

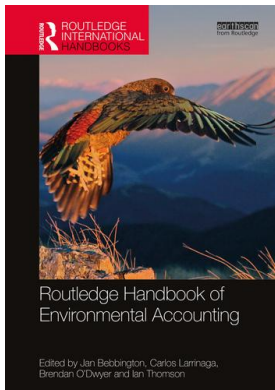
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ACCOUNTING
FOR ANIMAL RIGHTS*Eija Vinnari and Markus Vinnari***Introduction**

An unprecedented number of non-human animals, both domesticated and wild ones, are currently adversely affected by human activities. According to estimates, there are at least 21 billion chicken, 1.485 billion cattle and 1.169 billion sheep in the world (Cawthorn and Hoffman 2014). Of these individuals, more than 65 billion are slaughtered annually for food production purposes (Allievi et al. 2015). In turn, the exponential increase of both human beings and farmed animals¹ has resulted in severe habitat loss and hence a decline in wild animal populations (Barnosky 2008; Machovina et al. 2015; Ripple et al. 2014, 2015). Human activity is driving wild animal species' extinction at such a pace that authoritative experts have labelled this phenomenon as "biological annihilation" (Ceballos et al. 2017).

The widespread concern over wild species' extinction has given rise to biodiversity accounting², a set of practices whereby different types of organisations attempt to account for endangered species, with varying success (Jones 2014; Jones and Solomon 2013; Rimmel and Jonäll 2013; see also chapter 28 by Bebbington, Cuckston and Feger in the present book). Meanwhile, public concerns over the treatment of farmed animals have prompted meat and dairy companies to develop policies, systems and processes for managing animal welfare, including accounting and reporting on associated performance. To accelerate the adoption of such practices, systems for assessing companies' animal welfare performance have also emerged, such as the Business Benchmark on Farm Animal Welfare (BBFAW) launched in 2012 (see McLaren and Appleyard 2019).

In this chapter, we consider accounting for both wild animals and farmed animals. However, we are not interested in accounting for animal *welfare* but accounting for animal *rights*. The notions of animal welfare and animal rights have different moral philosophical roots, with radically different implications for contemporary societies' treatment of non-human animals. Animal welfare is often associated with a utilitarian view (e.g. Singer 1975), which approves of humans using other animals as long as their interests are given equal consideration to those of humans, and such use increases the overall well-being. Animal welfarists therefore advocate "compassionate" treatment of non-human animals and "humane" methods of killing them. In contrast, those defending animal rights have presented views which consider it morally wrong to

abuse or kill non-human animals (Regan 1985). The ultimate goal of animal rights advocates is therefore to radically decrease or even abolish all use of non-human animals for food, clothing, science, entertainment and sports (e.g. Cochrane 2012; Francione 2010). Although such a goal has sometimes been derided as utopian (e.g. Mepham 2006), the constant advances in scientific knowledge regarding non-human animals' cognitive abilities and emotional intelligence have made the case for their equal consideration even more compelling (e.g. Rachels 1990; Aaltola 2012).

The purpose of this chapter is thus to explore how to account for animal rights. This is a less-than-straightforward task for various reasons. First, it signifies a commitment to a radical agenda of social change where the aim is to considerably decrease the use of non-human animals by human beings. This implies the need to conceive of a framework for conceptualising the transition. Moreover, as such a major change will inevitably take place over an extended period, the framework needs to incorporate a step-wise approach towards the ultimate goal. Second, if we wish to account for societal progress towards this aim, it is clear that indicators measuring animal welfare will soon prove inadequate. This presents us with the challenge of accounting for society-level change that might be more difficult to observe and measure than, say, transport times from farms to slaughterhouses. Third, as this is, at least to our knowledge, the first attempt to outline what accounting for animal rights might look like, this chapter is necessarily explorative and forward-looking. The ideas and indicators presented herein are tentative and illustrative; we leave it to future research to refine and elaborate on them.

In addition to the societal goal of advancing animal rights, this chapter is hoped to contribute to the fundamental themes of environmental accounting research. Many of the early works in this vein focused on how accounting and accountability systems could be harnessed for the purpose of establishing rights, responsibilities and accountability in relation to the natural environment (for a selection of such articles, see Gray et al. 2010). Our study extends previous work by proposing how accounting could be mobilised in establishing rights for non-human animals, an actor group largely neglected in prior accounting research (Dillard and Vinnari 2017). Furthermore, our proposal could be considered a challenge to the social contract basis upon which environmental accounting is founded. Can the notion of social constituent (Ramanathan 1976) be extended to include also non-human animals and if so, with what implications³?

