consideration in relation to necessity:

- (a) whether the suffering could reasonably have been avoided or reduced;
- (b) whether the conduct which caused the suffering was in compliance with any relevant enactment or any relevant provisions of a licence or code of practice issued under an enactment;

- (c) whether the conduct which caused the suffering was for a legitimate purpose, such as –
 - (i) the purpose of benefiting the animal, or
 - (ii) the purpose of protecting a person, property or another animal;
- (d) whether the suffering was proportionate to the purpose of the conduct concerned;
- (e) whether the conduct concerned was in all the circumstances that of a reasonably competent and humane person.¹

While the above guidance on necessity is relatively comprehensive, the Act provides limited guidance regarding how a court might interpret the term ‘*suffering*’. Section 62 of the Act simply states: ‘Suffering means physical or mental suffering and related expressions shall be construed accordingly’. As discussed above, for a prosecution to succeed, the first hurdle is to show the animal suffered, and success will turn on what the court accepts as evidence that an animal did indeed ‘suffer’. Hence, what that word means is critical to the success or failure of the case. Many prosecutions brought under Section 4 of the Act in England are conducted by the Royal Society for the Prevention of Cruelty to Animals (RSPCA), a charity founded shortly after the 1822 Act for that purpose, and whose prosecutorial activities continue alongside state prosecutors in the UK. This activity has recently been examined by the House of Commons Environment, Food and Rural Affairs Committee (House of Commons Environment, Food and Rural Affairs Committee 2016–2017). In an independent review of the prosecution activity of the RSPCA – a report commonly referred to as The Wooler Report –, Stephen Wooler examined problems faced by the RSPCA when prosecuting under Section 4 of the Act (Wooler 2014). Wooler discusses the difficulties caused by lack of a precise statutory definition of suffering in the Act, along with a lack of assistance provided by established case law in England and Wales. He further comments on the role of expert witnesses in obtaining convictions under the Act, along with the practical problems that may arise in court due to disagreements between veterinary surgeons on the meaning and nature of suffering in animals. One resulting recommendation to come from the report was the suggestion that the Royal College of Veterinary Surgeons (RCVS) (who regulate the veterinary profession in the UK under the Veterinary Surgeons Act 1966) be invited to take the lead, along with ‘other practitioners’, to develop a common standard or guidance on the approach to assessment of suffering. A recent paper by Baumgartner et al. (2016), which reviews the assessment of unnecessary

¹ Further guidance is also provided in a set of Explanatory Notes which state that they ‘do not form part of the Act and have not been endorsed by Parliament’, but have been produced ‘in order to assist the reader in understanding the Act’.

suffering in animals by veterinary experts in 42 ‘expert witness reports’ submitted to English courts, highlights the problems raised by Wooler. The paper demonstrates the prevalence of disputes between experts concerning the definition of suffering, the significance of clinical findings in relation to the animal(s) involved, and the relevance of different assessment methods used to assess suffering, and provided a range of definitions of suffering to exemplify the point. These definitions for suffering are reproduced in the glossary at the end of this article, along with others from other sources.

In this article, I argue that ‘suffering’ in animals (as with humans) is an unpleasant/aversive subjective mental state, caused by physical or psychological stressors that impinge on the animal in such a way that a failure to avoid (or adapt easily to) them threatens (or potentially threatens) its viability as an organism. I use the term ‘adapt’ in the context of Donald Broom’s definition of adaptation, that is, to describe ‘the use of regulatory systems, with their behavioural and physiological components, to allow an animal to cope with its environmental conditions’, with ‘coping’ defined as ‘having control of mental and bodily stability’ (Broom 2014). Like with humans who are unable to verbally communicate their feelings about their situation for reasons of age or mental debility, reasonable inferences may be made about the internal subjective state of animals on the basis of objective analysis of their situation. Such an approach includes an analysis of the situation they find themselves in, and scientific data relating to how they are responding to it, including behavioural changes, and changes in their physiology and anatomy. Since the passage of Martin’s Law, such inferences have almost always been based on anthropomorphic concerns arising from the situation the animal has found itself in, and how the animal reacted to that situation. However, developments in animal welfare science concerning the needs of animals, and an understanding of underlying motivational mechanisms to achieve these – along with data from measurement of physiological, pathological and behavioural parameters in animals in situations that have been shown to be aversive as a consequence of their motivation to avoid such situations – have provided objective criteria against which data from an animal that is the subject of proceedings for ‘un-necessary suffering’ can be compared. While requiring care in interpretation, such objective data can provide a scientific rationale on which to conclude whether or not an animal has suffered, rather than relying on a purely empathetic response to the animal’s situation. By considering suffering to be an aversive/negative subjective mental state, words used in animal welfare protection legislation such as ‘pain’ and ‘distress’ are easily accommodated under the term suffering as they are ‘unpleasant/aversive subjective mental states’, along with many other such unpleasant states not defined in Primary legislation but widely used in animal welfare science discourse, such as ‘fear’ and ‘hunger’. The wording of Section 62 of the AWA

2006 clearly allows for such a concept,² although I argue that all ‘suffering’ is mental, even if it may have ‘physical’ or ‘mental’ (psychological) causes. This article attempts to explore the concept of sentience as it relates to animal welfare science and animal welfare protection legislation, the link between objectively measurable criteria reported in animals involved in proceedings for ‘un-necessary’ suffering and their mental states, and highlight some of the potential problems arising from ambiguity in use of language in such cases. In order to try and avoid such confusions of ambiguity surrounding the terms from animal welfare science that are used in this article, I have included referenced definitions of how I have used the terms and have added a glossary at the end of the article containing definitions of the most commonly used terms.

2. The legal recognition of sentience in animals

While pre-dating Martin’s Act by three decades, Jeremy Bentham’s famous philosophical question regarding whether animals should be given moral consideration has clearly informed animal welfare protection legislation since 1822.³ The issue has however remained a topic for debate amongst a small number of philosophers such as Carruthers (Carruthers 1992) and Frey (Frey 2008), in part because of the difficulties of attributing subjective mental states to animals who, by virtue of their species, are unable to report their experiences verbally directly to humans (e.g. Mendl et al. 2009). The debate about accessing the subjective mental state of animals in many ways mirrors that of the problem of ‘solipsism’ in humans (e.g. Stanford Encyclopaedia of Philosophy 2014) and will not be laboured here as it has been discussed extensively elsewhere, e.g. Broom (2014), or more briefly by ‘Compassion in World Farming’ (2006), Mendl and Paul (2008) and Cartmill (2001). However, many legislatures now appear to concur with the modern utilitarian philosopher Peter Singer, who states that ‘the limit of sentience (using the term as a convenient, if not strictly accurate, shorthand for the capacity to suffer or experience enjoyment of happiness) is the only defensible boundary of concern for the interests of others’ (Singer 1979). Hence, a number of jurisdictions have in recent years conferred degrees of legal protection on animals on the basis of them being ‘sentient’, citing scientific evidence as the justification. Such jurisdictions include the European Union (Treaty of Lisbon 2009), New Zealand (Animal Welfare Amendment Act (No 2) 2015), Australia (Australian Government 2008) and Colombia (Contreras, C. 2016). Examples from EU

² ‘Suffering means physical or mental suffering and related expressions shall be construed accordingly’.

³ ‘The question is not can they reason? Nor, can they talk? But can they suffer?’ (Bentham 1789).

legislation which include this formulation include Directive 2010/63/EU on the Protection of Animals Used for Scientific Purposes where the introductory paragraph 6 states: ‘New scientific knowledge is available in respect of factors influencing animal welfare as well as the capacity of animals to sense and express pains suffering, distress and lasting harm’ (Directive 2010/63/EU). Another example is Regulation 2009/1099/EU on the Protection of Animals at the Time of Killing, where paragraph 19 states: ‘There is sufficient scientific evidence to demonstrate that vertebrate animals are sentient beings’.

While some may still think that animals are not sentient, this paper starts from the *de facto* position that they are, given the science on which the above mentioned legislation is based. However, if suffering is one of several internal subjective mental states associated with sentience, the questions arise: how might this be demonstrated in a court room in order to obtain a conviction for un-necessary suffering, and how might the clarity Wooler seeks on the issue of suffering be brought to court proceedings? In his recent review of the science surrounding sentience and animal welfare, Broom suggests that sentience involves ‘having the awareness and cognitive ability necessary to have feelings’ (Broom 2014). He then goes on to suggest that a sentient being will have a number of abilities, including: a) the ability to evaluate the actions of others in relation to itself, and third parties; b) to remember some of its own actions and their consequences; c) to assess risks and benefits; d) to have some feelings; and e) to have a degree of awareness (which Broom defines as ‘a state during which the concepts of environment, of self and of self in relation to the environment, result from complex analysis of sensory stimuli or constructs based on memory’). From Broom’s perspective, determination of whether sentience exists in a species of animal therefore depends on scientific observation of how that species behaves in a variety of situations to establish whether they exhibit those criteria. Similarly, scientific examination of a range of observable criteria in animals that are involved in court cases for unnecessary suffering can be used to determine whether they are enduring an ‘unpleasant/aversive subjective mental state’ by comparing such findings with those seen in animals in situations known to be aversive to them.

An understanding of concepts from animal welfare science such as homeostasis, motivational drivers, needs, and the link between feelings and emotions may be helpful in clarifying how measurable parameters relating to an individual animal are used to infer a subjective mental state, and this is discussed subsequently. However, a caveat is required at this point because of the potential for misunderstanding due to how language is used in both animal welfare science and legislation. Broom, in a paper examining animal welfare in the European Union, comments on the problem of inaccurate terminology used in some European Animal Welfare Protection Laws (AWPL), due to incorporation of outdated or inaccurate

concepts of animal welfare (Broom 2017). Like Wooler in the context of judicial interpretation of legislation, Broom argues for the importance of accurate use of terms and concepts from animal welfare science discourse within the legislative branch of government. Across animal welfare science literature, different authors may use the same term to mean slightly different things, or different words to mean the same thing. I would not wish to adjudicate on the ‘correctness’ of the use of terminology. However, for reasons of clarity of argument, I argue that there is much to be said for requiring those making legal arguments in expert reports, for example, to define and reference the terms they use, so the meaning is explicit in the context in which they are using them. As discussed above, I have tried to do this here, along with a glossary of terms used, at the end.

Sentience and welfare

The Treaty of Lisbon contains a provision on the *sentience* of animals, according to which Member States

shall, since animals are sentient beings, pay full regard to the welfare requirements of animals, while respecting the legislative or administrative provisions and customs of the Member States relating in particular to religious rites, cultural traditions and regional heritage (Treaty of Lisbon 2009).

However, the Treaty does not define the term ‘sentience’ in relation to animals, nor hint at its nature, the range or degree of its presence within different species. While not stated in Primary legislation, Australia’s 2008 Australian Animal Welfare Strategy does define a sentient animal as ‘one that has the capacity to have feelings and experience suffering and pleasure’, this formulation having obvious similarities with Singer’s view of sentience, Broom’s above mentioned view, and similarities with John Webster’s definition of a sentient animal as ‘one for whom its feelings matter’ (Webster 2006).

What ‘matters’ to animals is the imperative that has driven animal welfare science since at least the Brambell Report of 1965 in the UK (Brambell 1965), and the history of this is reviewed by Keeling et al. (2011). While there are many definitions of what ‘*animal welfare*’ is, most incorporate the view that welfare involves consideration of the animal’s subjective experience.⁴ Scientific assessment of an

⁴ Cf. e.g. Webster’s view that ‘good welfare is fit, feeling good’ (Webster 2005); Fraser et al.’s view that an animal’s welfare consists of three components, ‘Health (fitness), naturalness (Telos) and subjective experience (feelings)’ (Fraser et al. 1997); or Broom’s view, according to which welfare is ‘the state of an animal with regard to its ability to cope with its environment’ defining ‘coping’ as ‘having mental and bodily stability’ (Broom 2014).

animal's welfare therefore incorporates objective measurements of factors such as its physical health (with 'health' defined as 'the state of an animal with regard to its ability to cope with pathology' and 'pathology' defined as 'the detrimental derangement of molecules, cells and functions that occur in living organisms in response to injurious agents or deprivations' (Broom 2014)), observations about its behaviour in the circumstances it is in, and the physiological changes that are occurring within it as it attempts to cope with its situation. From these observations, deductions are then made about the animal's subjective state, that is, its feelings (Fraser et al.), whether or not it 'feels good' (Webster), and its 'mental stability' (Broom). Such a multifactorial assessment of welfare fits with the view of the World Organisation for Animal Health (OIE) according to which

[t]he scientific assessment of animal welfare involves diverse elements which need to be considered together, and that selecting and weighing these elements often involves value based assumptions which should be made as explicit as possible (World Organisation for Animal Health, Terrestrial Animal Health Code nd).

Establishing exactly what matters to animals is based in part on the assumption that animals are programmed by evolution and experience to be motivated to make choices that are in their own best interests (Fraser and Nicol 2011). As animals try and cope with challenges to their bodily and mental stability from threats to their viability as an organism from their environment, observable physical changes occur in the behaviour and physiology in animals in situations. If they find difficulty in making these changes (or cannot make them), pathological changes occur in their physiology, anatomy and behaviours. This is perhaps most explicitly expressed by Jean Decety (2011) in a paper discussing the evolution of empathy in humans, who suggests that

the human social brain, as well as all other mammalian brains, is fundamentally built on ancient emotional and motivational value systems that generate affective states as indicators of potential fitness trajectories (Decety 2011).⁵

Motivation to instigate or change behaviours is driven by the animal's interaction with its environment, such interactions causing motivational changes in the brain to bring about behavioural

⁵ Motivation has been defined by Broom as 'the process in the brain controlling which behaviours and physiological changes occur, and when' (Broom 2014), and affective states refer to 'a wide range of pleasant and unpleasant (subjective mental states' (Verbeek and Lee 2014).

changes that are in the best interest of the animal (either by acquiring something they need or want, or avoiding something that is a threat to their best interests), as a result of the generation of ‘affective states’ in the brain. It is therefore perhaps useful to briefly examine the science behind motivational research in animals, and its origins in the Brambell Report.

3. What really matters to animals – Motivational research and ethograms

The Brambell Report of 1965 came about due to societal concern raised about the change to modern ‘factory’ farming methods in the UK in the late 1950’s and the impact on the welfare/quality of life of animals used in such practices. This is exemplified by the assertion in Ruth Harrison’s 1964 book *Animal Machines* that ‘[t]he greatest condemnation of intensive animal rearing is that the animals do not live before they die, they only exist’ (Harrison 1964). William Thorpe, in an appendix to the 1965 Brambell Report that examined the assessment of pain and distress in animals, suggested that ‘[t]he reactions of animals to the kind of stimuli that cause pain or fear in ourselves are very often but not always similar to our own, so we immediately have a sympathetic feeling for the animal’ (Thorpe 1965).

Such ‘sympathetic feelings for the animal’ under the circumstances that Thorpe describes above have undoubtedly been the driver for much AWPL across many jurisdictions, setting limits on the harm animals must endure in different husbandry systems. For example, within the UK, the Agriculture (Miscellaneous Provisions) ACT 1968 was a direct outcome of the Brambell Report, with its legal principle behind statutory ‘Codes of Recommendations for Welfare’ (of various farm species) later being incorporated into the AWA 2006 (Sections 14–17). Other examples within the European context might include the raft of directives and regulations to provide protection for animals across a range of usages and species such as regulations concerning the husbandry of animals kept for farming purposes (98/58/EC), for scientific purposes (EU/2010/63) or zoological purposes (EU/1999/22), along with requirements for how they may be transported (EU/2005/1) or killed (EU/2009/1099), with many similar examples of legislation protecting different utilities of animals across the world. It does not seem unreasonable to suggest that Thorpe’s concept of ‘sympathetic feeling for the animal’ was also the basis on which many convictions for ‘cruelty’ or ‘un-necessary suffering’ were made in the past. That is, they were based upon ‘the reactions of animals to the kind of stimuli that cause pain or fear in ourselves’.

Such an anthropomorphic approach to reducing or avoiding suffering in animals is admirable (with anthropomorphism being defined as ‘the attribution of human characteristics (including the

projection of subjective states and feelings) to non-human entities' (Morton et al. 1990)) and has undoubtedly contributed massively to protecting animal welfare. However, as the UK's Farm Animal Welfare Committee (FAWC)⁶ discusses, over recent years there has been a shift from 'heuristic' approaches to the policy making in relation to animal welfare, (i.e. based on 'belief, anecdote, tradition and hearsay'), to one where animal welfare science has 'provided evidence for animal suffering, sentience and consciousness' (Farm Animal Welfare Committee 2014). Indeed, part of FAWC's remit is to provide such scientific evidence to the UK government on the subject of animal welfare to assist with policy making, mirroring similar functions in the EU's European Food Safety Agency (European Food Safety Agency nd). Such scientific evidence is often able to provide objective criteria about what animals actually want, or want to avoid, and data about the consequences on an animal's physiology, behaviour and potential pathological state if its specific needs are not met by the husbandry system, or situations that an animal finds itself in.⁷ In the UK, the Brambell Report was a significant stimulus to beginning such scientific work, with early work focusing on preference and *motivation*.

Both the history and current state of research into preferences and motivation have been succinctly reviewed (e.g Fraser and Nicol 2011, Widowski 2010), and will not be laboured here. However, the principle behind such scientific studies is that by providing animals (including differing species, and at different stages of their life) with different choices, 'preference/choice tests' can be used to determine what factors in an environment an animal prefers, or finds aversive, by observing their behaviour and measuring physiological changes in them. Operant tests, where an animal is made to work for something it wants, or wants to avoid, can similarly be used to determine the relative value of a resource to an animal, that is, the strength of their preferences or aversions. Here, a 'resource' is defined as 'a commodity (e.g. food, warmth, space), or opportunity to carry out an activity (e.g. interact with another animal, or escape from a threat' (modified from Broom and Fraser 2007)), and definitions for preference and operant tests are given in the glossary. An early example of such research was the choice tests conducted by Hughes and Black (1973) that (unexpectedly) found that chickens kept in intensive poultry houses did not prefer the type of wire flooring that the Brambell Report had recommended be installed for the benefit of their welfare, but the type of wire floor that the committee had (from an anthropomorphic perspective) deemed unsuitable. Similarly, Manser et al. (1996) report studies in rats

⁶ The FAWC has its origins in the Brambell Report.

⁷ Needs are defined here as 'a requirement, which is part of the basic biology of an animal, to obtain a particular resource or respond to a particular environmental or bodily stimulus' (Broom 2014).

demonstrating the importance of the nature of the floor in this species by requiring them to lift weighted trap doors to access the different floor types (wire vs. solid). By applying different weights to the doors required to access the different floor types, it was possible to ascertain how hard the rats are prepared to work to access the different resources (potential environmental comfort for their feet and a sense of security), with the workload involved in lifting the weighted doors giving an indication of the importance of the resource to the animal. Another, and more current, example of a zoocentric (animal centric) approach to research into animal welfare are the studies of the relative averseness of various anaesthetic agents and gasses to animals that may be used to kill them in abattoirs, or during biomedical research. Such studies have shown that many species find carbon dioxide particularly aversive (in comparison to a number of other anaesthetic agents or hypoxic gas mixtures used for killing), by examining the strength of their preference to avoid it, and/or their behaviour and physiological responses when unable to escape from it (e.g. Llonch et al. 2012, Rodríguez et al. 2016, Wong et al. 2012).

In addition to studies on choices and the strength of preferences demonstrated in the above testing situations, studies on the range of behaviours exhibited by animals over a period of time can also be used to provide data on what might be defined as ‘normal behaviour’ in a species. Different types of behaviour can be classified, and the relative amount of time spent conducting these various behaviours catalogued (time budgets). Such observational studies generate what are referred to as ‘*ethograms*’ (defined as ‘a detailed description of the behavioural features of a particular species’) and can be used to record what the behavioural characteristics are for a particular species or for an individual animal of that species (Broom and Fraser 2007). Information from ethograms provides data about what normal activities/actions/behaviours the species normally exhibits, allowing an assessment of what is important to the animal by virtue of the amount of time devoted to it (time budgets). While such assessments require a degree care in interpretation – both at a species level and at the level of an individual animal’s ethogram – significant deviations in an individual animal’s ethogram from that of the species may indicate that its needs are not being met, with measurable changes in its physiology also potentially giving an indication of this.

‘Abnormal behaviour’ has been defined as ‘behaviour in an individual animal that differs in pattern, frequency or context from that shown by most members of a species (in conditions that allow a full range of behaviour)’ (Broom and Fraser 2015). Classification systems exist to formally describe these (e.g. Broom and Fraser 2007c) and can be used as an indicator that an animal’s needs are not being met in some way. By depriving animals of something in their environment that might be considered

important to them, and examining their ethograms in the context of those of a similar species who are having this potential need addressed, deviations in behaviour can be compared, and an assessment of the importance of the resource to the animal made. Similarly, changes in the animal's physiology or anatomy (at gross and microscopic level) can be studied and catalogued as its body attempts to cope with such deprivations. In terms of motivational mechanisms, if a need is not being met, this would be expected to generate inputs into the brain to bring about behavioural change to enable an animal to try and meet these needs. The stronger and more urgent the input (in terms of the threat to the animal's viability), the more likely the animal is to try and address its 'need deficit' by changing its behaviour to address this need. Broom and Fraser (2007) refer to these inputs to the brain as 'causal factors', defining them as 'inputs into a decision making centre, each of which is a representation of an external change or internal state of the body'. Hence, an animal whose need for nutrition is not being met would be expected to be more motivated to acquire food than those not in this situation. It would do so, for example, by showing a greater 'time budget' devoted to behaviours involved in acquiring it. And when the deprivation becomes more severe, the emergence of abnormal behaviours may be observed, such as aggression, and/or eating of food sources or objects not normally consumed, through to weakness and collapse. Similarly, physiological changes associated with food deprivation would be expected to occur, and eventually changes in its anatomy at gross and microscopic level, such as emaciation, and loss of fat storage cells in the tissues.