This chapter proceeds as follows. We begin by reviewing seminal contributions to the debate on the moral value of non-human animals and the political implications thereof. These issues have mainly been debated in the field of animal ethics, but also to some extent in political philosophy. In reviewing this literature, we point out the different ways in which animal rights has been theorised and how these result in different normative views regarding the extent to which animal use is considered acceptable. Subsequently, building on the goals presented in the animal ethics/political philosophy literature, we develop a hierarchical framework for conceptualising a step-wise process towards the achievement of animal rights. The framework begins from acknowledging the existence of non-human animals and ends up with them being completely liberated in the sense intended by the abolitionist animal rights scholars. We also provide examples of qualitative and quantitative indicators that could be utilised at each step of the hierarchy. Finally, we discuss questions related to the operationalisation of the framework and associated accounting measures, including what kind of institutional arrangements would be required to support such a transition; who would collect, collate and report the data; as well as who would utilise the data and to what effect.

Perspectives on the moral worth of non-human animals

In this section we introduce ideas concerning the moral worth of non-human animals as presented in animal ethics, an interdisciplinary field of study comprising contributions from political scientists, legal studies scholars, philosophers, zoologists and social scientists. Due to the vastness of this established field of inquiry, we must necessarily confine our review to discussing the key contributions to the debate concerning animal rights.

The debate around animal welfare and animal rights is an old one and it has taken different forms during past centuries (Walters and Portmess 1999). In its modern form the debate can be said to have begun when Singer (1975) published a book which not only contained graphic photos of animals used in scientific and agricultural practices, but also further developed a philosophical framework explaining why such instances of animal use were morally unacceptable. The key concept in Singer's (1975) argumentation is sentience, in other words an individual's capacity to experience the world, to feel pain and pleasure. He argued that it is sentience – as opposed to, for instance, race, rationality, gender, or level of intelligence, which provides the basis for the moral equality of all human individuals. This is because the ability to suffer endows us with morally significant interests in how our lives turn out. Since many non-human animals are also sentient, Singer (1975) continued, for the sake of consistency we should extend moral equality to such animals. Importantly, abiding by this principle would not imply equal *treatment* of humans and non-human animals but giving the latter's interests equal *consideration* when making decisions and designing actions. Although this proposal might sound radical, Singer embedded it in a utilitarian philosophical framework that holds in highest value the maximisation of society's aggregate utility. In other words, the framework permits the use and even the killing of non-human animals provided that their interests have been duly considered and that such activities increase overall satisfaction of interests. Because of these allowances, Singer (1975) has often been interpreted to promote improving non-human animals' welfare instead of granting them rights.

Singer's (1975) ideas gave rise to a wave of responses which criticised his utilitarian approach for allowing the subjugation of non-human animals by humans⁴. One of the most vocal critics was Regan (1984), who put forth the philosophical case for animal rights, specifically moral rights that go beyond equal consideration of non-human animals' interests alongside those of human beings. Drawing on Kantian deontological reasoning, Regan (1984) posited that sentient animals are subjects-of-a-life, in other words beings that have desires, beliefs, interests in their own fates and a sense of themselves over time. Because of this subjectivity, such animals possess inherent value that is distinct from their instrumental value to human beings, and this in turn implies that they possess the basic right to be treated respectfully. Hence, Regan (1984) concluded that sentient animals should never be treated as mere means to achieve aggregate benefits for human societies but as ends-in-themselves. When discussing the practical implication of his rights-based position, Regan (1984) explicitly referred to the need to dissolve the modern animal industry. This line of thinking has been elaborated by Regan's followers, such as legal philosopher Francione (1995), according to whom the basic right of non-human animals is not to be treated as the property of others. He also posits that the acknowledgement of such animals' right to be treated respectfully implies that they should not be used at all in agriculture, science, entertainment or sports (Francione 1996); this position is referred to as abolitionism (Francione 2010).

A more recent version of animal rights theory has been developed by Cochrane (2012, 2014), who considers his interest-based approach to cover the middle ground between Singer's (1975) utilitarian ideas and Regan's (1984) deontological ones. In contrast to Regan (1984), Cochrane

(2012, 2014) argues that most sentient animals cannot be considered as ends-in-themselves because they are not autonomous agents in the Kantian sense – in other words, they are not capable of framing, revising and pursuing their own conception of the good. Therefore, he claims that most sentient animals do not have an interest in liberty, but they do have an interest in not being made to suffer and not being killed. These two interests give rise to the *prima facie* rights of not being made to suffer and not being killed. After a thorough examination of a variety of modern-day contexts where animals are used, Cochrane (2012) concludes that the application of the interest-based approach would spell an end to a number of practices, including most forms of animal experimentation; industrial agriculture and the raising of animals for their flesh; breeding species that suffer because of bodily features; keeping great apes and cetaceans in captivity; using animals in circuses; baiting, fishing, hunting and arranged animal fights; environmental actions such as routine deforestation and other forms of habitat destruction as well as greenhouse gas emissions; and cultural practices that involve animal suffering and/or death. Permissible but regulated activities would include genetic engineering of animals, keeping of companion animals, zoos and animal racing – but only on condition that they do not inflict suffering or death upon the animals. Cochrane (2014) further argues that ensuring the fulfilment of non-human animals' interest-based rights requires the political representation of such animals by human beings, for instance, through the establishment of a committee comprising members elected by a citizen assembly.

Another recent version of animal rights theory has been proposed by Donaldson and Kymlicka (2011), whose work pledges allegiance to the rights-based approach developed by Regan (1984) and elaborated by Francione (1996). However, these authors are concerned that the “classical” rights-based approach alienates potential advocates of animal rights by focusing only on the universal negative rights of non-human animals, that is, the right not to be exploited, be made to suffer or killed. According to Donaldson and Kymlicka (2011), classical animal rights theorists' vision of a world where domesticated animals as a category have been abolished, leaving only wild animals that live undisturbed by human beings, is unrealistic as it ignores the myriad relationships where humans and non-human animals necessarily coexist and interact and prevents consideration of what non-exploitative relations between them might be like. Thus, Donaldson and Kymlicka (2011) argue that the classical animal rights theory needs to be elaborated to cover not only negative universal rights but also positive relational rights, and this can be achieved by drawing on political theory. More specifically, Donaldson and Kymlicka (2011) propose that due to their proximity to human beings, domesticated animals could be conceived of as political agents and, consequently, human beings' co-citizens, whose interests regarding issues that affect them should be actively solicited and taken into consideration in political decision-making. Wild animals in turn could be compared to the citizens of foreign nations, sovereign beings whose lives should not be infringed upon by human beings. Like Cochrane (2014), Donaldson and Kymlicka (2011) perceive it necessary to establish a body comprised of human beings genuinely willing to pursue non-human animals' interests.

As the preceding review of animal ethics literature indicates, the moral worth of animals can be conceptualised in different ways, with different political implications. We can place the main approaches along a continuum from Singer's (1975) utilitarian, welfarist views via Cochrane (2012, 2014) as well as Donaldson and Kymlicka (2011) to Regan's (1984) and Francione's (1996) deontological, abolitionist stance. In the following section, we utilise this continuum as the basis for developing a framework for characterising progress towards the attainment of animal rights.

Accounting for progress towards animal rights

Our proposed framework for conceptualising progress towards the attainment of animal rights is presented in Table 29.1. In the case of human beings, it is relatively widely accepted that individuals' needs can be placed in a hierarchical order, such as in Maslow's (1954) hierarchy of needs. Correspondingly, our framework begins from the acknowledgement of non-human animals and proceeds via the fulfilment of their basic needs and basic rights to the fulfilment of their advanced rights. The level of basic needs corresponds roughly to the utilitarian or welfarist position, whereas the level of advanced rights reflects the abolitionist goals of the deontological interpretation of animal rights. The intermediate level of basic rights corresponds to animal rights views that perceive the abolitionist stance as either unnecessary (Cochrane 2012) or unrealistic (Donaldson and Kymlicka 2011). Following Donaldson and Kymlicka (2011), our framework considers two distinct groups of non-human animals⁵: wild animals and domesticated ones, the latter including not only farmed animals but also laboratory animals and companion animals.