In summary, motivational studies from animal welfare science can provide data about what actually matters to animals (their needs) by examining their preferences, and the strength of these, by observing their behaviour, and the consequences of depriving them of these on their behaviour, their physiology and their anatomy. Deprivation of these needs induces motivational changes in their brains to modify measurable aspects of their behaviour and physiology to cope with the deprivation (adaptation) to remedy the situation. A failure in the ability to adapt to the deprivation results in measurable pathological changes in their behaviour, physiology and anatomy.

Physiology, homeostasis, stress, distress and suffering

As discussed above, observation of changes in an animal's behaviour in various environmental situations can give an indication of what an animal finds important to it, in terms of what is in its best interests. Clearly maintenance of mental and bodily stability is important to its survival as it copes with variations

in its environment. Failure to do so may result in its death or a reduction in its evolutionary fitness from a Darwinian perspective (e.g. Orr 2009, Dawkins, M. 1998, Dawkins, R. 2016 for further discussion). If it is unable to adapt, it may die, or at least be less likely to be able to propagate its genes into future generations. This approach has been summarised in a statement by the National Research Council of the USA (1992) which states:

The ability to avoid, escape from, or control pain and other inducers of stress and distress is critical to the survival and well-being of many animals. Mechanisms that contribute to those abilities involve biochemical, physiological or psychological changes, and can be expressed behaviourally as the homeostatic processes of adjusting to altered environmental conditions.

There are many definitions of '*homeostasis*', including 'the tendency of the body to maintain behavioural and physiological equilibrium' (NRC 1992), 'the maintenance of a body variable in a steady state by means of physiological or behavioural regulatory action' (Broom and Fraser 2007b) and 'the steady state obtained by the optimum action of counteracting processes (physiological regulation)' (Cannon 1914, cited by Fowler 1995). However, the underlying principle is that an animal will use homeostatic mechanisms as an attempt to maintain bodily and mental stability because it is in their best interests to do so. The NCR's statement involves the term 'inducers of stress and distress' and aside from the fact that the term 'distress' is used in some animal welfare protection legislation and hence has consequences both in terms of policy making and litigation,⁸ some understanding of these terms from animal welfare science (in the context of homeostasis and their relationship to suffering) may be helpful. This will now briefly be discussed.

There are some excellent reviews of concepts of what is meant by '*stress*' in relation to animal welfare science (e.g. NCR 1992, Fowler 1995, Broom and Fraser 2007a, NCR 2008, and Blanche et al. 2011). The subject can be complex, however, and the language confusing due to unclear terminology. As Dominique Blanche et al. (2011) point out, in engineering terms, stress is the load applied to a structure, and the word strain is used to describe the response of the structure to that stress, bemoaning the similar lack of clarity in biological discourse. I have therefore tried to be clear about the meaning of words used in this paper, by overtly defining the terms used, and referencing the source of those

⁸ E.g. in national legislation deriving from Article 13 of EU Regulation 2010/63/EU.

definitions where possible. A useful (if inaccurate from an engineering perspective) definition of stress is cited by Murray Fowler (1995) as ‘the cumulative response of an animal resulting from interaction with its environment via its receptors’.⁹ Fowler thus argues that a stressor can be defined as ‘a stress producing factor which interacts with a receptor system in the animal’s body’. Similar definitions may also be helpful, such as that of the NRC, who define stress as ‘the effect produced by external (i.e. physical or environmental) events or internal (physiological or psychological factors), referred to as stressors, which induce an alteration in an animal’s biological equilibrium’ (NRC 1992). Another useful definition is Gary Moberg’s (2000) who defines stress in animals as ‘the biological response elicited when an individual perceives a threat to its homeostasis’. Moberg argues that once an animal’s central nervous system perceives a threat to its homeostasis (both physical and psychological), ‘it develops a biological response or defence’. Usefully he goes on to outline four categories of responses which the animal may make in attempt to regain its mental and bodily stability, and which are capable of objective scientific measurement: the behavioural response, the autonomic nervous system response, the neuro-endocrine response and the immune response. While interpretation of data relating to the stress response in an animal may be complicated, and require expert input, measurement of parameters relating to the animal’s physiological state, and particularly the last three categories of the stress response, in addition to observed behavioural changes, can provide a sound basis for determining the extent of stress an animal is enduring.

As discussed earlier, adaptation is ‘the use of regulatory systems, involving behavioural and physiological mechanisms that allow an animal to cope with its environment’ and coping has been defined as ‘having mental and bodily stability’. In this context, and that of a discussion of stress, Broom’s definition of welfare as ‘the state of an animal with regard to its ability to cope with its environment’ is particularly helpful. When an animal struggles to, or cannot pay the behavioural and/or metabolic costs of homeostatic mechanisms to enable it to cope with its environment, it can be considered not to be coping well and therefore to have poor welfare. Hence, objective measures of the parameters outlined by Moberg can provide a basis on which to determine the degree of (the) stress (response) an animal is undergoing – i.e. the extent to which it is able to cope – and hence the state of its welfare. However, at a

⁹ In engineering terms, that would be the ‘strain’ shown by the animal, or in biological terms perhaps more correctly ‘the stress response’ (Moberg 2000).

practical level, the NRC (1992) point out that it is ‘sometimes difficult to determine whether an animal is undergoing a normal process of adapting to a state of stress, or whether it is in distress’.¹⁰

Having introduced ‘*distress*’ into the discussion, it is important at this stage to distinguish between the term ‘distress’ as used in the context of a failing biological or mechanical system, and as used in more common language to refer to a negative and unpleasant feeling experienced by a sentient animal. This is discussed subsequently in detail, but in this current context, the term distress is being used to describe objectively verifiable scientific data that suggests an animal’s homeostatic mechanism is struggling, or failing, to cope with stressors.

Moberg (2000) uses the concept of stress and strain from engineering to look at measurable physiological and pathological indicators in animals to determine when an animal moves from a state in which it is coping well with stressors, to one where the system starts to, and finally, breaks down. If an animal is easily meeting the metabolic and/or physiological requirements for adaption, with no significant adverse effect on its functioning (the elastic state of the strain response), he considers the animal’s welfare to be good. This equates with what the NRC describes as a ‘state of comfort’ for an animal, which they define as ‘a state of physiological, psychological and behavioural equilibrium in which the animal is accustomed to its environment, and engages in normal activities’. Such a state should be scientifically definable in terms of the animal’s behaviour and physiology, with parameters being in the ‘normal’ range for that species when its needs are being met. As the effect of the stressors on an animal’s system increases to the point where it exceeds the ‘tensile strength’ of the system (in engineering terms) to cope with that level of stress, some deviation from the animal’s normal biological function can be measured, in terms of its physiology/and/or behaviour.¹¹ While the system may recover from the effect of the stressors, because these have exceeded the system’s ‘elastic limit’, some cost is incurred to the animal in terms of its ability to maintain its homeostatic balance, and while not yet becoming pathological, physiological and behavioural changes in the animal would suggest that the animal is becoming stressed. When the homeostatic mechanisms deployed to enable an animal to cope with stressors in its environment fail, Moberg considers that the animal starts to enter a ‘pre-pathological

¹⁰ In Broom’s terms, when that cost to the animal of coping with the adaptation required is high.

¹¹ This state appears similar to what the NRC (1992) describe as discomfort, which they define as ‘a minimal change in an animal’s adaptive level or baseline state as a result of changes in its environment or biologic, physical, social or psychological alterations; physiological or behavioural changes that indicate a state of stress might be observed, but be not so marked as to indicate distress’.

state'. This eventually leads to behavioural, physiological and anatomically describable pathologies from which the animal cannot recover. Such a situation resembles the description of distress in animals suggested by the NRC (an aversive state in which the animal is unable to adapt completely to stressors and the resulting stress, and shows maladaptive behaviours and pathological conditions). It also has considerable similarity with Moberg's own view of distress, according to whom it is 'the point at which the stress response is sufficiently severe or prolonged it shifts sufficient resources to impair other biological functions'. Moberg goes on to say that 'when this occurs, the animal enters the pre-pathological state, is at risk of developing a pathological state and experiencing distress' (Moberg 2000).¹²

The concept of the stress response provoked in animals, as a result of a failure of the environment to provide them with their biological needs, is invaluable in determining whether an animal is *suffering*. By examining objectively measurable physiological, behavioural and pathological data from an individual animal (as for example presented in evidence in a court case), it is possible to reasonably determine the extent to which a failure to provide for its needs has impacted on its welfare and to what extent its homeostatic mechanisms have reached a point of distress. Since the Brambell Report of 1965, animal welfare science has provided a huge body of objectively verifiable peer-reviewed data on the physiology, anatomy and behaviour of animals in situations where their needs are being met, and the changes that occur in these parameters when they are not, and therefore, when their homeostatic mechanisms are becoming distressed. Space precludes a resume of biochemical/physiological, behavioural and anatomical/pathological parameters that can be used to examine the four areas of an animal's biology that Moberg states are important criteria to examine in relation to the stress response.¹³ However, good overviews of some of the parameters and methodologies used for such assessments are available (e.g. Gregory 2004, Broom and Fraser 2007a, and Blanche et al. 2011) and include parameters such as ethograms, hormone levels, biochemical and haematological parameters, clinically observable data such as that relating to the animal's heart and breathing rate, and temperature, as well as anatomical observations at gross and microscopic level. Provided experts in the field of animal welfare interpret data

¹² Perhaps confusingly, these descriptions of 'distress' are very similar to definitions that have been used for 'stress' by other authors (e.g. Broom 2014 and Fraser et al. 1995); these have been included in the glossary under the term 'stress', but put in italics to delineate the difference between how I use the terms 'stress' and 'distress' in this article, and how they are used by the above authors.

¹³ To wit, the behavioural response, the autonomic nervous system response, the neuro-endocrine response and the immune response.

which is produced in evidence in court about animals that are the subject of cases brought for unnecessary suffering, courts can be in a position to make valid and reasonable assumptions about the state of an animal's welfare. Hence, by examining scientifically demonstrable parameters relating to aspects of an animal's physiology and behaviour, the court can come to a decision based on objective criteria as to whether the animal's homeostatic mechanisms had been compromised to the point at which they had become distressed. An example of this approach is exemplified by Broom and Andrew Fraser (2007) who ask a number of questions in relation to an animal's physiological and behavioural parameters to determine the state of its welfare. These questions are shown in Table 1.

Behavioural parameters	Physiological parameters
What physiological indicators of pleasure are demonstrable?	What physiological indicators of pleasure does the animal demonstrate?
What is the extent to which strongly preferred behaviours are shown?	To what extent are normal physiological processes and anatomical developments are possible?
What is the extent to which the variety of normal behaviours is exhibited?	Is the animal demonstrating physiological attempts to cope?
To what extent are behaviours associated with attempting to cope with its environment shown?	What is the extent to which the animal is undergoing suppression if its immune system?
To what extent are aversive behaviours shown?	What are the extent of disease processes in the animal?
To what extent does the animal demonstrate behavioural pathologies?	What is the extent of damage to its body?
	To what extent are its circumstances reducing its ability to grow and reproduce, and shortening its life expectancy?

Table 1. Questions that may be asked in assessment of an animal's welfare based on its behaviour, its physiology, and its anatomical state (modified from Broom and Fraser 2007a).

4. Welfare, sentience, emotions and feelings

The astute reader of this article will have noticed that much of the above discussion about animal *welfare* is couched in terms of the language of engineering, reflecting an almost Cartesian mechanistic approach to animal welfare, where animals are merely machines that have evolved to propagate their genes into the future in a way suggested by Dawkins. According to this view, failure to meet its needs results in a breakdown of the machine in much the same way as failure to meet a car's needs by not servicing it at the required times will cause it to fail. This is certainly likely to be the case for some lower animals, although the limits at which sentience emerges in the evolutionary phylogeny is still a topic for debate. In legislation there are often inconsistencies even within the same country. In the UK, for example, some invertebrates are protected under the Animal (Scientific Procedures) Act 1986 amendment regulations 2012, Section 3, but not at present under Section 1 of the AWA 2006. However, the three definitions of animal welfare quoted at the beginning of the article all refer to the animal's internal mental state ('feeling good' (Webster 2005), 'subjective experience' (Fraser et al. 1997) and 'mental stability' (Broom 2014)), along with the overtly describable physical characteristics pertaining to the state of its welfare.

As discussed in the first part of this article, the presence of *sentience* in a species is increasingly the boundary at which legal protection is being afforded to an animal in terms of its welfare (see e.g. Section 1 (4) of the AWA 2006 in the UK), and in terms of what sentience is. Webster's view that a sentient animal is 'one for whom its feelings matter to it' is a useful starting point. The questions therefore arise: what are feelings, and how do we know they occur in animals (human or non-human) who cannot directly report their internal mental state to us? Again, as previously discussed, Thorpe's assertion that '[t]he reactions of animals to the kind of stimuli that cause pain or fear in ourselves are very often but not always similar to our own, so we immediately have a sympathetic feeling for the animal' provided an anthropomorphic justification for the assumption that animals have feelings and are therefore sentient.

This heuristic and anthropomorphic approach is not unreasonable, and has been argued for as a 'precautionary principle' in regard to protecting animal welfare in legislation (e.g. Robertson 2015). Such an approach to animal welfare is exemplified by the Organisation for Economic Co-operation and Development's (OECD) guidance document on the use of experimental animals used in safety evaluation. This document states: 'If something is known to cause suffering in humans, it should be assumed to cause suffering in animals', where it defines suffering as '[a] negative emotional state that in human beings is produced by persistent pain/and/or distress' (Organisation for Economic Co-operation

and Development 2000). Similarly, this anthropomorphic precautionary principle overtly forms part of legislation to protect animals used in biomedical research in the USA.¹⁴ However, data from animal welfare science can be used to better inform the validity of anthropomorphic concerns by providing objective criteria on which to determine what an animal's subjective feelings are, along with a more nuanced approach to what their needs are, and how they respond when they are deprived of them.

The above assertion is based on the link between the words '*emotions*' and '*feelings*' as used in animal welfare science and the assumption that from an evolutionary perspective, '*feelings*' did not arise *de novo* in *Homo sapiens sapiens*. This will now be discussed. A useful starting point for this discussion is the afore mentioned assertion from Decety who suggests that 'the human social brain, as well as all other mammalian brains, is fundamentally built on ancient emotional and motivational value systems that generate affective states as indicators of potential fitness trajectories'. This statement is predicated on findings that 'emotional and motivational value systems' have evolved in animal species over time, and confer some form of evolutionary advantage on species that have them. It is therefore unlikely that they are unique to our species. As discussed, animals are motivated to act in ways that are in their own interests, and make physiological and behavioural changes to enable them to cope with their environments. Part of this motivational mechanism is the generation of '*feelings*' in the brain which cause behavioural change in response to changes perceived in the animal's body, or its environment. These changes are a result of inputs into the brain from receptors that monitor the environment at a distance (teleceptors), the interaction with the animal's surface structures (exteroceptors) or the consequences on the animal's biochemistry (interoceptors) (Fowler 1995). These receptors cause changes in the animal's physiology and behaviour. The effect of these interactions between the animal and its environment is measurable and such describable physiological and behavioural states are often referred to as '*emotional states*' in animal welfare science. This view of the role of feelings in motivating behaviour has been discussed by Mendl (2009), who suggests:

Most emotion researchers consider that emotions arise in situations that are '*important*' to the organism, in the sense that they may influence its survival and reproductive success. The primary function of emotions in these contexts is widely hypothesised to

¹⁴ See U.S. Government Principles for the Utilization and Care of Vertebrate Animals Used in Testing, Research, and Training which state in principle 4: 'Unless the contrary is established, investigators should consider that procedures that cause pain or distress in human beings may cause pain or distress in other animals' (U.S Government nd).

be to guide the animal's behavioural decisions in order to achieve survival goals – the attainment of valuable resources/rewards, and the avoidance of harm/punishment – perhaps by providing a 'common currency' that the animal uses to determine which behaviour or sequence of behaviours is most likely to enhance survival.

The expression 'emotional state' has a relatively well defined meaning in animal welfare science,¹⁵ and is different from that used in every day language common parlance, where the words 'emotion' and 'feelings' are often used interchangeably. In animal welfare science, the word 'feeling' is usually used to describe an internal subjective mental state.¹⁶ The term emotion has a different meaning, although one which may involve feelings. Broom defines emotions as 'physiologically describable conditions in individuals characterised by electrical and neurochemical activity in particular areas of the brain, autonomic nervous system activity, hormone release and peripheral consequences, including behaviour' (Broom and Fraser 2007b). The emotional state of an animal can thus be determined with reference to scientifically observable parameters in that animal, such as those discussed above in the section on homeostasis. Broom also acknowledges that emotions may be associated with 'awareness' (feelings), but he argues that this is not necessarily always so (Broom 2003). Boissy et al. 2007 take a similar approach to defining emotion as 'an intense affective response to an event that is associated with specific bodily changes'. Here, like Broom's definition, a specific emotional state can be described in terms of 'specific bodily changes'.¹⁷ Subsequently Boissy has gone on to state that

an emotion may be considered as having three components; a subjective component (what one feels), and two expressive components, a behavioural component (what the animal shows to others, e.g. facial expressions) and a neurophysiological component (how the body responds, e.g. physiological responses to stress) (Jones and Boissy 2011).¹⁸

Animal welfare science therefore argues that in sentient animals, describable physiological and behavioural states (Boissy and Jones's 'expressive component' of emotions) can provide a direct and

¹⁵ It may vary slightly from author to author, however.

¹⁶ E.g. a brain construct, involving at least perceptual awareness, associated with a life regulating system, which is recognisable by the individual when it recurs, and may change behaviour, or act as a reinforcer to learning' (Broom, and Fraser 2007b)

¹⁷ Although Boissy et al. infer that it always contains an affective component as well, that is, it involves feelings.

¹⁸ This view also resonates with that of Mendl et al. 2009.

objective mechanism for determining what the subjective component of the emotion is (what it feels about its situation). These feelings are important drivers of behaviour to address the challenges from the environment that are perceived by receptors in the animal and fed to the brain to motivate behaviours to regain the mental and bodily stability required for survival. Ewbank (1988) and Wolfensohn and Lloyd (1998) both provide a definition of distress that integrates Moberg's view of distress (a predominantly 'expressive' view in terms of emotional states) with that of Boissy et al. in relation to feelings and emotions. These definitions are reproduced in the glossary, and suggest that distress could be considered as a severe stress response in which there is some evidence that the animal is conscious of what is going on and finds it unpleasant – hence linking observable (expressed) behavioural and physiological and pathological changes in the animal to its conscious experience.

To exemplify the argument, one might consider an animal whose nutritional needs are being compromised. An absence of food will lead to receptors in the animal to signal that metabolic changes are required to adapt to this challenge to its homeostasis, causing measurable changes in its physiology and generating negative affective states (such as hunger) in the brain. These affective states will motivate the animal to seek nutrition to restore its metabolic balance and, once restored, the motivation will subside. However, should the need for nutrition not be met, the animal's mental and bodily stability will deteriorate as it is unable to adapt to the challenge to its homeostasis and its homeostatic mechanisms become distressed. Such severe challenges to the animal's homeostasis are manifest as an observable and measurable severe stress response, which suggests that it is the point at which the animal consciously finds its situation unpleasant as its attempts to cope with its situation are unsuccessful.¹⁹

If, as I suggest, suffering is considered to be a 'negative aversive unpleasant subjective feeling', while animals cannot verbally communicate their feelings to us, examining objective parameters relating to an individual animal's physiology and behaviour (and any pathological changes that may be occurring) provides an objective and valid mechanism to deduce what they are. By examining such parameters in the context of published data from welfare science literature, these objective measurements can be used to give a good indication of an animal's feelings about its situation, and hence whether its subjective feelings are negative, aversive and unpleasant, or not.

¹⁹ That is, they are frustrated, defined as 'when an action generated by causal factors can not be achieved' (Broom and Fraser 2007b).

5. Freedoms, needs and welfare assessment systems

One of the early recommendations from the Brambell Report was that animals should be kept free from certain negative aversive mental states, by provision of needs which they describe in broad terms. These have become known as The Farm Animal Welfare Council's '*Five Freedoms*' and have become a foundation for informing AWPL, government and food industry policy across many jurisdictions (Farm Animal Welfare Council 2009). Briefly revisiting FAWC's Five Freedoms may be useful given my contention that suffering is a negative/aversive mental state. They are the following (FAWC nd):

1. Freedom from hunger and thirst, by ready access to water and a diet to maintain health and vigour.
2. Freedom from discomfort, by providing an appropriate environment.
3. Freedom from pain, injury and disease, by prevention or rapid diagnosis and treatment.
4. Freedom to express normal behaviour, by providing sufficient space, proper facilities and appropriate company of the animal's own kind.
5. Freedom from fear and distress, by ensuring conditions and treatment which avoid mental suffering.