The indicators that we propose for each level of the framework are a selection of contemporary examples complemented with some of our own ideas. One source of inspiration in this respect is the Animal Protection Index (API), which is a composite of several indicators compiled by a group of non-governmental animal protection organisations led by World Animal Protection⁶. The API is promoted as a simple comprehensive tool with which to chart different nation states' progress in animal protection. However, in our view, some of the API indicators evaluate very basic issues (e.g. acknowledgement of animal sentience in national legislation) whereas others could be considered to assess more advanced aspects (e.g. a ban on zoos in national legislation). Therefore, we found it more meaningful to distribute selected API indicators among the different levels of our framework. Moreover, due to its focus on nation states, the API appears to focus mainly on legislation and policy, whereas we considered it useful to complement such measures with those related to corporations.

To elaborate on the various levels of the hierarchy, a very elementary (level 1) target is for non-human animals to be acknowledged in existential terms. One does not need to go very far back in history to find locations where the existence of certain groups of human individuals and their needs was denied or ignored and therefore considered irrelevant for policymaking.⁷ Likewise, the existence of non-human animals' needs is still ignored in several jurisdictions throughout the world. A rather self-evident indicator for this level would be the acknowledgement of both domesticated and wild animals' sentience in national legislation or policy as well as corporate social responsibility (CSR) policies, processes and reporting.

After the target of being acknowledged has been met, the next step up in the hierarchy (level 2) would be the satisfaction of basic needs. This goal is underpinned by welfarist views which approve of non-human animals being used for human purposes as long as the animals are treated "compassionately" and attempts are made to minimise their suffering. In the case of domesticated animals, an adequate level of welfare has been defined in the form of the widely spread five freedoms, which were originally developed by Britain's Farm Animal Welfare Council in 1965. These include freedom from thirst and hunger, discomfort, pain, fear and stress as well as the freedom to express natural behaviour. Since animal welfare has been deemed an acceptable goal in several Western countries, a variety of quantitative animal welfare indicators have already been developed (for an overview, see Sandøe et al. 2019). The extent to which firms in the animal industry publicly disclose information on their performance in this respect is assessed by the Business Benchmark on Farm Animal Welfare. In addition, there are also qualitative indicators developed by the API, which can be considered to measure progress towards

Table 29.1 Hierarchical approach to accounting for animal rights

<i>Domesticated animals</i>	<i>Wild animals</i>
Level 4	
Advanced rights	
<p>Goal: Abolishment of all use by humans</p> <p>Measures of progress towards goal:</p> <ol style="list-style-type: none"> 1. A ban on all the remaining uses of non-human animals for human purposes 2. Number of non-human animals used for food and as companions 	<p>Goal: Sovereignty</p> <p>Measures of progress towards goal:</p> <ol style="list-style-type: none"> 1. Legislation granting sovereignty to wild animals 2. Share of land area dedicated mainly to non-human animals
Level 3	
Basic rights	
<p>Goal: Right not to be made to suffer; right not to be killed by humans</p> <p>Measures of progress towards goal:</p> <ol style="list-style-type: none"> 1. The establishment of dedicated animal rights body within government 2. Legislation granting citizenship to domesticated animals 3. A ban on: <ol style="list-style-type: none"> i) animal experiments that induce suffering and/or death of the animals ii) industrial farming and the raising of animals for their flesh iii) breeding certain species iv) animal fights v) cultural practices that induce suffering and/or death of animals 4. Number of animals used/killed in categories 3i–ii 5. Decrease in use of animal-originated foodstuffs in local and national government canteens, cafeterias and restaurants (e.g. in percentage terms) 6. Decrease in corporate use of animals (e.g. in kilograms) 7. Increase in corporate use of non-animal materials (e.g. number of animal-free products in portfolio; investments in R&D; number of patents) 	<p>Goal: Right not to be made to suffer; right not to be killed purposefully by humans</p> <p>Measures of progress towards goal:</p> <ol style="list-style-type: none"> 1. The establishment of dedicated animal rights body within government 2. A ban on: <ol style="list-style-type: none"> i) fur farming ii) the use of wild animals in circuses iii) recreational hunting and fishing iv) keeping specific animal species in zoos* v) routine deforestation and other forms of habitat destruction vi) greenhouse gas emissions and other forms of pollution 3. Number of animals used/killed in categories 2i–iv 4. Biodiversity accounting indicators currently in use (e.g. IUCN Red List) 5. Decrease in corporate land use because of wild animals 6. Decrease in corporate activities affecting wild animals (e.g. use of palm oil which has a detrimental effect on the habitats of orangutans)
Level 2	
Basic needs	
<p>Goal: Five freedoms (freedom from hunger, discomfort, pain, fear; freedom to express natural behaviour)</p> <p>Measures of progress towards goal:</p> <ol style="list-style-type: none"> 1. Animal protection laws that prohibit causing animal suffering either by a deliberate act of cruelty or by a failure to act* 	<p>Goal: Freedom from excessive harm inflicted by humans</p> <p>Measures of progress towards goal:</p> <ol style="list-style-type: none"> 1. Animal protection laws that prohibit causing animal suffering either by a deliberate act of cruelty or by a failure to act*