Much of the work of animal welfare science since the Brambell Report has subsequently tried to address the issue of what, for example, is *an appropriate diet* for a particular animal at a particular state in its life (and in certain conditions of husbandry) to avoid hunger (1), or *what conditions and treatments* cause, or do not cause, mental suffering (5). As discussed previously, this has been done by using motivational studies and examining the consequences on the biology of animals in failing to meet their *needs*. Such studies providing objective data about the animal's behaviour, physiology and any pathological changes that may occur in situations where their needs are not being met. In the UK, such data has been used to inform 'Codes of Practice' regarding how animals must be kept in order to meet their needs to the minimum extent required in law. Such Codes have legal effect when it comes to prosecutions for causing un-necessary suffering when these needs are not met, as 'failure to comply with a relevant provision of a code of practice issued under this section may be relied upon as tending to

establish liability’ (Section 14 (4)a Animal Welfare Act 2006). Similar approaches are used across many countries.²⁰

At the level of practical *welfare assessment*, a number of authors and research organisations have reverse engineered FAWC’s Five Freedoms to categorise the source of environmental factors that may give rise to subjective feelings. In this context, the work of David Mellor is helpful, as it provides a useful matrix on which affective states can be considered in relation to environmental factors which may challenge an animal’s homeostatic mechanisms. It is referred to as ‘Mellor’s Five Domains Model’ (Mellor and Beausoleil 2015). An excellent explanation is available at this reference, but Table 2 below may be helpful in explaining the principle behind Mellor’s approach.

Physical/Functional Domains							
<i>Survival related domains</i>						<i>Situation related domain</i>	
1. Nutrition		2. Environment		3. Health		4. Behaviour	
Lack of food	Plenty of food	Too hot	Thermo-neutral	Injury	Fitness	Predator presence	Nursing offspring
5. Affective Experience Domain							
Negative affect	Positive affect	Negative affect	Positive affect	Negative affect	Positive affect	Negative affect	Positive affect
Hunger	Satiety	Heat distress	Comfort	Pain	Vitality	Fear	Contentment

Table 2. Mellor’s Five Domains, showing examples of different situations relating to the four physical functional domains, and the consequences on the fifth affective experience domain, relating to nutritional needs, thermal requirements, health parameters and behavioural opportunities.

Mellor combines the imperatives in FAWC’s Five Freedoms required to ensure that animals are free from the negative aversive states into four ‘domains’, which he refers to as the four ‘physical/functional domains’. Of these four domains, Mellor refers to the first three as ‘physical domains’. These include nutrition challenges, environmental challenges relating to the animals ‘comfort’

²⁰ See e.g. the pan-European Directive 2010/63/EU which, in Annex iii, sets out requirements for the keeping of various species used in biomedical research.

and challenges relating to the animal's health (which he refers to as 'survival related factors'). Additionally, there is a fourth domain which he refers to as the 'functional domain' and in which he considers factors that may challenge an animal's behavioural needs (which he refers to as 'situational related factors' affecting the animal centred on restriction of 'agency'). In this context Mellor defines 'agency' as 'engagement in voluntary, self-generated and goal-directed behaviours' and this could be considered as the ability to carry out certain behaviours that are part of the animal's evolutionary Telos, such as specific exploration or threat avoidance behaviours. As has been described previously, objective physiological, behavioural and pathological data relating to challenges to the animal's homeostasis from the four physical/functional domains can be demonstrated if an animal's needs are not being met. Examples from the four domains might include: physiological, behavioural and pathological data relating to the nutritional status of an animal (nutritional domain); excessively high body temperatures recorded in animals (or vehicles) transporting animals (environmental domain); the presence of disease processes such as septic arthritis found at clinical examination or post mortem (health domain); or description of behavioural pathologies that are observed, such as excessive fear responses or stereotypic behaviour (behaviour domain).²¹ Mellor then links these four physical domains with an 'affective experience domain' (the fifth domain) in a similar way to that which Boissy et al. use to link the expressive component of an emotional state with the subjective component of that emotional state (i.e. how the animal feels about its situation). Hence, while to some extent Mellor's 'Five Domain's Model' is not conceptually new (given FAWC's Five Freedoms), it brings together the concept of what an animal's affective state is (its feelings) by linking them explicitly to the demonstrable component of emotional states caused by challenge to an animal's homeostasis from specific components of the environment in which it lives. By scientifically examining the effect on these challenges on the animal's homeostatic mechanisms, the likely effect on the animal's 'affect' can be rationally inferred and hence whether it is experiencing suffering or pleasure.

Mellor refers to a number of affective states that an animal may be enduring (and can reasonably be linked with the describable component of their emotional state by virtue of objective measurements of their physiology, behaviour and any pathology present) – both positive (pleasurable) and negative (aversive). Aversive terms used include words such as thirst, hunger, nausea, pain, fear, anxiety,

²¹ Stereotypical behaviour is a form of behaviour associated with poor welfare and is defined as 'repeated relatively invariant sequence of movements having no obvious purpose' (Broom and Fraser 2007 b; for a more detailed review of stereotypies see Mason et al. 2007).

frustration, debility, breathlessness (air hunger), helplessness and boredom. These affective states could reasonably be construed as forms of suffering if the challenge to the animal's homeostasis that generated these states was sufficiently severe that the animal was not able to cope with the challenge, that is, if it was becoming distressed.²² Such an approach is also used by the EU Welfare Quality system for welfare assessment, although here, the scientific measures used to assess the animal's welfare state are made more explicit than in Mellor's Five Domain Model (which infers that measures can be made, rather than specifying what methods are used at a technical level). The EU funded 'EU Welfare Quality' project (Welfare Quality Network) was established to provide scientific data on which validated welfare assessments could be conducted in order to help consumers make purchasing decisions based on the welfare of the animals they are eating when they were alive (European Union). Like Mellor's approach it uses four welfare principles (good feeding, good housing, good nutrition and appropriate behaviour) as aims against which to measure an animal's welfare (i.e. whether these aims are achieved) and then asks observers to assess a number of criteria associated with these. The system then requires the development of validated measures to access the criteria (behavioural, physiological or anatomical) and define the methodology to access the measures. The relationship between the four principles and the twelve criteria are set out in Table 3, along with their relationship to FAWC's Five Freedoms and Mellor's Four physical domains.

²² See the glossary for definitions of the ways some of the terms for these affective states are used in animal welfare science.

Principle	Criteria
Good Feeding <i>(Nutritional domain and Freedom 1)</i>	<ol style="list-style-type: none"> 1. Absence of prolonged hunger 2. Absence of prolonged thirst
Good Housing <i>(Environmental domain and Freedom 2)</i>	<ol style="list-style-type: none"> 1. Comfort around resting 2. Thermal comfort 3. Ease of movement
Good Health <i>(Health domain and Freedom 3)</i>	<ol style="list-style-type: none"> 1. Absence of injuries 2. Absence of disease 3. Absence of pain induced by management procedures
Appropriate Behaviour <i>(Behaviour domain and Freedoms 4 and 5)</i>	<ol style="list-style-type: none"> 1. Expression of social behaviour 2. Expression of other behaviours 3. Good human-animal relationships 4. Absence of general fear

Table 3. EU Welfare Quality Principles and Criteria, with FAWC’s ‘5 Freedoms’ and Mellor’s ‘Four physical domains’ added in italics.

Welfare assessment methods such as those described above – using behavioural, physiological and pathological data from animals in different circumstances – can reasonable and objectively be used to determine whether an animal is suffering by virtue of enduring a negative aversive subjective mental state (feeling). As discussed, such an approach is used, for example, in relation to using validated measures of animal welfare to inform consumers of the welfare standards the animals they eat enjoyed (or otherwise) while they were alive. Such an approach also finds legislative expression in the field of biomedical research where it is used to inform decisions about granting legal permissions to conduct such research.

Statutory protection and assessment of animal welfare in biomedical research

In many jurisdictions across the world, prior legal approval of biomedical experimental procedures using animals is required before the research can begin. Such legal approval for causing harm to these animals usually requires a prospective ethical analysis of the proposed work, involving an assessment of the likely aversive impact of the research on the animal’s welfare. Examples include Directive 2010/63/EU in the European Union, where an assessment of the harms caused to the animals protected under the Directive

must be balanced against the likely wider benefits that might accrue (Introduction, paragraph 39 Directive 2010/63/EU). A similar role for ethical analysis of animal use is required by Institutional Animal Care and Use Committees being mandated in the United States of America and established under the Health Research Extension Act 1984 (National Institute of Health nd).

Such ‘harm-benefit analysis’ prior to legal authorisation of research clearly requires an analysis of the degree of harm that is likely to occur to an animal as a result of different experimental procedures. Based on this analysis, the harms can then be weighed against the proposed likely benefits that will accrue to society. In the case of 2010/63/EU, these harms are classified into bands of severity of harm: non-recovery, mild, moderate and severe (Article 15 (1)), using the assignment criteria set out in Annex VIII of the Directive. This Annex sets out a comprehensive list of techniques that might be used in biomedical research and assigns them to the various bands of severity of harm.²³ While such a classification system for ‘harms’ animals may endure may be based in part on anthropomorphically driven assessments of the consequences of challenges to the animal’s homeostasis by the various procedures it may undergo as part of the biomedical research, a substantial body of scientific evidence relating to the consequences for the animal’s welfare has been generated on which an objective justification for such a classification system can be based (e.g. National Centre for the Replacement, Refinement and Reduction of Animals in Research (NC3Rs nd).

Such research is based in part on the legal requirement to minimise suffering to the animals in many jurisdictions and also the legal requirement to monitor the level of welfare of individual animals during the procedures, so that severity levels set during the licencing process for the research are not breached (e.g. Articles 24 and 39 of 2010/63/EU in the European Union, with a similar requirement in legislation in the USA (National Research Council 1992)). This therefore requires scientific methods for assessing the levels of suffering that occur during the experimental procedures, which can further inform decisions about the classification of the severity of suffering caused by various procedures. Annex VIII of 2010/63/EU may therefore provide a useful ‘a priori’ starting point for courts in determining whether an animal is likely to have suffered as a consequence of the situation it found itself in (and also the degree

²³ Within the Directive, procedure is defined as ‘any use, invasive or non-invasive, of an animal for experimental or other scientific purposes, with known or unknown outcome, or educational purposes, which may cause the animal a level of pain, suffering, distress or lasting harm equivalent to, or higher than, that caused by the introduction of a needle in accordance with good veterinary practice’.

of suffering caused) by virtue of the scientific evidence that has been accepted by legislators in the European Union as sufficiently sound to justify its inclusion in the Directive.

6. Conclusions and summary

The above arguments have attempted to justify why the formulation for the definition of suffering in the Animal Welfare Act 2006 in the UK (as devolved)²⁴ is useful from the perspective of animal welfare science. This is because it allows the courts to consider a definition of suffering as an aversive/negative subjective mental state. Many aversive/negative subjective mental states may occur in animals as a result of challenges to their homeostatic state from the environment, should they be unable to cope with them. These mental states can reasonably be deduced with reference to observable changes in the animal's physiology, behaviour and pathological state. Such data can be used as evidence in court to show whether or not an animal has undergone an aversive/negative subjective mental state as a result of deprivation of its needs. Such an approach allows for the incorporation of a wide range of aversive/negative subjective mental states which are not defined in Primary legislation, with Mellor's 'Five Domains Model' being a recognised example of such an approach.

The subject of animal welfare science is a complex one, and evidence relating to objective data collected from animals that may have suffered may require careful interpretation by experts. However, provided experts in the field are clear about the terminology they are using in their reports, animal welfare science can be of considerable value by providing objective criteria on which a decision can be made about whether an animal has suffered. Unlike the purely anthropomorphic approach discussed by Thorpe, objective data presented in evidence and considered in the context of the published canon of findings from animal welfare science (i.e. about what really matters to animals and the consequences on their biology if these needs are egregiously frustrated) can be used to take a more 'zoocentric' approach to whether an animal has suffered. Such a zoocentric approach has been championed by Burghardt, who uses the term 'critical anthropomorphism' to describe a zoocentrically nuanced approach to interpretation of data relating to animal welfare. According to Burghardt, critical anthropomorphism involves 'statements about animal joy and suffering, hunger and stress, images and friendships which are based on a careful knowledge of the species, and the individual, careful observation, behavioural and

²⁴ 'Suffering means physical or mental suffering, and related expressions shall be construed accordingly'.

neuroscience research, our own empathy and intuition, and constantly refined publically verifiable predictions' (Burghardt 1997). As such, animal welfare scientists are therefore in a strong position to justify (or refute) claims about whether an animal has suffered, because of their training.

While I do not agree with Wooler's view that the definition of suffering in the UK's Animal Welfare Act 2006 is problematic for the reasons above, considerable sympathy for the problems associated with expert witness testimony in achieving convictions is warranted. Experts in the field of animal welfare science can provide considerable assistance to the court, but clearly defined use of terminology within the context of opinions offered by experts is important in avoiding fallacies of ambiguity, as is referencing from the literature of the justification for opinions presented. The paper by Baumgartner et al. (2016) cites reports from 42 veterinary experts, and the disagreements that may arise between them in relation to what suffering is and whether it has occurred. However, it does not state how many of these veterinary surgeons had additionally achieved recognised qualifications in the field of animal welfare science. Clearly it is for a court to decide whether to grant a witness 'expert status', but it is possible that the level of expertise in the field of animal welfare science may have varied considerably between the authors of the reports.

Veterinary surgeons, by virtue of their undergraduate training, will have had some formal education in assessment of animal welfare, as well as their predominant training in the field of animal health. Some may have postgraduate education leading to internationally recognised qualifications in the field. However, I would contend that in the same way that not all individuals who are experts in the field of animal welfare are veterinary surgeons, not all members of the veterinary profession can be considered experts in the field of animal welfare science (even if they have some basic knowledge of it). It is therefore possible that in some courts in the UK, confusing testimony from 'witnesses of fact' with that from 'expert witnesses' may have contributed to the problem that Wooler has identified. Some of the problem he describes in relation to expert witnesses does not originate from a failure of animal welfare science in assisting the court (by providing objective verifiable data on animals that can be interpreted in the light of the published science in that field) but may rather depend on the criteria by which the court accepts the status of a witness as 'expert'.

Glossary of terms from animal welfare science used in this paper

Adaptation

The use of regulatory systems, involving behavioural and physiological mechanisms, that allow an animal to cope with its environment (Broom and Fraser 2007 b).

Affective states

A wide range of pleasant and unpleasant (mental) states (Verbeek and Lee 2014).

Agency

Engagement in voluntary, self-generated and goal-directed behaviours (Mellor and Beausoleil 2015).

Animal Welfare

An animal's capacity to avoid suffering and sustain fitness (good welfare is fit, feeling good) (Webster 2005).

The state of an animal with regard to its ability to cope with its environment (Broom 2014).

Three components: health (fitness), naturalness (Telos) and subjective experience (feelings) (Fraser et al. 1997).

The quality of an animal's subjective experience (pain, fear, warmth pleasure) (CAWC 2003).

Anthropomorphism

The attribution of human characteristics (including the projection of subjective states and feelings) to non-human entities (Morton et al. 1990).

Anxiety

The reaction to a potential (as yet unreal) threat (Jones and Boissy 2011).

Arousal

The degree to which an emotional experience is calming or excitatory (after Kensinger 2004).

Awareness

A state in which complex brain analysis is used to process sensory stimuli or constructs based on memory (Broom and Fraser 2007b).

Behavioral Needs

Activities that animals have instinctive, intrinsic propensities to perform whatever the environment is like, even when the physiological needs that the behaviour serves are fulfilled and

even when these behaviours are not necessary for fitness (Mason and Burn 2011).

Boredom

The absence of behavioral opportunities (nothing to do) (Mason and Burn 2011).

Causal Factors

Inputs into decision making centres, each of which being an interpretation of an external change or internal state of the body (Broom and Fraser 2007b).

Comfort

A state of physiological, psychological and behavioural equilibrium in which the animal is accustomed to its environment and engages in normal activities (NRC 1992).

Consciousness

The ability to perceive and respond to sensory stimuli (Broom 2014).

Coping

Having mental and bodily stability (Broom 2004).

Critical anthropomorphism

Statements about animal joy and suffering, hunger and stress, images and friendships, based on a careful knowledge of the species, and the individual, careful observation, behavioural and neuroscience research, our own empathy and intuition, and constantly refined publicly verifiable predictions (Burghardt 1997).

Discomfort

A minimal change in an animal's adaptive level or baseline state as a result of changes in its environment or biologic, physical, social or psychological alterations; physiological or behavioural changes that indicate a state of stress might be observed, but are not so marked as to indicate distress (NRC 1992).

Distress

The point at which the stress response is sufficiently severe or prolonged it shifts sufficient resources to impair other biological functions (Moberg 2000).

An aversive state in which the animal is unable to adapt completely to stressors and the resulting stress and shows maladaptive behaviours and pathological conditions (NRC 1992).

The high level (stress) response which has high biological cost, is damaging to the the animal

and probably sensed by the animal as unpleasant (Ewbank 1988).

(When) considerable effort has been put into the (stress) response, of which the animal is aware. The animal can be considered to be suffering (Wolfensohn and Lloyd 1998).

A severe stress response in which there is some evidence that the animal is conscious of what is going on and finds it unpleasant (Fordyce, P.).

Emotion

Physiologically describable conditions in individuals characterised by electrical and neurochemical activity in particular areas of the brain, autonomic nervous system activity, hormone release and peripheral consequences, including behaviour (Broom and Fraser 2007b).

An intense affective response to an event that is associated with specific bodily changes (Boissy et al. 2007).

Empathy

The ability to recognize the emotions and feelings of others with a minimal distinction between self and the other (Decety 2010).

Ethogram

A detailed description of the behavioural features of a particular species (Broom and Fraser 2007).

Fear

A response to the perception of actual danger (Jones and Boissy 2011).

Feelings

A brain construct, involving at least perceptual awareness, associated with a life regulating system, which is recognisable by the individual when it recurs, and may change behaviour, or act as a reinforcer to learning (Broom, and Fraser 2007b).

Fitness

Reduced mortality, increased growth and reproductive success (modified from Broom 2014).

Frustration

When an aim generated by causal factors cannot be achieved (after Broom and Fraser 2007b).

Health

The state of an animal with regard to its ability to cope with pathology (Broom 2014).

Homeostasis

The maintenance of a body variable in a steady state by means of physiological or behavioural regulatory action (Broom and Fraser 2007b).

The tendency of the body to maintain behavioural and physiological equilibrium (NRC 1992).

The steady state obtained by the optimum action of counteracting processes (physiological regulation) (cited by Fowler 1995).

Motivation

The process in the brain controlling which behaviours and physiological changes occur, and when (Broom and Fraser 2007b).

Nausea

An unpleasant sensation often associated with the urge to vomit (Holmes et al. 2009).

Need

A requirement, which is part of the basic biology of an animal, to obtain a particular resource or

respond to a particular environmental or bodily stimulus (Broom 2014).

Operant Test

Where a cost is imposed on an animal on access to a resource, or escape from an aversive situation, by requiring an animal to perform a task (cost is defined as expenditure of time, energy, or risk of adverse events) (after Broom and Fraser 2007).

Pain

An aversive sensation and feeling associated with actual or potential tissue damage (Broom 2014).

Pathology

The detrimental derangement of molecules, cells and functions that occur in living organisms in response to injurious agents or deprivations (Broom 2014).

Preference Test

When an animal is required to make a sacrifice of some kind when it gains access to some quantity of a resource, or spends a certain amount of time consuming it (anonymous).

Resource

A commodity (e.g. food, warmth, space) or opportunity to carry out an activity (e.g. interact with another animal, escape from a threat) (after Broom and Fraser 2007).

Sentient animal

One that has the capacity to have feelings and experience suffering and pleasure (Australian Government 2008).

One for whom its feelings matter (Webster 2006; Compassion in World Farming).

One having the capacity to suffer or experience enjoyment of happiness (Singer 1979).

One that has the awareness and cognitive ability necessary to have feelings (Broom 2014).

Stereotypic behaviour

Repeated relatively invariant sequence of movements having no obvious purpose (Broom and Fraser 2007b).

Stress

The biological response elicited when an individual perceives a threat to its homeostasis (Moberg 2000).

The effect produced by external (i.e. physical or environmental) events or internal (physiological or psychological factors), referred to as stressors, which induce an alteration in an animal's biological equilibrium (NRC 1992).

The cumulative response of an animal resulting from interaction with its environment via its receptors (cited by Fowler 1995).

The animal's state when it is challenged beyond its behavioural and physiological capacity to adapt to its environment (Fraser et al. 1975).

An environmental effect on an animal that overtaxes its control systems resulting in adverse consequences, and eventually reduced fitness (Broom 2014).

Stressor

A stress producing factor (Fowler 1995).

Suffering

A negative emotional state that in human beings is produced by persistent pain/and/or distress (OECD 2000).

One or more bad feelings continuing for more than a short period (Broom and Fraser 2007).

Essentially the extended experience of negative feeling in the spectrum from pain, through it to frustration (cited by Baumgartner et al. 2016).

Strong negative affective states such as severe hunger, pain or fear (cited by Baumgartner et al. 2016).

The physical and emotional syndrome that develops as a result of unrelieved severe pain (cited by Baumgartner et al. 2016).

Experiencing one of a wide range of extremely unpleasant subjective (mental) states (cited by Baumgartner et al. 2016).

A set of negative emotions such as fear, pain and boredom, and recognised operationally as states caused by negative emotions (cited by Baumgartner et al. 2016).

Suffering means physical or mental suffering, and related expressions shall be construed accordingly (Animal Welfare Act 2006 (as devolved in the UK), cited by Baumgartner et al. 2016).

The bearing or undergoing of pain, distress or tribulation (cited by Baumgartner et al. 2016).

A negative emotional state that in human beings is produced by persistent pain/and/or distress (OECD 2000).

Sympathy

The feeling of concern about the welfare of others (Decety 2010).

Telos

The set of needs and interests, physical and psychological, genetically encoded and environmentally expressed that makes up the animal's nature. It is the pigness of the pig, the dogness of the dog. (Rollin 1986, cited by Verhoog, H. 2005).

Valence

A positive or negative subjective mental state arising from experience (after Kensinger 2004).

'Zoocentric approach'

Considering the animal's needs from the perspective of its Telos (see 'Telos' above).

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FROM INSIDE THE CAGE TO OUTSIDE THE BOX
Natural Resources as a Platform for Nonhuman Animal Personhood
in the U.S. and Australia

by Randall S Abate* and Jonathan Crowe**

Abstract

Nonhuman animals are currently treated as property under U.S. and Australian law, leaving them open to various kinds of exploitation. There has been a gradual evolution away from this property paradigm in both countries, but significant work remains to ensure that nonhuman animals are afforded adequate legal protections. This article considers the legal avenues available to protect nonhuman animals in the U.S. and Australia, focusing particularly on the attribution of legal personhood. Section 2 of the article reviews attempts by the Nonhuman Rights Project (NhRP) to establish legal personhood protections for nonhuman animals through writ of habeas corpus petitions under U.S. common law. Section 3 surveys the options for recognition of animal personhood under Australian law, discussing issues of standing, habeas corpus, and guardianship models. Section 4 discusses the growing movement to assign legal personhood rights to natural resources. The article proposes that to the extent that natural resources have received legal personhood protection to recognize their inherent value, similar protections should be afforded to animals. In the meantime, habeas corpus, standing, and guardianship theories provide valuable procedural platforms for incremental progress toward protecting nonhuman animals in both the U.S. and Australia.

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1. Introduction

[T]he mental faculties of man and lower animals do not differ in kind, but immensely in degree. A difference in degree, however great, does not justify us in placing man in a distinct kingdom¹

The law governing the protection of nonhuman animals in the U.S. and Australia is ripe for transformation. Nonhuman animals are currently treated as property under U.S.² and Australian³ law, which has enabled widespread exploitation of nonhuman animals in multiple contexts including medical experimentation, food production, and entertainment.⁴ Fortunately, there has been a gradual and long-overdue evolution away from this property paradigm in the past decade in the U.S., with many groundbreaking victories to promote animal welfare⁵ that offer hope for the future. Australian law has also shown signs of moving away from the property paradigm. Nevertheless, significant work remains to ensure that adequate legal protections are implemented for nonhuman animals.

Seeking legal personhood status for nonhuman animals is a recent and valuable effort underway to secure enhanced protection for nonhuman animals in the U.S.⁶ and Australia.⁷ Although the term

¹ CHARLES DARWIN, *THE DESCENT OF MAN, AND SELECTION IN RELATION TO SEX* 186 (1871).

² See generally Gary L. Francione, *Animals as Property*, 2 ANIMAL L. 1 (1998) (arguing that U.S. law's treatment of nonhuman animals needs to evolve from personal property status to something resembling personhood to ensure adequate protection); David Favre, *Living Property: A New Status for Animals Within the Legal System*, 93 MARQ. L. REV. 1021 (2010) (proposing modification of traditional rules of property law to provide a distinct set of protections for animals as a unique category of property).

³ See generally Geeta Shyam, *The Legal Status of Animals: The World Rethinks its Position*, 40 ALT. L.J. 266 (2015) (discussing how animals are classified as property in Australia and how dialogue must be initiated to consider adoption of legal strategies from other countries to enhance animal protection in Australia).

⁴ Taimie L. Bryant, *Sacrificing the Sacrifice of Animals: Legal Personhood for Animals, the Status of Animals as Property, and the Presumed Primacy of Humans*, 39 RUTGERS L.J. 247, 248 (2008).

⁵ See, e.g., Karen Brulliard, *How Eggs Became a Victory for the Animal Welfare Movement*, WASH. POST, Aug. 6, 2016, <https://www.washingtonpost.com/news/animalia/wp/2016/08/06/how-eggs-became-a-victory-for-the-animal-welfare-movement-if-not-necessarily-for-hens/> (discussing how ballot measures and other public awareness campaigns helped secure victories to ensure production of cage-free eggs to promote welfare of hens in factory farms); Rachel E. Gross, *Can SeaWorld Redeem Itself?*, Slate, Apr. 14, 2016, http://www.slate.com/articles/health_and_science/science/2016/04/seaworld_s_end_to_captive_breeding_gives_it_the_chance_to_make_amends.html (discussing how public outcry in the wake of the documentary, *Blackfish*, prompted SeaWorld to discontinue its captive breeding program for orcas due to animal welfare concerns associated with using orcas for entertainment); Faith Karimi, *Ringling Bros. Elephants Perform Last Show*, CNN.COM, May 2, 2016, <http://www.cnn.com/2016/05/01/us/ringling-bros-elephants-last-show/> (discussing the discontinuation of elephants in circus performances in response to long-standing allegations of animal welfare concerns in the treatment of circus elephants).

⁶ See Jane C. Hu, *When Is an Animal a Legal Person?*, PACIFIC STANDARD, Apr. 28, 2015, <https://psmag.com/when-is-an-animal-a-legal-person-4564779bbd18>.

⁷ See Ruth Hatten, *Legal Personhood for Animals: Can It be Achieved in Australia?*, 11 AUS. ANIMAL PROTECTION L.J. 35 (2015).

“person” is generally understood to be limited to “human beings,” legal personhood is a more inclusive concept that covers all individuals or entities “who count [] for the purpose of law.”⁸ Although different in form and foundation, the U.S. and Australian Constitutions share a common silence on the recognition of rights for nonhuman animals. In the U.S., the Nonhuman Rights Project (NhRP) is seeking to establish legal personhood protections for nonhuman animals through writ of habeas corpus petitions under the common law. No similar cases have been attempted in Australia as of this writing. Nevertheless, the prospect of recognition of legal personhood for nonhuman animals in Australia is similarly ripe for consideration in Australian courts given Australia’s common law heritage and the availability of habeas corpus actions.

This article considers the legal avenues available to recognize legal personhood for nonhuman animals and addresses the procedural and substantive legal obstacles on the path to securing such protection. For example, the doctrine of standing has posed significant procedural challenges for humans seeking to assert rights on behalf of nonhuman animals because the nonhuman animals are treated as property rather than as persons under the law. Moreover, the U.S. Endangered Species Act⁹ does not include nonhuman animals in the definition of “person” for purposes of who may sue under the Act to seek recourse for failure to fulfill a procedural or substantive duty to protect a listed species. Substantively, advocates face the quandary of ascertaining which nonhuman animals deserve protection and what type of personhood protections should be afforded. The NhRP cases have focused on freedom from confinement for chimpanzees as the initial step in this process.

Section 2 of this article reviews the NhRP cases and how habeas corpus can be a valuable leverage point to secure recognition of limited legal personhood protections for nonhuman animals in the U.S. Section 3 discusses the less developed and more challenging option to rely on habeas corpus petitions for legal personhood protection for animals in Australia. Acknowledging the narrower habeas corpus opportunity for relief in Australia, it also discusses the promising opportunities to build on broad standing access and guardianship theories for enhanced protection of animals in the Australian context.

Section 4 discusses the growing movement to assign legal personhood rights to natural resources. The article proposes that to the extent that natural resources have received legal personhood protection

⁸ Jeffrey S. Kerr, et al., *A Slave by Any Other Name Is Still a Slave: The Tilikum Case and Application of the Thirteenth Amendment to Nonhuman Animals*, 19 *ANIMAL L.* 221, 225 (2013) (citing Note, *What We Talk About When We Talk About Persons*, 114 *HARV. L. REV.* 1745, 1746 (2001)).

⁹ 15 U.S.C. §§ 1531–1544 (2012).

to protect their inherent value, similar protections should be afforded to animals. This evolution will take time, however, so the article further argues that habeas corpus, standing, and guardianship theories provide valuable procedural platforms for incremental progress toward the ultimate goal of legislative recognition of legal personhood rights for nonhuman animals in both the U.S. and Australia.

2. Habeas corpus and the Nonhuman Rights Project cases

Habeas corpus as a mechanism for animal protection is a new and creative development in the law. Habeas corpus is a proceeding to obtain a court order to produce a detained person so the legality of their custody can be determined. It is one of the oldest and most important common law writs.¹⁰ Importantly, for the purposes of this article, the writ can potentially be brought on behalf of the prisoner by a third party.¹¹ This creates the prospect that the writ could be used by animal welfare groups to challenge the imprisonment of animals where it is unauthorized or contrary to law. Although not involving “prisoners” in the traditional sense, the Nonhuman Rights Project (NhRP) has relied on this legal mechanism to seek to compel the release of nonhuman animals in captivity.

In 2013, the NhRP filed three habeas corpus petitions alleging unlawful detainment of chimpanzees. In the first case, *People ex. rel. Nonhuman Rights Project, Inc. v. Lavery*,¹² the issue before the court was whether Tommy, a chimpanzee, is a “person” entitled to the rights and protections afforded by the writ of habeas corpus.¹³ The NhRP alleged that although respondents, who cared for Tommy in their home, were in compliance with state and federal statutes, the statutes themselves were inappropriate.¹⁴ The NhRP requested that the Court enlarge the common law definition of “person” in order to afford legal rights to an animal.¹⁵ The Court declined to do so and held that a chimpanzee was not a person entitled to rights afforded by writ of habeas corpus.¹⁶ It reasoned that the liberty rights protected by writ of habeas corpus have been connected with the imposition of societal obligations and

¹⁰ See, e.g., JUDITH FARBEY & R. J. SHARPE, *THE LAW OF HABEAS CORPUS* 1 (3d ed. 2011); RAYNER THWAITES, *THE LIBERTY OF NON-CITIZENS: INDEFINITE DETENTION IN COMMONWEALTH COUNTRIES* 44 (2014); Michael Lobban, *Habeas Corpus, Imperial Rendition, and the Rule of Law*, 68 *CURRENT LEGAL PROBLEMS* 27, 27–28 (2015).

¹¹ FARBEY & SHARPE, *supra* note 10, at 237.

¹² 124 A.D.3d 148 (3d Dept. 2014).

¹³ *Id.* at 149.

¹⁴ *Id.* at 150.

¹⁵ *Id.*

¹⁶ *Id.*

duties.¹⁷ Society extends rights in exchange for an implied or express agreement from its members to submit to social responsibilities.¹⁸ The Court further reasoned that unlike human beings, chimpanzees could not bear any legal duties, be held legally accountable for their actions, or submit to societal responsibilities.¹⁹ Thus, in the Court’s view, it was this incapability to bear any legal responsibilities and societal duties that rendered it inappropriate to give chimpanzees the legal rights that have been given to human beings, such as the right to liberty protected by the writ of habeas corpus.²⁰

In the second proceeding, *Nonhuman Rights Project, Inc., ex rel. Kiko v. Presti*,²¹ the NhRP filed a writ of habeas corpus proceeding on behalf of Kiko, another chimpanzee.²² The petition alleged that Kiko was illegally confined because he was kept in unsuitable conditions, and it sought to have Kiko transferred to a different facility selected by the North American Primate Sanctuary Alliance.²³ The Court concluded that Supreme Court properly dismissed the petition.²⁴ It reasoned that a habeas corpus proceeding “must be dismissed where the subject of the petition is not entitled to immediate release from custody,” and in this case, the NhRP did not seek Kiko’s immediate release, but instead sought to have Kiko placed in a different facility that the NhRP deemed more appropriate.²⁵ In addition, the Court concluded that even if it had agreed with the NhRP that Kiko should have been deemed a person, the matter was governed by “the line of cases standing for the proposition that habeas corpus does not lie where a petitioner seeks only to change the conditions of confinement rather than the confinement itself.”²⁶

In the third proceeding, *Nonhuman Rights Project, Inc. ex rel. Hercules and Leo v. Stanley*,²⁷ the NhRP sought a writ of habeas corpus for Hercules and Leo, two young adult male chimpanzees who, since November 2010, had been held at the State University of New York at Stony Brook and used as

¹⁷ *Id.* at 151.

¹⁸ *Id.*

¹⁹ *Id.*

²⁰ *Id.* at 152.

²¹ 124 A.D.3d 1334 (4th Dept. 2015).

²² *Id.* at 1334–1335.

²³ *Id.* at 1335.

²⁴ *Id.*

²⁵ *Id.* For criticism of the reasoning in the *Kiko* case, see Erica R. Tatroian, *Animals in the Law: Occupying a Space between Legal Personhood and Personal Property*, 31 J. ENVTL. L. & LITIG. 147, 156–57 (2015) (expressing concern that the lower court dismissed the case without addressing whether Kiko could be declared a legal person).

²⁶ 124 A.D.3d at 1335.

²⁷ 16 N.Y.S. 3d 898 (Sup. Ct. 2015).

research subjects in studies on the locomotion of chimpanzees and other primates.²⁸ The sole issue that the NhRP raised was whether Hercules and Leo could be legally detained at all.²⁹ NhRP offered research findings to support its assertion that chimpanzees are autonomous and self-determining beings entitled to such fundamental rights as bodily liberty and equality, and sought the issuance of a writ and a determination that Hercules and Leo were being unlawfully deprived of their liberty.³⁰

The substance of the petition required a finding as to whether a chimpanzee is a legal person entitled to bring a writ of habeas corpus.³¹ The NhRP argued that “chimpanzees should be accorded rights consonant with their abilities, and that their autonomy and self-determination merit the right to be free from illegal detention, and to that extent, the status of legal personhood.”³² The Court denied the petition for a writ of habeas corpus and dismissed the case.³³ In response to the NhRP’s assertion that the court in *Lavery*³⁴ “failed to recognize that the determination of whether a chimpanzee is a legal person is a policy question, not a biological one,”³⁵ the court held that petitioner failed to establish that common law relief in the nature of habeas corpus was appropriate and determined that the legislature was the appropriate forum for obtaining additional protections.³⁶ The Court concluded that even if it were not bound by the Third Department in *Lavery*, the issue of a chimpanzee’s right to invoke the writ of habeas corpus is best decided by the Court of Appeals, given its role in setting state policy.³⁷

While this line of NhRP cases has yet to produce a favorable outcome, the appellate division of the Supreme Court of the State of New York in Manhattan heard oral arguments in NhRP’s appeal of the

²⁸ *Id.* at 900.

²⁹ *Id.*

³⁰ *Id.* at 902. For more information on the nature of the “immunity” rights at issue in this litigation, see Steven M. Wise, *Animal Rights: One Step at a Time*, in *ANIMAL RIGHTS: CURRENT DEBATES AND NEW DIRECTIONS 27* (Cass R. Sunstein & Martha C. Nussbaum eds., 2004) (“Such immunities as freedom from slavery and torture are the most basic kind of legal rights. It’s these to which nonhuman animals, like human beings, are most strongly entitled, and immunity rights are likely to be achieved first.”).

³¹ *Id.* at 911.

³² *Id.* at 914.

³³ *Id.* at 918.

³⁴ *Supra* note 12.

³⁵ 16 N.Y.S. 3d at 916.

³⁶ *Id.* at 916–17.

³⁷ *Id.* at 917. For a proposal to advance animal protection without the need to seek legal personhood recognition for nonhumans, see Richard L. Cupp, Jr., *Focusing on Human Responsibility Rather Than Legal Personhood for Nonhuman Animals*, 33 *PACE ENVTL. L. REV.* 517, 522 (2016) (discussing problems with the NhRP lawsuits and calling for a focus on the “evolving standards of human responsibility for animals’ welfare as a means of protecting animals rather than granting legal personhood to animals”).

Lavery case on March 17, 2017,³⁸ but has yet to issue a decision as of this writing. In addition, actions have been filed in courts on similar grounds in other countries, one of which was successful in Argentina in 2016.³⁹ Several legal personhood-related legislative initiatives also have been pursued for nonhuman animals.⁴⁰

3. Theories for expanding animal personhood protection in Australia

The Australian legal system, like the U.S., has traditionally treated non-human animals as property, not persons.⁴¹ Any damage or injury caused to animals was treated as damage to property and could therefore infringe the rights of the owner, but not the animal itself.⁴² This approach continues to guide many criminal offenses dealing with injury to animals.⁴³ The Australian common law adopted the United Kingdom classification of animals as *mansuetae naturae*, meaning of tame disposition, or *ferae naturae*, meaning wild.⁴⁴ This distinction was used to determine the degrees of liability people have in tort for damage caused by animals under their control.⁴⁵

This traditional view of animals as items of property has weakened to some extent over time. Animal welfare laws now exist in all Australian states and territories.⁴⁶ These laws do not prohibit the exploitation of animals outright, but seek to limit it by proscribing especially cruel treatment.

³⁸ See *New York Court to Determine if Chimp Is Legally a Person*, USNEWS.COM, Mar. 16, 2017, <https://www.usnews.com/news/offbeat/articles/2017-03-16/ny-court-asked-to-determine-if-chimp-is-legally-a-person>.

³⁹ See Saskia Stucki, *Toward Hominid and Other Humanoid Rights: Are We Witnessing a Legal Revolution?*, VERFASSUNGSBLOG, Dec. 30, 2016, <http://verfassungsblog.de/toward-hominid-and-other-humanoid-rights-are-we-witnessing-a-legal-revolution/> (court in Argentina granted habeas corpus petition for an orangutan named Cecilia); but see Gareth Davies, *Death of 'the World's Saddest Polar Bear': Arturo, Who Prompted a Worldwide Campaign to Free Him From Argentinian Zoo After Falling Into Depression When His Partner Passed Away, Dies Two Years Later*, DAILY MAIL, July 5, 2016, <http://www.dailymail.co.uk/news/article-3675024/Death-world-s-saddest-polar-bear-Arturo-prompted-worldwide-campaign-free-Argentinian-zoo-falling-depression-partner-passed-away-dies-three-years-later.html> (attorneys' petition to relocate polar bear named Arturo from Argentinian zoo to Canada was denied).

⁴⁰ Michael Mountain, *Updates on Legal Rights for Nonhuman Animals*, EARTH IN TRANSITION, Mar. 6, 2014, <http://www.earthintransition.org/2014/03/updates-on-legal-rights-for-nonhuman-animals/> (describing proposed legislation in Romania that would recognize dolphins as "nonhuman persons").

⁴¹ See generally DEBORAH CAO, KATRINA SHARMAN & STEVEN WHITE, *ANIMAL LAW IN AUSTRALIA AND NEW ZEALAND* 63 (2010); Paula Hallam, *Dogs and Divorce: Chattels or Children?*, 17 S. CROSS U. L. REV. 97 (2015).

⁴² See, e.g., Katrina Sharman, *Farm Animals and Welfare Law: An Unhappy Union*, in *ANIMAL LAW IN AUSTRALASIA* 63 (Peter Sankoff, Steven White & Celeste Black, 2d ed. 2013).

⁴³ See, e.g., *Criminal Code 1899* (Qld) s 468.

⁴⁴ See, e.g., *Manton v Brocklebank* [1923] 1 KB 406; *Searle v Wallbank* [1947] AC 341. For discussion of the distinction in the Australian context, see John Toohey, *Liability for Straying Stock*, 7 U. W. AUSTL. L. REV. 490 (1966).

⁴⁵ See generally CAO, SHARMAN & WHITE, *supra* note 41, at 67–76.

⁴⁶ *Animal Welfare Act 1992* (ACT); *Prevention of Cruelty to Animals Act 1979* (NSW); *Animal Welfare Act 1999* (NT); *Animal Care and Protection Act 2001* (Qld); *Animal Welfare Act 1985* (SA); *Animal Welfare Act 1993* (Tas); *Prevention of Cruelty to Animals Act 1986* (Vic); *Animal Welfare Act 2002* (WA).

Furthermore, all species of animals do not receive equal application of the laws, since domestic animals receive protections not extended to work animals or animals raised for food. Farm animals are generally excluded from Australian animal welfare legislation.⁴⁷

The Australian legal system is a long way from recognizing animal personhood. Animals continue to be treated primarily as property and, at best, are afforded highly conditional guarantees against cruel treatment. Nonetheless, some potential avenues exist for expanding recognition of animal personhood under Australian law. This section explores three such possibilities, focusing on the availability of standing to raise animal interests before the courts; the prospects of using the writ of habeas corpus to protect animals against unlawful or unreasonable imprisonment or ill treatment; and the prospect of expanding existing guardianship provisions to serve as a vehicle for protecting animal interests.

Standing

The issue of standing concerns the ability of a party to demonstrate sufficient connection to or harm from a breach of law to bring the issue before a court.⁴⁸ Standing is a precondition for effectively enforcing legal rights. As the American legal theorist Wesley Newcomb Hohfeld famously observed, it is one thing to possess a claim right under the law and another thing to have the power to enforce that right.⁴⁹ In addition to enabling the enforcement of existing rights, standing can also serve as a vehicle for the recognition of new or expanded rights, because it enables courts to consider novel applications or extensions of existing rules.