(continued)

Table 29.1 Cont.

<i>Domesticated animals</i>	<i>Wild animals</i>
2. Rules and regulations pertaining to the welfare of (i) companion animals, (ii) working animals and (iii) animals used in science**	2. Rules and regulations pertaining to the welfare of captive wild animals (in zoos, circuses, etc.)**
3. The establishment of a dedicated animal welfare body or bodies within government*	3. Laws restricting land use because of possible harm to wild animals
4. Business Benchmark on Farm Animal Welfare (BBFAW)	4. The welfare needs of captive wild animals are recognised in corporate social responsibility policies, processes and reporting
5. Animal welfare indicators currently in use	
Level 1	Acknowledgement
Goal: To be considered as individuals with interests relevant to policy-making	Goal: To be considered as individuals with interests relevant to policy-making
Measures of progress towards goal:	Measures of progress towards goal:
1. Animal sentience is formally recognised in legislation and/or policy*	1. Animal sentience is formally recognised in legislation and/or policy*
2. Animal sentience is recognised in corporate social responsibility policies, processes and reporting	2. Animal sentience is recognised in corporate social responsibility policies, processes and reporting.

* Indicator taken as such from Animal Protection Index (API).

** Indicator modified from an API indicator.

the goal of meeting non-human animals' basic needs. These include the existence of animal protection laws that prohibit causing animal suffering; the existence of rules and regulations pertaining to the welfare of companion animals, working animals and animals used in scientific experiments; as well as the existence of a dedicated animal welfare body within government.

As concerns wild animals, the welfarist goal related to satisfaction of basic needs translates in our framework to freedom from excessive harm inflicted by human beings. We suggest that appropriate measures for tracking progress towards this aim would include the same API indicator as for domesticated animals, namely, the existence of animal protection laws that prohibit causing animal suffering. Likewise, a pertinent API indicator is the existence of rules and regulations related to the welfare of wild animals kept in circuses, zoos or other institutionalised forms of captivity. Other suggested indicators include the existence of laws restricting land use on the grounds of possible harm inflicted on wild animals as well as the recognition of the basic needs of captive wild animals in CSR policies, processes and reporting.

The third-level target in our framework is the attainment of basic rights, in other words non-human animals' right not to be made to suffer and the right not to be killed by humans (Cochrane 2012). This target is remarkably more ambitious and radical than the welfarist goals that are gaining traction at least in several European countries. In the case of domestic animals, progress towards the attainment of basic rights could be measured by advances in legislation, such as the establishment of a dedicated animal rights body within government and the introduction of laws granting citizenship to such animals. Additional qualitative measures include

laws banning animal experiments that induce suffering and/or the death of the animals; industrial farming and raising animals for their flesh; breeding species that suffer; and animal fights as well as cultural practices such as rituals that induce suffering and/or death of the animals. Quantitative indicators in turn could include estimates of the number of animals used or killed in each of the preceding activities. Alongside these, it might be informative to measure decreases in the use of animal-originated foodstuffs in government canteens and cafeterias. Corresponding indicators for companies could include decrease in the use of animal-derived materials, measured, for instance, in kilograms, or increase in the use of non-animal-derived materials (e.g. share of animal-free products in portfolio; investments in associated research and development activities as well as number of associated patents).