Animals do not enjoy standing in their own right under Australian law because they are not recognized as legal persons. However, the prospect remains for individuals or corporate entities to bring a lawsuit in which breaches of animal rights are asserted. This depends on the individual or entity in question having standing to enforce the rights. Usually, people have standing based only where they have a personal stake in the outcome and not to protect the interests of others.⁵⁰ However, a person may have

⁴⁷ See, e.g., *Prevention of Cruelty to Animals Act 1979* (NSW) s 9; *Prevention of Cruelty to Animals Act 1986* (Vic) s 6.

⁴⁸ See, e.g., *Australian Conservation Foundation v Commonwealth* (1980) 146 CLR 493, 526–528 (Gibbs J), 538–39 (Stephen J).

⁴⁹ Wesley Newcomb Hohfeld, *Some Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 23 YALE L.J. 16 (1913); Wesley Newcomb Hohfeld, *Fundamental Legal Conceptions as Applied in Judicial Reasoning*, 26 YALE L.J. 710 (1917). For further discussion, see JONATHAN CROWE, *LEGAL THEORY* 141–51 (2d ed. 2014).

⁵⁰ *Australian Conservation Foundation v Commonwealth* (1980) 146 CLR 493, 526 (Gibbs J); *Bateman's Bay Local Aboriginal Land Council v Aboriginal Community Benefit Fund Pty Ltd* (1998) 194 CLR 247, [79] (McHugh J).

standing to enforce rights in the public interest where the interference with the public or third party right also interferes with the person's private rights or the person has a "special interest" in enforcing the right.⁵¹

Early cases on the "special interest" requirement for standing were not encouraging for animal welfare litigation. The case of *Australian Conservation Foundation v Commonwealth*⁵² concerned environmental protection litigation brought by the Australian Conservation Foundation (ACF). The ACF sued the Commonwealth and some of its Ministers to challenge the validity of a proposal by a company to establish and operate a resort and tourist area on the central Queensland coastline.⁵³ The ACF claimed that the area contained both private and public lands over which members of the public, including members of the ACF, had rights of access and use that would be damaged by the project.⁵⁴

The Commonwealth sought to dismiss the action on the ground that the ACF lacked standing.⁵⁵ The High Court by majority agreed with this argument and dismissed the claim. The Court held that, in order to have standing, the ACF must show that it has a real or substantial interest in the action above and beyond a member of the general public.⁵⁶ There is no general entitlement by members of the public to bring a lawsuit alleging a breach of public rights or duties. As Gibbs J observed, "It is quite clear that an ordinary member of the public, who has no interest other than that which any member of the public has in upholding the law, has no standing to sue to prevent the violation of a public right or to enforce the performance of a public duty."⁵⁷

Standing can only be established to enforce public rights or duties where the party has suffered a breach of their private rights or has suffered some "special damage."⁵⁸ This burden was not discharged in the case at hand. According to Gibbs J, "a person might have a special interest in the preservation of a particular environment. However, an interest, for present purposes, does not mean a mere intellectual

⁵¹ *Australian Conservation Foundation v Commonwealth* (1980) 146 CLR 493, 527-528 (Gibbs J); *Bateman's Bay Local Aboriginal Land Council v Aboriginal Community Benefit Fund Pty Ltd* (1998) 194 CLR 247, [96] (McHugh J).

⁵² (1980) 146 CLR 493.

⁵³ *Id.* at 496-97.

⁵⁴ *Id.* at 498.

⁵⁵ *Id.* at 496.

⁵⁶ *Id.* at 526 (Gibbs J), 538-539 (Stephen J).

⁵⁷ *Id.* at 526.

⁵⁸ *Id.* at 527.

or emotional concern.”⁵⁹ The ACF failed to show that its interest went beyond an intellectual or emotional attachment.

The sole dissenting judge was Murphy J, who would have granted standing based on a much more liberal standard. His Honour noted that “[i]n the United States, the fact that access and use by members of the body whose standing is challenged would be detrimentally affected by implementation of the proposals has been held to be a sufficient basis for standing.”⁶⁰ This consideration, combined with the fact that the ACF “is a well-known and reputable conservation organization”, was sufficient for Murphy J to establish standing.⁶¹ However, the other judges took a far narrower view.

The decision in *Australian Conservation Foundation v Commonwealth* had a significant chilling effect on public interest litigation in Australia. This effect extended to animal rights litigation, as can be seen from the case of *Animal Liberation v Department of Environment and Conservation*.⁶² Animal Liberation, an animal welfare organization, sought to restrain a proposed aerial shooting of wild goats and pigs on an interlocutory basis, claiming the shooting involved breaches of the *Prevention of Cruelty to Animals Act 1979* (NSW). The organization argued that acts of cruelty were likely to occur because shooting from the air carried a greater risk that animals may be wounded and die a lingering death than if they were shot from the ground.

An interlocutory injunction restraining the conduct of aerial shooting had been granted in the earlier case of *Animal Liberation v National Parks and Wildlife Service*, but in that case there was no challenge to standing.⁶³ The Supreme Court of New South Wales had granted the injunction in that case based on compelling expert evidence showing the likelihood of cruelty to animals. In *Animal Liberation v Department of Environment and Conservation*, by contrast, standing was raised as an issue,⁶⁴ which caused the application to be dismissed. Hamilton J applied the test for standing stated by Gibbs J in *Australian Conservation Foundation v Commonwealth*: “[a] private citizen who has no special interest is incapable of bringing proceedings . . . , unless, of course, he is permitted by statute to do so.”⁶⁵

⁵⁹ *Id.* at 530.

⁶⁰ *Id.* at 556.

⁶¹ *Id.* at 553–554.

⁶² [2007] NSWSC 221.

⁶³ [2003] NSWSC 457.

⁶⁴ [2007] NSWSC 221, [5].

⁶⁵ *Id.* at [5], citing (1980) 146 CLR 493, 526.

The special interest claimed by Animal Liberation was “[t]he interest of the community that animals who do not have a voice of their own should be able to be protected through the actions of concerned citizens.”⁶⁶ However, the court found this interest to be insufficient, based on Gibbs J’s observation that “a mere intellectual or emotional concern” is not enough.⁶⁷ Hamilton J also concluded that even if the applicant had standing, the evidence in this case failed to show a sufficient likelihood of cruelty to animals to justify the grant of injunctive relief.⁶⁸ The application was therefore dismissed.

The cases discussed above illustrate the difficulties arising in relation to standing to enforce animal interests under Australian law. However, the recent case of *Animals’ Angels v Secretary, Department of Agriculture*⁶⁹ paints a more positive picture and gives hope for a more flexible approach in the future. The Federal Court of Australia in that case awarded a German animal welfare group standing to seek review of executive decisions in relation to the live export trade. Standing was granted on the basis that the “government department has recognised the appellant’s particular status in the area of live animal export” and the group, although headquartered overseas, had a long history of involvement in Australia.⁷⁰

The central issue in the case was whether the Animals’ Angels association, based in Germany and operating internationally with no members residing in Australia, had a sufficient special interest in relation to the export of livestock from Australia and the regulation of that export to confer standing.⁷¹ The association argued that it was irrelevant whether it had Australian members, but it was relevant that it operated in Australia, including by investigating and lobbying, having an Australian representative, and employing Australian investigators.⁷²

The Federal Court held that the purposes of the association and its activities in Australia over eight years were sufficient to establish standing. Particular weight was based on the fact that the relevant Australian government department had recognized the association’s status in the area of live animal export.⁷³ It was accepted that the association had a sufficient presence in Australia, had been recognized

⁶⁶ *Id.* at [6].

⁶⁷ *Id.* at [6], citing (1980) 146 CLR 493, 530.

⁶⁸ *Id.* at [9].

⁶⁹ [2014] FCAFC 173.

⁷⁰ *Id.* at [119].

⁷¹ *Id.* at [111].

⁷² *Id.* at [104].

⁷³ *Id.* at [119].

in Australia by the relevant Commonwealth department, and had devoted sufficient financial resources to Australian animal welfare. The group's purposes intersected directly with the subject matter of the lawsuit, while the global nature of the group's purposes did not detract from its engagement in Australia.⁷⁴

The *Animals' Angels* case holds open the prospect that animal welfare organizations may be granted standing to enforce animal rights and interests in appropriate cases. Well established groups with a consistent track record in the issues raised by the lawsuit will be in a particularly strong position. However, as the *Animal Liberation* cases show, it will be important for the litigants to establish sufficient evidence to support their claims. Moreover, in the *Animals' Angels* case, the court placed significant emphasis on government recognition of the group in question. This raises the troubling prospect that the government, by withholding recognition of activist groups, could reduce the chances of those groups obtaining standing to challenge government actions in court.

Habeas corpus

The writ of habeas corpus, as noted previously in this article, allows unlawful detention or imprisonment to be challenged in court by requiring the production of the detained person. Habeas corpus actions on behalf of nonhuman animals have been initiated by animal rights activists in the U.S.⁷⁵ This raises the question of whether similar actions could potentially succeed in Australia. There are, however, two important barriers to the use of habeas corpus to protect animal interests under Australian law. The first is that it would have to be shown that animals are legal persons entitled to habeas corpus protections. The second is that it would have to be shown that the imprisonment of the animals in question is unlawful. Each of these conditions would be difficult to meet in Australia, given the traditional paradigm of animals as property. This paradigm implies both that animal rights to liberty are not recognized under the common law, because animals are not persons, and that restraining animals is not unlawful per se, because the animals' owners are entitled to secure their property.

⁷⁴ *Id.* at [120].

⁷⁵ For a discussion of the NhRP's cases alleging habeas corpus grounds to mandate that chimpanzees be released from confinement and placed in sanctuaries, see Section 2, *supra*.

The writ of habeas corpus has not been commonly used in Australian courts.⁷⁶ However, recent years have seen a spate of habeas corpus cases, mainly relating to claims by asylum seekers detained indefinitely without charge in Australia or offshore. This increasing use of habeas corpus was prompted in significant part by the Federal Court decision of *Ruddock v Vadarlis* (often called the *Tampa Case*).⁷⁷ The case concerned the Australian government's detainment of a Norwegian ship (the MV Tampa) carrying asylum seekers rescued at sea. The Federal Court dismissed the claim, but found that it had jurisdiction to grant an order in the nature of habeas corpus to persons detained unlawfully by the government.⁷⁸

The case concerned an incident where a Norwegian container ship, the MV Tampa, rescued 433 people from a rickety fishing boat sinking in the Indian Ocean about 140 km north of Christmas Island (an Australian territory).⁷⁹ Australian troops subsequently boarded the vessel at sea in order to prevent the rescuees from reaching Christmas Island and seeking asylum.⁸⁰ Following unsuccessful attempts to communicate with the rescuees on the ship, a solicitor and the Victorian Council for Civil Liberties filed separate proceedings against the Commonwealth and some of its Ministers seeking, among other things, orders in the nature of habeas corpus.⁸¹ The primary judge held that the rescuees were detained aboard the vessel by the government's actions without lawful authority and made orders for their release onto the Australian mainland. The government respondents appealed.⁸²

The appeal raised two main issues.⁸³ The first was whether the executive power of the Commonwealth authorized and supported the expulsion of the rescuees and their detention for that purpose. The second was whether, if there was no such executive power, the rescuees were subject to a restraint on their liberty attributable to the Commonwealth and amenable to habeas corpus. A majority of the Federal Court held that the interception of the asylum seekers was authorized by the executive power of the Commonwealth to prevent the entry of non-citizens to Australia and that this power was

⁷⁶ David Clark, *Jurisdiction and Power: Habeas Corpus and the Federal Court*, 32 MONASH U. L. REV. 275, 275 (2006).

⁷⁷ (2001) 110 FCA 1329.

⁷⁸ Beaumont J distinguished between a writ of habeas corpus and an order in the nature of habeas corpus: *id.* at [104]–[107]. The distinction has been adopted by the Federal Court in later cases: *see, e.g., Asalih* (2004) 136 FCR 29, [41]–[42]. However, some commentators have argued the distinction is unnecessary. *See, e.g., Clark, supra* note 76.

⁷⁹ (2001) 110 FCA 1329, [131].

⁸⁰ *Id.* at [136].

⁸¹ *Id.* at [96], [129].

⁸² *Id.* at [148]–[149].

⁸³ *Id.* at [162].

not extinguished by statute. The restraint was lawful, so habeas corpus was not available.⁸⁴ Black CJ dissented, concluding that the detention was unlawful and the order should be granted.⁸⁵

Importantly, the Federal Court judges were prepared to accept that an order in the nature of habeas corpus could potentially be granted to asylum seekers detained by the government if their imprisonment was not authorized by law. Furthermore, the order could be sought on the detainees' behalf by third parties. The potential application of habeas corpus to asylum seekers was tested in a series of subsequent cases in various Australian jurisdictions. The Northern Territory case of *Cox v Minister for Immigration and Multicultural and Indigenous Affairs*,⁸⁶ for example, concerned an application for habeas corpus for several asylum seekers brought after the plaintiff read about their plight in a newspaper.

The plaintiff in *Cox* was the Director of the Northern Territory Legal Aid Commission. She read in the *Northern Territory News* about a group of asylum seekers who had arrived on Melville Island and were taken into custody.⁸⁷ The Commonwealth gave evasive replies to requests for information from the plaintiff and her staff, established an exclusion zone around the island, and closed its airport.⁸⁸ On the day of the asylum seekers' arrival, a Special Gazette was published by the Commonwealth, giving effect to a regulation declaring all Northern Territory islands, including Melville Island, to be an "excised offshore place" for the purposes of section 5(1) of the *Migration Act 1958* (Cth).⁸⁹ This meant that asylum seekers arriving in those places could not validly apply for temporary protection visas.⁹⁰

The Supreme Court of the Northern Territory held that the plaintiff had standing to seek habeas corpus in respect of alleged detainees whose names she did not know, but who were apparently detained by the Commonwealth government.⁹¹ Habeas corpus lies to secure the release of those unlawfully detained.⁹² It is generally accepted that the Supreme Courts of the Australian states and territories, as superior courts of record, have inherited jurisdiction to grant such a remedy.⁹³ Nonetheless, in this case, the Supreme Court declined to hold that the detention was unlawful. This is because the asylum seekers

⁸⁴ French J further held that "habeas corpus did not lie as the rescuees were not detained," but merely prevented from entering Australia: *id.* at [206].

⁸⁵ *Id.* at [90]–[91].

⁸⁶ [2003] NTSC 111.

⁸⁷ *Id.* at [4].

⁸⁸ *Id.* at [10].

⁸⁹ *Id.* at [29].

⁹⁰ *Migration Act 1958* (Cth) s 46A(1).

⁹¹ [2003] NTSC 111, [42]–[43].

⁹² *Id.* at [43].

⁹³ Clark, *supra* note 76, at 278–79.

could not claim a right of entry to Australia and, if they were to enter the country, they would be placed in immigration detention.⁹⁴ A writ to order their release could therefore not be granted.

A related set of issues was considered by the Federal Court in *Minister for Immigration and Multicultural and Indigenous Affairs v Al Masri*.⁹⁵ The respondent, a Palestinian from the Gaza Strip, had arrived in Australia without authorization. His application for a protection visa was rejected. He then completed and signed a written request to the Minister for Immigration and Multicultural Affairs to be returned to the Gaza Strip.⁹⁶ Over a period of months, the Department of Immigration and Multicultural and Indigenous Affairs made a number of attempts to arrange for the respondent's return, but these attempts were unsuccessful. The respondent therefore remained in indefinite detention in Australia.⁹⁷

The trial judge found that although the Minister had taken all reasonable steps to remove the respondent, there was no real likelihood or prospect of the respondent's removal in the reasonably foreseeable future.⁹⁸ The trial judge concluded that the Minister's power to detain was limited to such time as the Minister needed to take all reasonable steps to secure the person's removal from Australia as soon as was reasonably practicable, but this only extended to circumstances where there was a real and reasonably foreseeable likelihood or prospect of resettlement.⁹⁹ The trial judge therefore made orders for the respondent's release. The Minister appealed from that ruling, but the decision was upheld.

The remedy granted by the Federal Court in *Al Masri* was an order in the nature of habeas corpus that the respondent be released from detention.¹⁰⁰ The High Court of Australia subsequently held in *Al Kateb v Godwin* that the detention of unauthorized immigrants in Australia until they can be removed from the country is lawful even if the detention is for an indefinite period.¹⁰¹ This reduced the frequency of lawsuits by detained immigrants seeking habeas corpus, since it became more difficult to show that their detention was unlawful. Nonetheless, these decisions show that the writ of habeas corpus or equivalent orders for release from detention remain available to the Australian courts in appropriate cases.

⁹⁴ [2003] NTSC 111, [45]–[46].

⁹⁵ [2003] FCAFC 70.

⁹⁶ *Id.* at [4]–[5].

⁹⁷ *Id.* at [7]–[9].

⁹⁸ *Id.* at [16].

⁹⁹ *Id.* at [11].

¹⁰⁰ *Id.* at [170].

¹⁰¹ (2004) 219 CLR 562.

It is unlikely, though not impossible, that habeas corpus could be used in Australia on behalf of animals detained unlawfully or inhumanely. However, those seeking such orders on behalf of asylum seekers have often faced difficulties in showing that the detention is unauthorized. Animals, like asylum seekers, are likely to face difficulties in accessing remedies for detention due to their marginal status in the Australian legal system. Nonetheless, an animal who was detained under conditions that breached animal welfare legislation could potentially be the subject of an application alleging unlawful detention. It would then be a matter for the court as to whether habeas corpus or an equivalent order could be an appropriate remedy, given that traditionally animals have not been regarded as legal persons.

Guardianship

A third potential avenue for expanding animal personhood under Australian law concerns the potential use of guardianship arrangements to designate particular humans as responsible for safeguarding animal welfare or advocating animal interests. This could take the form of provisions placing positive duties on custodians of animals to ensure their welfare, supported by appropriate remedies. A model for this kind of approach exists in the Australian state of Queensland in section 17 of the *Animal Care and Protection Act 2001* (Qld).¹⁰² The provision states that a person in charge of an animal owes a duty of care to provide basic welfare needs.¹⁰³ Breaches can be investigated by animal welfare inspectors or the police.¹⁰⁴

Section 17(2) of the *Animal Care and Protection Act* makes it an offense for a person in charge of an animal not to fulfil their duty of care by providing for its basic welfare needs. This duty of care includes providing the animal with suitable living conditions, sufficient water and food, as well as treatment for injury or disease. It also includes handling the animal appropriately and allowing it to engage in normal behaviour.¹⁰⁵ Importantly, no mens rea is required for breach of duty; thus, negligent breaches can constitute an offense.¹⁰⁶ The focus is on the animal's welfare rather than the intentions or actions of the custodian.¹⁰⁷

¹⁰² A similar, but less detailed, provision appears in the *Animal Welfare Act 1993* (Tas) s 6.

¹⁰³ *Animal Care and Protection Act 2001* (Qld) s 17(1).

¹⁰⁴ *Id.* s 115.

¹⁰⁵ *Id.* s 17(3).

¹⁰⁶ *Id.*

¹⁰⁷ For further discussion, see George Seymour, *Animals and the Law: Towards a Guardianship Model*, 29 *ALT. L. J.* 183, 186–87 (2004).

The guardianship model of the *Animal Care and Protection Act* goes one step further than standard animal cruelty laws by designating particular people as responsible for ensuring animal welfare. It puts the custodians of animals on notice of their positive responsibilities and puts in place mechanisms for holding them accountable. This model offers one way of holding humans answerable for how animals are treated. However, it falls well short of acknowledging animals as persons in their own right. Much also depends on how robustly the legislation is enforced by inspectors, police, and courts. The enforcement record of the Queensland law appears mixed. Although several cases have been prosecuted, the courts have not imposed maximum penalties even for very serious breaches.¹⁰⁸

Another form of guardianship might involve appointing humans to advocate for animals in court and other processes. There is no direct precedent for this approach to animal welfare in Australia, but examples can be drawn from other fields involving vulnerable groups. The *Family Law Act 1975* (Cth), for example, allows for a lawyer to be appointed to represent children's interests in parenting and other matters.¹⁰⁹ This provides a practical way of promoting the focus of Australian family law on the best interests of the child.¹¹⁰ Public guardians also have general powers to advocate for impaired adults and children in state care.¹¹¹

A possible application of this model to animals might involve appointing a public animal guardian with responsibility for promoting the best interests of animals through advocacy and litigation.¹¹² Provisions could be put in place to ensure that the animal guardian has standing to appear in court on behalf of animals and seek remedies including, if appropriate, orders in the nature of habeas corpus. The effectiveness of such a body would evidently depend on the powers it is given and the strength of the legal limits on cruelty to animals and positive guarantees of animal welfare and dignity contained in supporting legislation.

¹⁰⁸ *Id.* at 187.

¹⁰⁹ *Family Law Act 1975* (Cth) s 68L.

¹¹⁰ *See, e.g., id.* ss 60CA, 65AA. For critical discussion, see Jonathan Crowe & Lisa Toohey, *From Good Intentions to Ethical Outcomes: The Paramountcy of Children's Interests in the Family Law Act*, 33 MELB. U. L. REV. 391 (2009).

¹¹¹ *See, e.g., Guardianship Act 1987* (NSW); *Public Guardian Act 2014* (Qld). Similarly, U.S. courts recognize that the best interests of children in custody disputes can be asserted by a guardian ad litem who is appointed to assert the best interests of the child in the proceeding. Such guardians also could be appointed to help overcome standing barriers and represent the interests of nonhuman animals in litigation after personhood rights for nonhuman animals have been established. *See generally* Joanna Wymyslo, *Standing for Endangered Species: Justiciability Beyond Humanity*, 15 U. BALT. J. ENVTL. L. 45 (2007).

¹¹² A precedent for this approach can be found in Zurich, which appointed a specialist animal advocate from 1991 until 2010. *See* Vanessa Gerritsen, *Animal Welfare in Switzerland: Constitutional Aim, Social Commitment, and a Major Challenge*, 1 GLOBAL J. ANIMAL L. 1, 13–14 (2013).

The various options discussed above all offer some promise in counteracting the vulnerability of animals to human exploitation. Animals are made vulnerable by the fact that they cannot advocate politically or legally on their own behalf. They rely on others to advocate for them. Mechanisms such as standing, habeas corpus, and guardianship models are therefore essential in enabling practical protection of animal rights and interests. None of these avenues is sufficient on its own, but when combined they hold significant promise in giving animals a voice and ensuring that those with control over them can be held legally accountable.

4. Natural resources as a platform for animal legal personhood

The strategies discussed in Sections 2 and 3 of this article for enhanced protection of nonhuman animals in the U.S. and Australia are effective leverage points that will lead to future gains in the development of animal law in both countries. However, the approaches discussed above are merely procedural strategies that can produce incremental gains at best. Scholars have offered compelling arguments drawing on science, moral philosophy, and law to support the assignment of personhood protections and rights for nonhuman animals.¹¹³ But these arguments are most compelling when considered in light of pre-existing legal personhood protections for entities in “the community of the voiceless,” especially natural resources.¹¹⁴

¹¹³ For an excellent discussion of arguments based on science, morality, and law to support conferring fundamental rights to primates, see generally Raffael N. Fasel et al, *Fundamental Rights for Primates*, *Sentience Politics Policy Paper*, May 2016, <https://sentience-politics.org/files/2016-05-v1-Fundamental-Rights-for-Primates-EN.pdf>; Steven M. Wise, *Animal Rights: One Step at a Time*, in *ANIMAL RIGHTS: CURRENT DEBATES AND NEW DIRECTIONS* 19-50 (Cass R. Sunstein & Martha C. Nussbaum eds., 2004).

¹¹⁴ “The community of the voiceless” refers to subjects of legal personhood protection that cannot assert and vindicate their interests without legal personhood recognition and “guardians” to act on their behalf. Categories within the community of the voiceless for purposes of this article include natural resources, future generations, and artificial intelligence. Future generations and artificial intelligence, like natural resources, have been afforded or considered for legal personhood protections. These categories can support the extension of legal personhood to nonhuman animals, but they are not as compelling as the analogy to natural resources and, therefore, are beyond the scope of this article. For a discussion of the rights of future generations, see *Legality of the Threat or Use of Nuclear Weapons*, Advisory Opinion, 1996 I.C.J. 226, 455 (July 8) (dissenting opinion of Judge Weeramantry) (noting that the ICJ, “as the principal judicial organ of the United Nations, empowered to state and apply international law with an authority matched by no other tribunal, must, in its jurisprudence, pay due recognition to the *rights* of future generations.”) (emphasis added); *Declaration on the Responsibilities of Present Generations Towards Future Generations*, General Conference of the United Nations Educational, Scientific, and Cultural Organization, Oct. 21 to Nov. 12, 1997, art. 1 (1997) (noting that the present generation must ensure that “the needs and interests of present and future generations are fully safeguarded”). For a discussion of rights of artificial intelligence, see European Parliament, Committee on Legal Affairs, Draft Report with Recommendations to the Commission on Civil Law Rules on Robotics, 2015/2013 (INL), May 31, 2016, <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//NONSGML%2BCOMPARL%2BPE-582.443%2B01%2BDOC%2BPDF%2BV0//EN> (addressing European

This section of the article offers a simple proposition to advance the assignment of legal personhood rights for nonhuman animals: to the extent that natural resources have been afforded legal personhood status, then nonhuman animals—many of which are sentient and experience emotions like humans—should be similarly entitled to such protections.¹¹⁵ It focuses on various physical and legal contexts in which legal personhood rights have been recognized or proposed for natural resources in five countries: the U.S., Australia, New Zealand, India, and Ecuador. The article will conclude by responding to criticisms of the legal personhood recognition efforts for nonhuman animals.

In the U.S., legal personhood protection for natural resources has occurred at the local level. In June 2014, elected officials in Grant Township, Pennsylvania passed a “Community Bill of Rights Ordinance,” which incorporated the “Rights of Nature.”¹¹⁶ In part, it allowed the township to “bring [legal] action in the name of [an] ecosystem,”¹¹⁷ which confers a kind of “personhood” to the ecosystem for the purposes of litigation.¹¹⁸ The Pennsylvania General Energy Company (PGE) responded by filing a federal lawsuit¹¹⁹ claiming that the town’s prohibition of an underground injection industrial waste site amounted to an “impermissible exercise of police power.”¹²⁰ The Little Mahoning Creek filed a motion to intervene, claiming the environment has a “major stake in the case” and is “entitled to legal standing

Parliament’s proposal to draft regulations governing the use and creation of robots and artificial intelligence, including a form of “electronic personhood” to ensure rights and responsibilities for the most capable forms of artificial intelligence); Lawrence B. Solum, *Legal Personhood for Artificial Intelligences*, 70 N.C. L. REV. 1231, 1284 (1992) (noting that artificial intelligence research “might give us insight into the claim that groups have rights that are not reducible to those of individuals.”).

¹¹⁵ Another point of comparison between nonhuman animals and natural resources that supports similar legal personhood protections is that both lack the ability to protect themselves under the law and both areas of the law are moving toward intrinsic value recognition—the notion that natural resources and nonhuman animals have value in their own right regardless of human will to appropriate them for a particular purpose. *See generally* Joan E. Schaffner, *Valuing Nature in Environmental Law: Lessons for Animal Law and the Valuation of Animals*, in *WHAT CAN ANIMAL LAW LEARN FROM ENVIRONMENTAL LAW?* 243–65 (Randall S. Abate ed., 2015).

¹¹⁶ “Rights of nature” were first proposed by Christopher D. Stone in his article, *Should Trees Have Standing? Toward Legal Rights for Natural Objects*, 45 S. CAL. L. REV. 450 (1972) (arguing that nature should have standing through the use of existing guardianship laws to enable nature to have redress for harms done to it); *see also* Hope M. Babcock, *A Brook with Legal Rights: The Rights of Nature in Court*, 43 *ECOLOGY L.Q.* 1 (2016); Mihnea Tanasescu, *The Rights of Nature: Theory and Practice*, in *POLITICAL ANIMALS AND ANIMAL POLITICS* 150–163 (Marcel Wissenburg & David Schlosberg eds., 2014) (discussing the Little Mahoning Watershed case and the Ecuadorian Constitution as examples of rights of nature contexts).

¹¹⁷ *See* Melissa Troutman, *Pennsylvania Ecosystem Fights Corporation for Rights in Landmark Fracking Lawsuit*, *PUBLIC HERALD*, Dec. 10, 2014, <http://publicherald.org/grant-township-speaks-for-the-trees-in-landmark-fracking-lawsuit/>.

¹¹⁸ *Id.*

¹¹⁹ *Pennsylvania General Energy Co, LLC v. Grant Twp.*, C.A. No. 14-209ERIE, (W.D. Pa., Oct. 14, 2015), <http://cases.justia.com/federal/district-courts/pennsylvania/pawdce/1:2014cv00209/217973/113/0.pdf?ts=1444922832>.

¹²⁰ *Id.*; *see also* Grant Township, Indiana County, Pennsylvania Community Bill of Rights Ordinance, Section 2(b) Right to Clean Air, Water and Soil (“All residents of Grant Township, along with natural communities and ecosystems within the Township, possess the right to clean air, water, and soil, which shall include the right to be free from activities which may pose potential risks to clean air, water, and soil within the Township, including the depositing of waste from oil and gas extraction.”).

independent of the township.”¹²¹ This case marks the first time in the United States that an ecosystem has attempted to defend itself in a lawsuit.¹²²

Although Pennsylvania’s state constitution already guarantees the rights to “clean air, pure water, and to the preservation of the natural, scenic, historic and esthetic value of the environment,” those rights are granted to people, and not to the environment itself.¹²³ PGE opposed the motion to intervene by attacking the validity of the Watershed’s status as a person.¹²⁴ In its decision, the Court declined to address the issue of the Watershed’s standing.¹²⁵ Relying instead on the presumption of adequacy of representation by the defendant, the Court found that the Defendant Township and the Watershed’s interests aligned precisely.¹²⁶ Therefore, intervention by the Watershed was not necessary to ensure that its rights were adequately protected.¹²⁷ The United States Court of Appeals for the Third Circuit agreed and upheld the decision.¹²⁸

Unlike the U.S., legal personhood recognition for natural resources occurred at the national level in New Zealand. On March 15, 2017, the New Zealand parliament granted legal personhood to the Whanganui River that recognized it as a living entity, ending a 170-year battle for this recognition.¹²⁹ In 2011, under a Treaty called “The Record of Understanding in Relation to Whanganui River Settlement,”

¹²¹ Ellen M. Gilmer, *Speaking for the Trees, Lawyer Pushes Unconventional Doctrine*, ENERGYWIRE, Jan. 7, 2015, <http://www.eenews.net/stories/1060011209>.

¹²² Although this is the first case in the U.S. where an ecosystem is named as a defendant, it is not the first time a local ordinance recognizes the rights of nature. That distinction goes to the Tamaqua Borough of Pennsylvania whose town council passed the first ordinance in the world declaring the rights of “natural communities.” Jason Mark, *From Rural Pennsylvania to South America, a Global Alliance is Promoting the Idea that Ecosystems Have Intrinsic Rights*, EARTH ISLAND J. (2012), http://www.earthisland.org/journal/index.php/eij/article/natural_law/.

¹²³ Troutman, *supra* note 117.

¹²⁴ *See* Gilmer, *supra* note 121.

¹²⁵ The “presumption of adequacy of representation,” is a legal bar that an intervening party must meet in order to be allowed standing in a case. Here, the court determined that the Township’s representation in the case would protect Little Mahoning Creek’s interest because both parties sought the same relief. *Pennsylvania General Energy Co., LLC, v. Grant Twp., C.A. No. 14-209ERIE*, (W.D. Pa. Oct.14, 2015), *supra* note 119.

¹²⁶ *Id.*

¹²⁷ *Id.*

¹²⁸ *Pennsylvania General Energy Co., LLC v. Grant Twp., C.A. No. 14-209ERIE* (3d Cir. July 27, 2016), <http://cases.justia.com/federal/district-courts/pennsylvania/pawdce/1:2014cv00209/217973/222/0.pdf?ts=1475356734> (“The plain language of Rule 17 does not permit an ecosystem such as the Little Mahoning Watershed to sue anyone or be sued by anyone, and for that reason alone we have misgivings with the Watershed being listed as a party in this litigation. But, because this particular issue was not pursued on appeal, and given the nonprecedential nature of this opinion, we make no specific holding on the question.”).

¹²⁹ *New Zealand’s Whanganui River Granted Legal Status as a Person After 170-Year Battle*, ABC.NET, Mar. 15, 2017, <http://www.abc.net.au/news/2017-03-16/nz-whanganui-river-gets-legal-status-as-person-after-170-years/8358434>.

the Whanganui River was recognized as “a single indivisible and living entity.”¹³⁰ The stated goal of the treaty is “to promote the health of the Whanganui River and its ecosystem.”¹³¹ Recognizing the “inextricable relationship” of the Whanganui Iwi people with the river was crucial to granting the river rights.¹³² Equally important was the Whanganui Iwi concept of “Te Awa Tupua” or perceiving the river as “an integrated, living, whole.”¹³³ The agreement was signed in 2012 between the Crown and the Whanganui River Iwi, who are the local Maori, Indigenous people.¹³⁴

Two “guardians” have been appointed to protect the river’s rights and interests: one by the Iwi, and one by the Crown.¹³⁵ Given that the guardians must protect the “indigenous property value associated with the river,” they must do more than promote the physical and ecological rights of the Whanganui – they must also promote the river’s spiritual and cultural rights.¹³⁶

A mere four days after the groundbreaking development in New Zealand, India responded with legal personhood rights for natural resources in its country. Like New Zealand, India also was struggling to win a long battle to protect cherished rivers, which have similarly deep cultural and spiritual value for the people of India. On March 20, 2017, the high court in the North Indian state of Uttarakhand ruled that both the Ganges and Yunama Rivers have legal personhood rights.¹³⁷ More ambitious still, just

¹³⁰ Zachary Dorn, *Recognizing Ecosystems as People Promotes Sustainability: Quasi-Sovereignty as a Tool for Promoting Sustainability*, Sustainability Law at Lewis & Clark Law School (Nov. 26, 2012), <http://sustainabilityandlaw.com/2012/11/26/recognizing-ecosystems-as-people-promotes-sustainability-quasi-sovereignty-as-a-tool-for-promoting-sustainability-by-zachery-dorn/> (noting that recognition was largely based on the relationship between the Whanganui Iwi people, who have a tradition of living near the river).

¹³¹ *Id.*

¹³² Stephen Messenger, *New Zealand Grants a River the Rights of Personhood*, TREEHUGGER, Sept. 6, 2012, <http://www.treehugger.com/environmental-policy/river-new-zealand-granted-legal-rights-person.html>.

¹³³ *Id.*

¹³⁴ Sandra Postel, *A River in New Zealand Gets a Legal Voice*, NAT’L GEOGRAPHIC, Sept. 4, 2012, <http://voices.nationalgeographic.com/2012/09/04/a-river-in-new-zealand-gets-a-legal-voice/>.

¹³⁵ Eleanor Ainge Roy, *New Zealand River Granted Same Legal Rights as Human Being*, THE GUARDIAN, Mar. 16, 2017, <https://www.theguardian.com/world/2017/mar/16/new-zealand-river-granted-same-legal-rights-as-human-being>.

¹³⁶ Brendan Kennedy, *I am the River and the River is Me: The Implications of a River Receiving Personhood Status*, CULTURAL SURVIVAL, Dec. 2012, <https://www.culturalsurvival.org/publications/cultural-survival-quarterly/i-am-river-and-river-me-implications-river-receiving>. One Maori elder, Niko Tangaroa, spoke of the interdependent relationship Indigenous people have with the Whanganui: “The river and the land and its people are inseparable. As so if one is affected the other is affected also. The river is the heartbeat, the pulse of our people [If the river] dies, we die as a people.” *Id.*

¹³⁷ Shyam Krishnakumar, *Could Making the Ganges a ‘Person’ Save India’s Holiest River?*, BBC.COM, Apr. 5, 2017, <http://www.bbc.com/news/world-asia-india-39488527>; see generally Salim v. State of Uttarakhand, No. 126 of 2014, High Court of Uttarakhand, Mar. 20, 2017, <http://lobis.nic.in/ddir/uhc/RS/orders/22-03-2017/RS20032017WPPIL1262014.pdf>. In rendering its decision, the court referenced the legislative victory protecting the Whanganui River in New Zealand as a source of inspiration. Vikram Doctor, *River Sutra: Being Human in Legal Parlance*, THE ECONOMIC TIMES, Mar. 25, 2017, <http://epaperbeta.timesofindia.com/Article.aspx?eid=31818&articlexml=River-Sutra-Being-Human-in-Legal-Parlance-25032017001084>.

weeks later, the same court also granted legal personhood status to the glaciers that are the source of these rivers to help enhance the protection of these rivers.¹³⁸ The court ordered the government to form a “Ganges Administration Board” and criticized the national and Uttarakhand state governments for inadequate efforts to protect the river.¹³⁹ Important questions remain in the wake of this landmark ruling, however, such as the scope of the enforceability of the order beyond the state of Uttarakhand and what types of interference with the free flow of the river will be considered “harm” to trigger an enforcement action.¹⁴⁰

Like New Zealand and India, legal personhood for natural resources also has occurred at the national level in Ecuador. Unlike New Zealand and India, however, Ecuador’s protections have been enshrined in its Constitution. National constitutions have become a common and powerful means to address environmental protection, including protecting rights of nature.¹⁴¹ In response to the crises of the oil and mining corporations, Ecuador became the first country in the world in 2008 to recognize rights of its mountains, rivers, and land.¹⁴² Ecuador’s Constitution was rewritten to include a “Rights of Nature” framework to reflect these changes, and to give humans the ability to sue on behalf of nature.¹⁴³ Included in the new document was Chapter Seven, titled Rights of Nature, which contains four Articles legitimizing, protecting, and enforcing those rights.¹⁴⁴

The law faced its first legal test in 2011, when suit was brought against a local government which had allowed debris from a road expansion to enter the watershed and cause extensive flooding.¹⁴⁵ In a six-page opinion, the Ecuadorian Court “wholehearted[ly] embrace[d] the right of nature.”¹⁴⁶ Furthermore, the Court recognized that “injuries to Nature are generational damages whose repercussions

¹³⁸ David Iaconangelo, *A High Court in India Took Drastic Measures to Protect 2 Vanishing Glaciers*, BUSINESS INSIDER, Apr. 7, 2017, <http://www.businessinsider.com/rights-of-nature-movement-india-glacier-2017-4>.

¹³⁹ *After New Zealand, India’s Ganges Gains Legal Status of a Person*, DHAKA TRIBUNE, Mar. 20, 2017, <http://www.dhakatribune.com/world/south-asia/2017/03/20/new-zeland-indias-ganga-gains-legal-status-person/>.

¹⁴⁰ Krishnakumar, *supra* note 137.

¹⁴¹ For helpful background discussion of these developments, see generally DINAH SHELTON, *NATURE AS A LEGAL PERSON* (2014) (discussing how constitutional provisions are beginning to give rise to enforcement litigation based on the legal personality of nature and how various countries recognize nature as a legal person); JAMES R. MAY & ERIN DALY, *GLOBAL ENVIRONMENTAL CONSTITUTIONALISM* (2015).

¹⁴² *Constitution of the Republic of Ecuador*, POLITICAL DATABASE OF THE AMERICAS, Jan. 31, 2011, <http://pdba.georgetown.edu/Constitutions/Ecuador/english08.html>.

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ Erin Daly, *Ecuadorian Court Recognizes Constitutional Right to Nature*, WIDENER ENVIRONMENTAL LAW CENTER, July 12, 2011, <http://blogs.law.widener.edu/envirolawblog/2011/07/12/ecuadorian-court-recognizes-constitutional-right-to-nature/>.

¹⁴⁶ *Id.*

will impact future generations.”¹⁴⁷ The Court also addressed the issue of standing, where the plaintiffs were asserting not their rights but those of Nature, by relaxing traditional formalities.¹⁴⁸ The Court further ruled that environmental damages should be based on probability and possibility, rather than certainty.¹⁴⁹ Lastly, the Court ruled that the burden lies with the defendant to show a lack of damages, reversing the traditional burden on the plaintiff to show an injury in fact.¹⁵⁰ The Court also concluded that in any “conflict of constitutional right,” Nature’s rights would supersede the defendant’s right “because a healthy environment is more important and affects more people.”¹⁵¹

All of the abovementioned legal personhood protections for natural resources are groundbreaking and are spreading rapidly throughout the world. These developments provide a potentially valuable foothold to secure similar substantive protections for nonhuman animals in the U.S. and Australia.¹⁵² In the U.S., constitutional environmentalism is starting to take hold, as reflected in the pending atmospheric trust litigation in federal district court in the *Juliana* case.¹⁵³ If successful, this litigation could send a mandate to Congress to regulate climate change, a mandate that the executive and legislative branches failed to deliver. The *Juliana* litigation underscores the powerful role of the courts in interpreting the law, as is similarly evident in the legal personhood for natural resources developments in Ecuador and India. In Australia, recent efforts to seek legal personhood for the Great Barrier Reef to protect it from

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

¹⁵⁰ *Id.*

¹⁵¹ *Id.* See also Erin Daly, *Ecuadorian Exemplar: The First Ever Vindications of Constitutional Rights*, 21 REV. OF EUROPEAN COMMUNITY & INT’L ENVTL. L. 63-66 (2012) (discussing the *Wheeler c. Director de la Procuraduria General Del Estado de Loja* filed against the local government in the southern region of Vilcabamba, which was the first case in history to vindicate the Ecuadoran “rights of nature” constitutional provisions).

¹⁵² The movement to assign legal personhood rights for nature has its critics, however. See, e.g., Andrew Travis, *New Zealand: Rivers Are People, Too*, THE DAILY SIGNAL, Oct. 25, 2012, <http://dailysignal.com/2012/10/25/new-zealand-rivers-are-people-too/> (“[e]xercising the rights of personhood to nature does nothing more than strip personhood of any real meaning and make a mockery of the concept of rights. If we want to protect the environment for the long term, stewardship, not personhood, is the wisest path.”).

¹⁵³ For a description of the context of the *Juliana v. Trump* case, see generally *The 11-Year-Old Suing Trump Over Climate Change*, THE ATLANTIC, Feb. 9, 2017, <https://www.theatlantic.com/science/archive/2017/02/trump-climate-lawsuit/516054/>. For a discussion of the legal and conceptual foundations of atmospheric trust litigation in the U.S., see generally Randall S. Abate, *Atmospheric Trust Litigation in the United States: Pipe Dream or Pipeline to Justice for Future Generations?*, in CLIMATE JUSTICE: CASE STUDIES IN GLOBAL AND REGIONAL GOVERNANCE CHALLENGES 543-69 (Randall S. Abate ed., 2016).

further decimation from ocean acidification provides a potential platform for subsequent legislative recognition of legal personhood for nonhuman animals.¹⁵⁴

In assessing the opportunity to build on these developments in the natural resources context and apply these protections to nonhuman animals, this article concludes by addressing arguments that oppose extending legal personhood protections to nonhuman animals. The first argument opposing the extension of legal personhood protections to nonhuman animals is that animals lack the ability to fulfill responsibilities in society in addition to enjoying the protection of legal personhood rights. This argument is not compelling because it applies equally to all categories of entities in the community of the voiceless and should not artificially exclude nonhuman animals. The human duty of stewardship applies equally to natural resources and animals as critical components of our ecosystem and as entities that hold deep cultural, spiritual, and emotional value in our lives.¹⁵⁵

A second criticism of assigning legal personhood protections to nonhuman animals is that nonhuman animals would require representation in court by guardians and that this need could pose a challenge to judicial economy by opening the floodgates of litigation.¹⁵⁶ However, there is widespread precedent for such guardianship roles, such as the use of court-appointed guardians to represent the interests of children in family law disputes in the U.S. and Australia.¹⁵⁷

Richard Cupp, Jr. advocates for “stewardship” as a less radical alternative to fully fledged personhood protections for nonhuman animals.¹⁵⁸ However, this argument is misplaced because stewardship and legal personhood should work together in advancing the protection of nonhuman animals and are not mutually exclusive.¹⁵⁹ Relying exclusively on stewardship as a model to protect nonhuman animals would provide too much discretion to humans to be motivated by the requisite political will to provide adequate legal protections to the voiceless. Cupp’s argument further suggests

¹⁵⁴ See generally Friends of the Earth Australia, *Legal Personality for Great Barrier Reef*, Mar. 2013, <http://www.foe.org.au/legal-personality-great-barrier-reef> (referencing legal personhood developments for natural resources in New Zealand as a potential platform for similar protections for the Great Barrier Reef).

¹⁵⁵ For further criticism of the argument that nonhuman animals should not be afforded legal protections because they lack corresponding responsibilities, see Jonathan Crowe, *Levinasian Ethics and Animal Rights*, 26 WINDSOR YB. OF ACCESS TO JUSTICE 313 (2008).

¹⁵⁶ Babcock, *supra* note 116, at 45, 49.

¹⁵⁷ See Part II, *supra*.

¹⁵⁸ See generally Richard L. Cupp, Jr., *Human Responsibility, Not Legal Personhood, For Nonhuman Animals*, 16 ENGAGE 29 (2015).

¹⁵⁹ See, e.g., Andrew Jensen Kerr, *Writing about Nonpersons*, 164 U. PA. L. REV. ONLINE 77, 85 (2016) (arguing that Congress should confer standing to animals in certain contexts and that humans should be able to stand in for animals).

that autonomy is a necessary condition for assertion of legal rights. If this claim were true, then mentally disabled persons, persons in a coma, and fetuses would not be eligible to benefit from the protection of legal rights because they lack the independent capacity to assert such rights.¹⁶⁰

5. Conclusion

This article has surveyed a number of possible avenues for protecting nonhuman animals under U.S. and Australian law, including habeas corpus petitions, principles of standing, and guardianship models. Like standing and guardianship, the NhRP's habeas corpus proceedings—and those that may follow in Australia seeking to compel the release of nonhuman animals in captivity—are merely procedural leverage points to promote legal personhood protections for nonhuman animals. To be most effective, these legal personhood protections should be instituted legislatively at the national or subnational levels in the U.S. and Australia, similar to the recent developments in New Zealand, India, and Ecuador for natural resources.¹⁶¹ Perhaps most tellingly, New Zealand—one of the pioneers of legal personhood rights for natural resources—also recently declared animals as sentient beings.¹⁶²

There is a growing international movement to assign legal personhood rights to natural resources. Strong principled reasons exist for extending similar protections to nonhuman animals. Indeed, animals would seem to be more clearly deserving of such protections than the natural environment, given their sentience and capacity for suffering. The main arguments against extending such protection to nonhuman animals are not compelling and, in any case, apply equally to other entities in the community of the voiceless. Nonetheless, until animals are afforded full legal personhood, more incremental protections continue to be needed. Habeas corpus, standing, and guardianship models provide promising foundations for such incremental legal recognition in both the U.S. and Australia.

¹⁶⁰ For further discussion, see Crowe, *supra* note 155.

¹⁶¹ In the past two years, legislative initiatives of this nature have already been implemented in several countries to enshrine varying degrees on legal personhood in nonhuman animals. For example, France amended its Civil Code to recognize animals as “living sentient beings” as opposed to the mere property of its owner, *Animals in France Finally Recognized as ‘Living, Sentient Beings,’* RT, Nov. 11, 2015, <https://www.rt.com/news/227431-animals-sentient-furniture-parliament/>, and Spain passed landmark legislation to confer human rights on great apes; Lee Glendinning, *Spanish Parliament Approves ‘Human Rights’ for Apes*, THE GUARDIAN, Nov. 4, 2015, <http://www.theguardian.com/world/2008/jun/26/humanrights.animalwelfare>.

¹⁶² Sophie McIntyre, *Animals Are Now Legally Recognised as ‘Sentient’ Beings in New Zealand*, INDEPENDENT, Nov. 11, 2015, <http://www.independent.co.uk/news/world/australasia/animals-are-now-legally-recognised-as-sentient-beings-in-new-zealand-10256006.html>.

THE BOYD GROUP AND ANIMAL EXPERIMENTATION

A Case Study of Deliberation

by Robert Garner*

Abstract

This article is an account of the work of the Boyd Group, an informal grouping of stakeholders on both sides of the debate about animal experimentation formed in Britain in the early 1990s. It is an explorative case study which aims to map the opinion-forming processes of the participants of the Boyd Group, many of whom were interviewed by the author, in light of deliberative theory and with the intention of generating suggestions for improved democratic practices in representative bodies split by seemingly intractable moral differences. Not only is animal experimentation a policy issue involving acute moral conflict, but the Boyd Group is also a body made up of partisans representing organisations on both sides of the debate. Not surprisingly, the transformation of views predicted by some deliberative theorists has not occurred. However, deliberation within the Boyd Group has had the effect of softening some of the views and attitudes of the participants, has facilitated some compromises and provides a useful guide to the methods available to those wishing to manage moral conflict.

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1. Introduction

This article consists of a case study of the Boyd Group (hereinafter BG), an informal grouping of stakeholders on both sides of the debate about animal experimentation formed in Britain in the early 1990s. Specific circumstances led to this formation, and not least the acute social and political controversy surrounding the use of animals in the laboratory. Two decades later, the BG still meets intermittently, and its purpose – to provide a deliberative forum whereby those with diametrically opposed views on the issue can try to narrow the differences between them – is still as valuable as ever given the capacity the use of animals for research still has to elicit conflict and controversy.

This piece, then, is an explorative case study which aims to map the opinion-forming processes of the participants of the BG. The theoretical context is provided by the ‘deliberative turn’ in democratic theory which has produced an enormous literature since the early 1990s. The intention of the article is to use the example of the BG to generate suggestions for improved democratic practices in representative bodies split by seemingly intractable moral differences. The use of animals for research purposes is an issue which elicits strong emotions, and would appear to involve intractable moral conflicts. This is often portrayed, in its starkest form, as the choice between sparing an animal from suffering or saving the life of a child. In terms of the BG, not only are these apparently stark moral dilemmas the subject of debate, but those meeting to try to resolve them are not interested lay members of the public, but are mostly partisans, many working for organisations with a vested interest in the outcome. If deliberation has helped in the case of the BG to reduce, amongst the participants, the distance between the strongly held and polarised views in the debate, then it shows the value of deliberation. In short, it is tempting to say that if deliberation works for animal experimentation in the context provided by the BG, it will work for any issue.

After outlining the major themes of the deliberative democracy literature, this article seeks to define what kind of deliberative forum the BG is. Questions relating to inclusivity, the characteristics of participants and the relationship between participants and their organisations, are important indicators of the kind of forum the BG is and therefore the degree to which it qualifies as a genuinely deliberative arena. Following this, it will be asked how far genuine deliberation has taken place within the BG. For example, how far has self-interest been put to one side during the proceeds? How far have all sides of the debate been given a fair hearing? Has there been mutual respect for the positions being aired? Has it

helped to bring the two sides in the animal experimentation debate closer together? To what extent has it created an 'economy of moral disagreement' in Gutmann and Thompson's words? (1996: 3)

The research undertaken for this article included, initially, a comprehensive review of the literature on deliberative democracy. On the BG, a series (21 in all) of open-ended interviews with most of the major participants, in addition to some who chose not to participate, were conducted in 2014. Some of the interviews were conducted in person, others by alternative means such as e-mail communication, telephone conversations and Skype. A number of the interviewees requested anonymity and this, of course, has been honoured. In addition to the interviews, extensive use was made of the reports of meetings available on the BG website, a series of revealing letters between Andrew Tyler (Director of Animal Aid, a leading animal rights organisation) and Colin Blakemore, one of the founders of the BG (Tyler kindly provided access to these letters), and the transcript of the oral evidence given to a House of Lords Select Committee on animal experimentation which involved many of the participants in BG meetings (House of Lords, 2002).

2. Deliberation and democracy

Democratic theory has, according to Bohman's much-used phrase, taken a 'deliberative turn' since the beginning of the 1990s (Bohman, 1998).¹ The academic scholarship on deliberative democracy is extensive and varied. Despite this, it is possible to elicit a number of key features shared amongst a vast majority of the exponents. The first is that democracy ought not to be defined in terms of the aggregation of pre-existing preferences in a vote at elections or in a referendum, nor in terms of a reflection of the balance of competing interests within civil society, as the pluralist model has it. Rather, for advocates of deliberative democracy, collective decisions are only legitimate if they are made after reasoned and detailed discussion. Second, it is held that genuinely deliberative arenas ought to be as inclusive as possible with all points of view and social characteristics represented, and an equal chance to participate offered to all of those who are present. Third, during deliberation, self-interest should be put aside, as should strategic behaviour designed to achieve as much as possible of a pre-existing agenda. Instead, mutual respect of, and empathy for, the arguments of others is encouraged. Fourth, the inclusive communication and social learning inherent in the deliberative process, it is suggested, leads to better decisions in the sense that they are more informed, more effective and more just.

Finally, deliberation, it is argued, increases the possibility of a consensus being arrived at and the transformation of the views of participants. It is seen therefore as a useful device to tackle issues which seem to involve intractable moral conflicts. That is not to say that unanimity is a real prospect in most cases, and value pluralism is accepted by most advocates of deliberative democracy as a normatively justified obstacle to consensus. As a result, the aggregation of preferences may well still be necessary as an end-point. However, even if there is still disagreement, collective decisions made after deliberation are regarded as more legitimate than the mere aggregation of preferences, not necessarily or not just because of the decisions made, but because of the deliberative procedure followed. It involves a sense, that is, that all the views of participants are taken seriously and that everyone tries to empathise with the views of others.

3. The Boyd Group and animal experimentation

The claims made by deliberative theorists can only really be tested by empirical research examining deliberative democracy in action. Here, it should be noted that the early heady days of abstract deliberative theory, has, since the latter years of the 1990s, given way to a ‘new practical emphasis on feasibility’ (Bohman, 1998: 400). Attempts to design ideal deliberative forums have been accompanied by empirical studies of real world examples.²

The BG represents one example of a deliberative exercise. It is a forum born out of the adversarial climate of animal experimentation politics in Britain in the late 1980s and early 1990s. Its origins, in the early 1990s, can be found in a debate in the British media. After appearing on a daytime television debate programme (Kilroy, presented by the former Labour MP Robert Kilroy Silk) two of the leading adversaries in the animal experimentation debate – Les Ward (at that time Chief Executive of Advocates for Animals, an anti-vivisection organisation – previously known as the Scottish Society for the Prevention of Vivisection and now known as OneKind) and Colin Blakemore (at that time Waynflete Professor of Physiology at the University of Oxford) – decided that a more meaningful dialogue on the issue was required. It was, Ward said later at a House of Lords committee hearing, an attempt to end the ‘trench warfare’ that had accompanied the issue. A discussion forum, he continued, would create an opportunity ‘to hear all the arguments, they could hear mine, we could test the arguments, and we could see if there was some way of finding common ground to move this whole controversial subject of animal experimentation forward’ (House of Lords, 2002: q. 1384). In particular, Ward was keen to test the

authenticity of the claim made by scientists that they ‘dislike using animals’ (ibid). Since the aim of the BG was to find agreement on reducing and refining, if not eliminating, the use of animals, it promised to be a useful vehicle to test that claim.

Conversations between Ward and Blakemore led to the two agreeing to help to organise and meet in a formal body which became known as the BG after its chairman Kenneth Boyd, subsequently Professor of Medical Ethics at Edinburgh University. The BG met regularly – usually at the Wellcome Trust headquarters in London – from 1992 until 2006 by which time its two founders had left. From that time, BG meetings have been intermittent, although there were numerous meetings on the new EU Directive on animal experimentation in a two-year period from 2008, and a meeting on openness in animal research in February 2015. The BG has debated a range of issues relating to animal experimentation, and has produced a number of reports documenting the discussions, and the decisions reached, in some of these debates (Boyd Group, 1995, 1998, 1999, 2002, 2002a; Boyd Group and the RSPCA, 2004). In addition, the BG has also regularly submitted evidence to public consultations (Boyd Group, 2001, 2002b, 2010).

The operating principles of the BG are unmistakably deliberative in tone, its objectives being ‘to promote dialogue between ... diverse people and organisations’, to ‘clarify key issues of concern identified by participants, in order to reveal the basis of the various perspectives and positions on the issues, and to understand where the differences lie’ and ‘where possible, to identify points of consensus and make practical recommendations’. ‘Achieving consensus is not the major goal of the Boyd Group’ it is argued further, but whilst ‘members are not expected to leave behind their positions on the issues’ there is an expectation that ‘careful argument rather than rhetoric’ be employed and that ‘understanding between people who have rather different perspectives ... can be enhanced’ (<https://science.rspca.org.uk/ImageLocator/LocateAsset?asset=document&assetId=1232712902059&mode=prd>).

Animal research, of course, is a notoriously adversarial issue, and continues to be the most contentious issue in animal protection politics (Lyons, 2013). Given that far more animals are bred and killed for food, this might come as a surprise. It is true that there has, of course, been enormous controversy over intensive animal agriculture (so-called ‘factory farming’). However, it is still possible to raise farm animals, and therefore to continue eating meat, in extensive systems with the worst excesses of factory farming removed, and therefore with a much reduced incidence of animal suffering. In the case of animal research, on the other hand, inflicting, sometimes severe, suffering on animals is, scientists

claim at least, necessary in order to achieve the benefits of research. As a corollary, of course, it is also claimed that the benefits to humans of animal research are so great as to make the infliction of this suffering justified.

At the time the BG was formed, the animal experimentation debate had become particularly conflictual and adversarial. Little has occurred in the intervening two decades to change this. Direct action of various kinds remains an important tactic of the animal rights movement (Cressey, 2011) and the two sides in the debate appear as far apart as ever. Scientists seek to defend the value of animal research (Fox, 2012) and their lobbying organisation (in the UK) Understanding Animal Research embarked, in 2014, on an openness strategy designed, in part at least, to publicise its achievements and to reassure public concern about the treatment of animals (<http://concordatopenness.org.uk/>). On the other side, the anti-vivisectionist community remains adamant that animal research is unethical and, in large part, ineffectual (Garrett, 2012; Linzey and Linzey, 2015), and there is also a body of scientific criticism of animal experimentation (see LaFollette and Shanks, 1996).

Characteristics of Boyd Group participants

Although the operating principles of the BG are consistent with the demands of deliberative theory, there are significant differences which do not make it a particularly good test of deliberative theory. For one thing, it is group-based, rather than citizen-based, given that most of its participants – whether or not they have acted as autonomous individuals in the course of deliberation – are representatives of particular groups organised to take a particular position in the debate. Membership is in fact open to both individuals and organisations, although in practice those representing organisations have constituted the vast majority. The BG is also an example of a deliberative forum within civil society, rather than the state. That is, it was set up by actors in civil society with no prompting by state institutions. However, it is not a grass-roots deliberative arena, along the lines promoted by political theorists such as Dryzek (2000, 2000a). Rather, it consists of experts, from the fields of academic science, animal protection and industry lobbying and ethics. Moreover, most of the participants are partisans, with strong leanings towards one side of the debate or the other.

The characteristics of the BG immediately set it apart from the conventional deliberative forums envisaged by theorists and put into practice in deliberative experiments. Most of these are versions of so-called ‘minipublics’, the classic example of which is the citizens’ jury (Elstub, 2014; Smith and Wales,

2000). This involves the choosing of a representative sample of people who are invited to discuss, in small groups of between 16-25, an (often contentious) issue of public policy. Crucial to the exercise is the provision of briefing information provided beforehand and exposure to experts during the deliberative period. The juries are then invited to reach agreement and come up with recommendations.

Such citizens' juries differ in crucial ways from the BG. In particular, the latter consists of partisans and experts, and not, as with minipublics, ordinary members of the public with no particular stance on an issue or knowledge. I will deal with the question of expertise here, leaving partisanship until later. The issue of expertise raises some interesting questions about deliberative democracy. One of the characteristics of genuine deliberative democracy is the emphasis placed upon informed and rational decision making. Indeed, for some, the epistemic quality of decision making is its chief advantage (Marti, 2006). An important part of deliberative forums such as citizens' juries, therefore, is the opportunity offered to participants to gain access to the views of a variety of experts as part of the deliberative exercise. There is, of course, a potential conflict between deliberation and democracy here in the sense that if our goal is the instrumental one of rational, informed, and knowledgeable decision making – in short, producing correct decisions (as opposed to the argument that deliberation is desirable because it is intrinsically valuable) then it is likely that our conclusion should be that democracy ought to be overlooked in favour of non-democratic forums consisting of an elite of political and moral experts.

Members of the BG have consisted largely of experts in their field, whether it be from the fields of academic science, animal protection lobbying or ethics. Even in the case of the BG, it should be noted however, expertise external to it has been utilised. For example, primatologists were invited to sessions on the use of non-human primates in scientific research (Boyd Group, 2002a: 6), and the BG took advice from six contract-testing organisations and three major manufacturers of household products when considering the use of animals in the testing of household products (Boyd Group, 2002: 12).

One key question in assessing the deliberative claim of the BG is the degree to which it has been inclusive. Inclusiveness is an important characteristic of deliberative democracy. Of course, theorists of deliberative democracy recognise that modern societies are too large and complex for everyone to be involved in deliberative forums, and this, of course, is the reason for recommending the creation of representative 'minipublics'. The BG cannot lay claim to be representative of wider society in a descriptive sense. That was not its aim. What it might be able to claim, however, is that it has been representative of the animal experimentation issue, with all sides of the debate given a significant hearing.

It might, following Goodin (2000, 82), have been able to get ‘all the positions on the table, as distinct from all persons to the podium’.

If we adopt this definition of inclusiveness, though, then the BG has only been partly inclusive. This is because the major anti-vivisectionist groups – the National Antivivisection Society (NAVS) and the BUAV – both refused to participate (organisationally at least) from the start, as did other animal rights groups such as Animal Aid and People for the Ethical Treatment of Animals (PETA). There was a perception amongst the bulk of the anti-vivisection group that to participate would be to sell out their abolitionist principles in a forum dominated by scientists with an interest in the continued use of animals in scientific experiments. For NAVS, for instance, the BG ‘has a pre-set agenda’ and that, in any case, it is ‘just another talking shop’ (House of Lords, 2002: q. 1362).

The anti-vivisection organisations’ public opposition to the BG has therefore been partly ethical and partly strategic. Adopting an animal rights position, these groups are opposed ethically to the use of animals for scientific research irrespective of the benefits, to humans and other animals, which might accrue. In the words of Andrew Tyler, the director of the animal rights group Animal Aid, the BG ‘is a consensus-seeking talking shop ... embodying the middle line’ whilst Animal Aid is ‘unequivocally opposed to animal experimentation’ (letter from Andrew Tyler to Colin Blakemore, 24 January 1997). Their opposition to membership was also strategic in the sense that they thought that participation would give ‘credence’ to animal experimentation (letter from Andrew Tyler to Colin Blakemore, 11 July 1996).

The lack of support from the abolitionist anti-vivisectionist groups has represented a problem for the viability of the BG. Colin Blakemore admitted as much when he remarked that ‘our credibility was reduced’ as a result of it (House of Lords, 2002, q. 964). Les Ward, too, regarded it as a missed opportunity for the anti-vivisection movement. He argues that the public opposition of the anti-vivisection organisations gave the impression that they were not confident of debating the issue, whereas their participation might have led to more debate of the central issues. Indeed, in Ward’s view it was the ‘moral duty’ of the anti-vivisectionists to participate (interview with Les Ward, 19 February 2014).

However, despite the exclusion of the main anti-vivisectionist groups, it should be pointed out that this was self-exclusion. Indeed, the ethos of the BG has been inclusive. According to its constitution, the only individuals and organisations refused membership are those who ‘support violent activity or break the criminal law’ (information provided by Jane Smith). The key organisers of the BG, including Ward, wanted them to participate. Indeed, Blakemore constantly made the, undoubtedly politically

astute, claim that he was prepared to ‘talk to almost anyone’ to achieve progress in the debate, at one point saying that ‘I am perfectly prepared to see the ALF [the Animal Liberation Front] at the table if their attitude is constructive and there is a chance of progress’ (Masood, 1997). The anti-vivisection groups turned down the invitations offered.³

It is also the case that the abolitionist anti-vivisectionist position was represented continually, until his decision to leave in 2006, by Ward himself, Director of Advocates for Animals. Philosophers sympathetic to the anti-vivisection position, such as Stephen Clarke, were also members. More intriguingly, it is apparent that other anti-vivisectionists regularly participated in the BG in an individual capacity despite their organisation’s public opposition (interview with Jane Smith, 10 November 2014; e-mail communication with Kenneth Boyd, 10 November 2014). A senior member of People for the Ethical Treatment of Animals (PETA), for instance, regularly attended meetings, and BUAV were also represented on occasions. In addition, all of the major anti-vivisection groups (BUAV, NAVS and Uncaged, as well as Advocates for Animals) were represented in a 2004 joint BG/RSPCA debate on categorising the severity of scientific procedures (Boyd Group and the RSPCA, 2004).

The BG, therefore, has had a reasonably inclusive membership, although the anti-vivisectionist stance always constituted a relatively small minority (interview with Jane Smith 21 January, 2014). In 2002, the BG had 25 permanent member organisations including, as well as anti-vivisectionists, animal welfare, pharmaceutical interests, academic scientists, veterinarians and philosophers as well as a nominee from the Home Office (House of Lords, 2002: q. 964). Organisations represented included Advocates for Animals, the RSPCA, the Fund for the Replacement of Animals in Medical Experiments (FRAME), the Universities Fund for Animal Welfare (UFAW), the Research Defence Society (now Understanding Animal Research), the Laboratory Animals Science Association, the Medical Research Council, the Association of the British Pharmaceutical Industry and the Bioscience Federations’ Animal Science Group.

4. Managing moral conflict

How far can the activities of the BG be regarded as genuinely deliberative? The first point to make is the fact that membership of the BG has been made up primarily of organisations is not promising from a deliberative perspective. It raises the prospect of representatives acting as delegates of these organisations, putting forward the organisation’s position and reporting back the outcome. Insofar as this

was the case it would minimise the opportunities for members to act autonomously and be prepared to empathise with others around the table, and maybe change their views accordingly. Despite the fact that organisations joined as members of the BG, however, the operational practice of meetings was consistent with deliberative theory. That is, in order to encourage dialogue and genuine deliberation, the BG operates under Chatham House rules where the content of what was discussed can be talked about in public but not who said what (interview with Jane Smith, 10 November 2014).

The dilemma of group membership in a deliberative body, where participants are supposed to act as individuals open to changing their views, is illustrated in particular by the difficult position that animal rights leaders found themselves in. Those animal rights elites who refused to participate in the BG opposed it partly on the grounds that they were unwilling to attend as individuals as opposed to delegates of their management boards and wider memberships. Jan Creamer, the NAVS' Chief Executive, for instance, told a House of Lords Select Committee that: 'I take the view that I work for a Council of Management and if the organisation is not invited to a Boyd Group meeting then I cannot go' (House of Lords, 2002: q. 1362). Similarly, Andrew Tyler explained his decision to refuse to participate in the BG, in a letter to the *Observer* newspaper (June 9, 1996), by emphasising that he 'would never be part of any gatherings whose proceedings, objectives and decision-making were not open to scrutiny by the broad animal rights movement'. In this context, it is interesting that, as was pointed out above, some animal rights leaders sought, consciously or not, to circumvent the group/individual dilemma by attending the BG in an individual capacity which allowed their organisations to remain publically opposed to participation.

Another, related, factor that might impact on the deliberative potential of the BG is its partisan character. The evidence suggests that the transformation of attitudes, a crucial component of deliberative theory, is – as common sense would suggest – more likely to occur amongst those with no previously strong views on an issue (Hendriks et. al, 2007). Obviously, such uncommitted deliberators are more likely to elicit the quality of open-mindedness, a prerequisite of opinion change. It is for this reason that those organising minipublics deliberately choose non-partisans as participants. Participants in the BG, by contrast, have been mostly knowledgeable partisans and one would therefore expect less movement in views.

A study of the BG's operation only partly confirms this pessimistic assumption. What is interesting, firstly, is the methods its participants have used to manage moral conflict. In that sense, its

work represents a good example of putting into practice what Gutmann and Thompson (1996) describe as an ‘economy of moral disagreement’, whereby in cases where there are seemingly intractable moral conflicts the aim should be to minimise the distance between competing moral positions, to emphasise what is shared in common and to foster a ‘politics of mutual respect’.⁴

The first of these methods relates to the choice of topics for discussion which have been limited to those, more peripheral, areas of the issue where consensus was more likely to be reached. This has included the ethical review process, the use of animals for the testing of cosmetics and household products, the use of non-human primates in the laboratory and openness in animal research. These issues are regarded as peripheral either because they involve the regulation of animal research rather than the actual use of animals in the laboratory, or they involve relatively few animals (compared to those used for medical research). These were the issues, in addition, where there was wide public support for reform. Indeed, in the case of a ban on the use of animals for cosmetic testing, a ban on the use of Great Apes in scientific research and the introduction of local ethical review committees, the Labour Government elected in 1997 acted before, or soon after, the BG deliberated on them.⁵

The issues chosen for discussion by the BG maximised the possibility of a consensus emerging. For example, in its 1998 report on the use of animals for testing cosmetics, a ‘consensus position’ was reached endorsing ‘the decision by the British Government not to issue any further licenses to use animals for testing cosmetics’ (Boyd Group, 1998). In a similar vein, it was agreed, in the debate on the use of non-human primates, that the mental capacities of the Great Apes are such that ‘it is unethical to confine them in laboratories and use them in research and testing’ (Boyd Group, 2002: 3).

Where consensus has proved impossible, the BG has adopted the strategy of explicitly referring to the disagreements. This has taken two main forms. Where the vast majority could reach agreement, a consensus position has been adopted with the dissent of a small minority of members also recorded. In other cases, a more equal division of opinion has been recorded. For example, despite the consensus for a ban on the testing of finished cosmetic products, the BG was unable to reach agreement on whether it ought to be permissible to use animals to test the individual ingredients that are used in cosmetics. The compromise position reached was that a ban could be introduced but only when alternatives to the use of animals for the purpose are validated (Boyd Group, 1998). In the report, the difference of opinion was revealed with some members (the anti-vivisectionists and presumably the animal welfare representatives too) regarding the continued testing on animals of any ‘ingredients developed primarily for use in any

cosmetic product calls into question the application of the basic principles of ASPA – the Animals (Scientific Procedures) Act – and therefore should not be allowed’ (Boyd Group, 1998).⁶

There are many other examples of this recognition of disagreement. For example, in the report on genetic engineering, some (a minority) of members of the BG thought that the genetic engineering of animals ought to be abandoned altogether, others that it should be better regulated (Boyd Group, 1999). Similarly, in the report on the use of animals in testing household products, a statement of principle was agreed whereby ‘[m]embers believe that it is unacceptable to use animals in developing and testing new products that are widely perceived to be convenience products for which there is little potential need’. It was recognised that it is possible to avoid using animals to test finished products in most cases anyway because of existing knowledge about the ingredients. Where this is not available, the Group agreed that the benefits of a new product ‘should be foregone’ (Boyd Group, 2002a: 3). Even here though, one industry group was recorded as being only lukewarm in support of this statement, believing that, if implemented, it risked such testing being moved abroad where it was not banned. (Boyd Group, 2002a: 1).

Another good example of this method of recognising disagreement concerns the use of non-human primates. Although, as we saw above, there was agreement that the use of Great Apes should not be permitted in scientific research, agreement was not reached on other non-human primates, with some members arguing that their use should be allowed if ‘very strong justification’ was forthcoming, whereas others arguing that their use ought to be prohibited completely (Boyd Group, 2002: 3). Even when animal welfare representatives on the BG were prepared to concede the case for the use of non-human primates in toxicology testing under exceptional circumstances, there was no agreement on the method by which the case for their use might be assessed. Whilst ‘most’ members thought that local ethical review committees should do a harm-benefit analysis of each substance to be tested on non-human primates (with the granting of project licenses being dependent on approval by local ethical reviews) ‘some members’ (probably representatives of contract testing organisations worried about potential loss of business as a result of delays), had concerns about the ‘practicality of such local reviews’ (Boyd Group, 2002: 55).⁷

Yet another device utilized to manage moral conflict, and maximise inclusion, within the BG has been the use of sub-groups. For example, in 2004, a debate – co-organised by the RSPCA – on the categories used by the Home Office to classify the severity of scientific procedures, was conducted within

three separate round-table discussions. The first consisted of veterinary surgeons and animal care and welfare officers working at institutions licensed under the Animals (Scientific Procedures) Act, the second consisted of license holders under the legislation and the third consisted of representatives from animal protection organisations including the anti-vivisection organisations together with animal welfare groups FRAME, the RSPCA and the Dr. Hadwen Trust (Boyd Group and the RSPCA, 2004: 1).

The debate was initiated by the BG following a BUAV video of primate research which appeared to raise serious questions about the utility of the severity categories enshrined in the legislation.⁶ The report on the severity categories illustrates all of the strategies utilised by the BG to manage moral disagreement. Not only were sub-groups employed but, in addition, the plenary meeting of BG members, which met to consider the reports from each round table, did reach a consensus that the severity bandings are too imprecise and, in particular, that the ‘moderate’ category is ‘too comfortable a term for many of the adverse effects it encompasses’ (Boyd Group, 2004: 4). There was also recognition of disagreement. Thus, written in bold at the start of the report of the proceedings of the animal protection group round table is the statement that all of the groups were ‘opposed to the use of animals in any scientific procedure likely to cause the animals pain, distress or other suffering’ (Boyd Group, 2004: 23).

How transformative?

Managing moral conflict through a strategy of economizing moral disagreement is one thing, a genuine transformation of views so that this conflict is significantly reduced is quite another. As one might expect, given the partisan nature of the BG, there is little evidence that deliberation has had a genuinely transformative effect on the views of the participants. The published reports of the BG reveal very little evidence of a significant shift in views on the substantive issues, with the dominant means of managing moral conflict being a recognition of difference. This is confirmed by evidence from the participants. Stephen Clark comments, for instance, that ‘I’m not sure that anyone ever moved from their root convictions’ (e-mail communication 26 February 2014). Certainly, any attempts (by Les Ward in particular) to go beyond these issues to consider the central question of the value of using animals in medical research, and the identification of reduction targets, was met with a return to the trenches. In 2002, Ward had commented, ominously, that there were still people in the BG ‘who are holding entrenched positions’ (House of Lords, 2002: q. 1384), and it was the ‘stalemate’ resulting that provoked, at least in part, Ward’s decision to leave the BG in 2006 (interview with Les Ward, 19 February 2014).

That is not to say, however, that deliberation has had no impact on the participants, or the way in which the debate about animal research has been conducted. In the first place, there is some, anecdotal, evidence of a shift in attitudes, if not on the substantive issues then certainly on how the participants regarded each other. In an anonymous survey of members' views, for instance, one participant said that 'I've had my beliefs and preconceptions challenged', another that participation in the BG had 'forced me to look at the issues in a different way and has changed the nature of debates within my organisation. We are more willing to listen to the anti-vivisectionist point of view and to respect it' (information provided by Jane Smith).

In addition, there is evidence too, that the participants regarded decisions taken by the BG as legitimate, even if they disagreed with them. For example, Colin Blakemore was 'not happy' with the decision to support the banning of the use of Great Apes in medical research, believing instead that a harm-benefit analysis should be used in the case of all animal use (AR Zone, 2011), and was also critical of some aspects of the BG's decisions on the local ethical review process. However, he was prepared to accept the decisions that he had 'signed up to' (House of Lords, 2002, q. 973).

It is important, too, to note the climate existing when the BG first met in 1992. This was one of hostility and suspicion, particularly on the side of scientists (and not least Blakemore himself who had been the target of threats of violence from the extremes of the animal rights movement). Participants joined the BG, therefore, with not a little apprehension about facing their opponents around a table. In this context, getting advocates from both sides to sit down and talk together in a polite, reasoned and calm manner – irrespective of whether their views on the issues changed too – might be regarded as something of an achievement. As Blakemore remarked: 'It may not produce always complete agreement but it is very, very difficult to continue to hate someone ... if you have sat for two or three hours opposite them around a table, drinking a cup of tea, thrashing out the basis of the differences of opinion' (House of Lords, 2002: 965).

In addition, there is some evidence confirming the claim sometimes made (Morris, 2006) that the supporters and practitioners of animal research are able to be more critical of some practices in a closed deliberative arena than would be the case in a public debate. For instance, in the deliberation on severity categories, the participants in the round tables representing licence holders and veterinarians reported that they were dissatisfied by the severity categories used by the Home Office to classify scientific procedures. In the case of the former, it was recognised that the Home Office's practice of publishing (in

the annual statistical review of scientific procedures on animals) an average prospective severity banding for each project, without stipulating the actual severity of the procedures on individual animals, was little short of meaningless (Boyd Group and the RSPCA, 2004: 7). In the case of the latter, it was ‘generally agreed’ that assigning severity bandings at times ‘can feel rather arbitrary’ and that overall severity bands for projects ‘are of little or no use in practice’ (Boyd Group and the RSPCA, 2004: 37-9).

The fact that some disagreements still existed on what might be regarded as peripheral issues indicates that there was little movement amongst those who regarded scientific procedures on animals as essential. Nevertheless, a large degree of consensus was reached, as we saw, on issues such as the testing of household products and cosmetics, the use of non-human primates, and the role of local ethical review processes. Blakemore regarded such progress as ‘quite remarkable’ (House of Lords, 2002: 965) which, whilst something of an exaggeration, does perhaps reflect how far apart the members were when they first met around the deliberative table. It is apparent that Colin Blakemore played a dynamic role in persuading wavering members of the BG to accept the need for some movement on, for example, cosmetic testing and local ethical review (interview with Les Ward, 19 February 2014).

The discussions on the EU’s proposed new Directive on animal research in 2010 (conducted as part of the Government’s consultation exercise) reveals, it might be argued, how far the BG had come. By this time, its membership had evolved considerably (the two founders having left) but the deliberative approach was now well established. In the view of Jane Smith – a key organiser of, and participant in, the BG from its early days – the result of deliberation on the Directive did ‘show quite considerable movement ... in some areas that might not have been expected’ when the debate began (interview with Jane Smith 21 January, 2014). This, in particular, refers to the local ethical review process. The EU Directive stipulated that national regulative regimes must include an animal welfare body (AWB) in every research establishment. This proposal, however, was a much weaker version, in terms of membership and function, of the ethical review process (ERP) already in place in the British regulatory regime. The Directive stipulated that AWBs must contain a minimum of only two members and there was no requirement that they play an ethical role in assessing project licenses by weighing up the harms to the animals against the likely benefits of the research.

‘Considerable discussion’ on these regulatory issues ensued in the BG (Boyd Group, 2010: 24). In Smith’s view, the ‘bold’ statement that resulted was unexpected (interview with Jane Smith 21 January, 2014). There was not complete consensus, but the ‘general feeling’ of the BG was that the

ethical function should remain on the grounds that it would be ‘difficult to see how establishments can exercise responsibility for animal welfare ... without providing an opportunity for relevant staff to see and discuss license applications’ (Boyd Group, 2010: 24-5). Likewise, it was agreed that AWBs ought to have more extensive memberships than the minimum requirement set out in the Directive so that they can contain ‘a range of local perspectives and expertise’ (Boyd Group, 2010: 24).

It is important not to make too much of the near consensus emanating from the BG deliberation on the regulatory process. For one thing, it was, in effect, decided to maintain the status quo which for many animal advocates, of course, is entirely unsatisfactory. On the other hand, this was an opportunity for scientist and industry participants in the BG to suggest weakening what many of them regard as the unnecessary bureaucracy of the ERP. It is clear that there was a difference of opinion on this in the BG deliberations which were examined in some depth (Boyd Group, 2010: 25). Much of this seemed to revolve around the key question of the role to be played by ethics in the regulatory procedure, with some (the minority it seems) using the absence of local ethical consideration in the Directive as a justification for recommending its removal from the British regulatory regime, and those (the vast majority it seems) who recognised that ‘ethical judgements are a necessary part of developing a culture of care’ (Boyd Group, 2010: 25). The fact that the vast majority of the participants in the BG deliberation (consisting mostly of scientists and industry representatives) recognised the importance of ethics might be regarded as an example of deliberation resulting in a more favourable outcome for those concerned about animal protection than what otherwise might have been the case.

5. Conclusion

The experience of the BG does demonstrate, to a certain extent, the value of deliberation. It has had the effect of softening some of the views and attitudes of the participants, it has facilitated some compromises and it provides a useful guide to the methods available to those wishing to manage moral conflict. In the final analysis, however, what the BG has not done, unsurprisingly, is to produce consensus on the fundamental issue of the use of animals in scientific procedures.

It is, of course, a problem that consensus was only reached on more peripheral issues as it reflects a failure to confront the really difficult issues, a pattern which, it is claimed, is endemic in animal experimentation ethical review committees (Poort, Holmberg and Ideland, 2003). However, to be fair, reaching consensus on the fundamental question, of whether it is ethically permissible to use animals for

scientific purposes, is a tall order in such a partisan body, and was never the intention in any case. It does add support, though, to Parkinson's 'somewhat pessimistic' conclusion that 'one can only have good deliberation on things which do not matter all that much', at least to the participants (Parkinson, 2006: 19).

The big unanswerable question is what impact there could have been had the big anti-vivisectionist, and other animal rights, groups been prepared to join formally. Some, such as Les Ward, regarded their refusal to participate as a missed opportunity. Others argue that the effect would have been, at best, to result in the BG becoming an unworkable and short-lived experiment, and, at worst, to the co-opting and constraining of oppositional views, thereby damaging the anti-vivisection cause (interview with Andrew Tyler, 16 May 2014). What we can say is that the claim, that the BG had a pre-set agenda in favour of animal research, is not supported, as we have seen, by the evidence. All positions were given equal opportunity to be expressed in BG meetings and inordinate care has been taken to ensure that an abolitionist objection to the decisions taken has always been expressed, when requested, in the BG's published reports.

Of course, the motivation of participants is open to interpretation. On the one hand, it could be that some, or indeed the majority, of the scientific and industry representatives in the BG have sought to involve animal advocates in order to explain to them the error of their ways. Insofar as this was the primary motive then it is, of course, inconsistent with the open-mindedness that is required by deliberative theory. A suspicion that this was Blakemore's real motive is illustrated by a journalist who writes about him in the following terms: 'Blakemore never ceased to believe in the possibility of rational discussion, of dialogue. He felt and still feels that if people knew the facts about animal research ... all but the most extreme opponents could be convinced of its necessity' (Klotzko, 2002).

A more generous interpretation has advocates of animal research, such as Blakemore, seeking a genuine conversation with anti-vivisectionists in order to break the stalemate of the adversarial debate on the issue that would otherwise continue. In this sense, Blakemore was right when he pointed out that the whole point of the BG is to 'search for ways of reducing, refining or replacing animals' and that it would be 'inconceivable at a gathering, even of scientists alone, where you could say, yes, we think there should be more animal research' (House of Lords, 2002: q. 969). The counter-factual nature of the question means that we will never know whether the participation of the main anti-vivisectionist

organisations would have made any difference to the outcome of BG discussions. Of course, the BG is still active and, perhaps – in a new, very different, era – its promise may yet be more fully realised.

Notes

1. The literature on deliberative democracy is too extensive to cite in full. The fact that there are so many edited collections on the subject is indicative of its resonance in political studies. The most notable are: Benhabib, 1996; Besson and Marti, 2006; Bohman, and Rehg, 1997; D'Entreves, 2002; Elster, 1998; Elstub and McLaverty, 2014; Fishkin and Laslett, 2003; Macedo, 1999; Saward, 2000.
2. Some examples are Davidson and Elstub 2014; Dryzek, 2000; Farrell, O'Malley, and Suiter, 2013; Fishkin and Luskin, 2000; Fung and Wright, 2001; Goodin, 2000, 2002; Parkinson, 2006; Steiner et. al., 2004.
3. Evidence for Blakemore's commitment to inclusivity is provided by a fascinating correspondence he had with Andrew Tyler, Director of the animal rights group Animal Aid, between July 1996 and April 1997. In numerous, fairly lengthy, letters – some of which are cited in this article – Blakemore sought to persuade Animal Aid to participate by seeking to rebut Tyler's objections to the BG. The letters were made available to me by Tyler, and it is clear from the content that both men were happy for the content to be made public.
4. The obvious retort here is that a deliberative model that does not directly include the interests of non-humans fails, by definition, to treat them with respect. It is beyond the scope of this article to consider what a 'species-neutral' deliberative model would look like, but see Donaldson and Kymlicka (2011) and Garner (2016) on this.
5. In the event, the Labour Government announced, in 1998, a ban on the use of animals to test cosmetic ingredients as well as the finished product.
6. The 1986 Animals (Scientific Procedures) Act established a dual licensing system whereby, in order to conduct research using animals, a personal licence (reviewed every five years) and a project license permitting particular procedures, is required.
7. Under the auspices of the 1986 (Scientific Procedures Act) a 'severity banding' of animal research was introduced. Procedures are designated as involving mild, moderate or substantial suffering. Not only is there a lack of clarity over what these categories mean, but the banding is determined prior to the actual procedures, and, as all of the sub-groups in the BG deliberation agreed (Boyd Group and RSPCA, 2004:

3-4), the practice of providing a severity banding of projects (based on the experience of the average animal) is misleading and ethically dubious.

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