The basic rights of wild animals would include the same targets as for domesticated animals, namely, the right not to be made to suffer and the right not to be killed by humans. Likewise, a measure for the third-level goal would be the establishment of a dedicated animal rights body within government. Other qualitative indicators would include a ban on fur farming, the use of wild animals in circuses, recreational hunting and fishing, keeping of great apes and cetaceans in zoos; as well as forms of habitat destruction, greenhouse gas emissions and pollution. Quantitative indicators in turn would include estimating the number of non-human animals used or killed in each of the preceding activities. We also consider individual wild animal's right not to be killed by humans to cover the right not to become extinct. Therefore, we suggest that progress towards this right should be measured with biodiversity/extinction accounting indicators that have already developed, such as the Red List compiled and updated by the International Union for the Conservation of Species (IUCN). In terms of corporate indicators, possible examples include decrease in corporate land use because of potential harm inflicted on wild animals as well as decrease in corporate activities that affect wild animals. For instance, the logging associated with the sourcing of palm oil from Southeast Asia has been found to reduce the habitats of orangutans.

Finally, the highest level target in the framework is the achievement of advanced rights, derived from the deontological interpretation of animal rights which advocates the abolishment of all use of domesticated animals by human beings and all human interference with wild animals' lives. Since many forms of animal use have already been banned on a lower level of the hierarchy, all that remains to be banned on the highest level are some forms of using animals for food (e.g. free-range egg and dairy production) and as companions. Progress towards this goal can be measured by the number of chickens, cows and pets. For wild animals, advanced rights entail sovereignty granted through legislation. An example of a quantitative measure would be the share of land dedicated completely to these animals without fear of human infringement or invasion.

Conclusion

In this chapter, we have tried to tackle the question of how to account for animal rights. In doing so, we first reviewed literature in animal ethics, particularly the debate concerning the moral value of non-human animals and the political implications thereof. Based on these theoretical ideas, we then proposed a hierarchical framework that outlines a phased approach towards the attainment of animal rights, beginning from the acknowledgement of animal sentience, proceeding through basic needs and basic rights to advanced rights. We also suggested some qualitative and quantitative indicators that could be utilised to account for the progress. Some of the indicators were derived from the API and others were our own ideas.

A point briefly mentioned in the preceding section is worth emphasising, namely, the alignment of nature conservation targets and animal rights. Conserving large tracts of land from deforestation and other forms of destruction is beneficial for the diversity of both plant and animal species. It thus makes sense for ecological conservationists and animal rights proponents to join forces.

Few remaining questions are, “who would apply the framework developed in this chapter?” “Who would collect, compile and report the data, and to what effect?” “Which kind of institutional arrangements would be required to frame and support such activities?” Starting from existing entities, one obvious candidate to collect the data could be the group of non-governmental animal protection organisations that developed the API. At least the political and legislative indicators included in our framework would be compatible with the API’s scope of measuring progress in nation states. As concerns the indicators related to corporate progress, in the first instance these could be picked up voluntarily by frontrunner companies from which they would diffuse to other organisations. It is noteworthy that some industries (e.g. production and pharmaceuticals) would be more implicated by this theme than others, and might not readily disclose their performance information. However, if voluntary action was considered insufficient, institutional arrangements could be put in place. Progressive governments could, for instance, stipulate the inclusion of such indicators in corporate reports. Moving from existing entities to those envisioned in the framework, data required to measure progress towards animal rights could also be compiled by animal welfare or animal rights bodies established within government. These bodies might also be tasked with the reconciliation of the conflicts of interest that are bound to arise between non-human animals and human beings as well as between different species of non-human animals. At some point time might also be ripe for a transnational animal rights body (Cochrane 2014), which could track global progress.

As a final thought, we acknowledge that sometimes well-intended attempts to account for those near and dear to us might paradoxically end up distancing them from us (Hines 1991). This is why the development of qualitative indicators alongside quantitative ones is of paramount importance.

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Notes

- 1 To put things into perspective, the biomass of farmed animals is already double the human biomass and 20 times the biomass of wild megafauna (Bar-On et al. 2018), and this development is expected to continue during the next decades.
- 2 Sometimes also referred to as “extinction accounting” (Cuckston 2018; Weir 2018)
- 3 For a discussion on critical dialogic accountability systems involving non-human constituents, see Dillard and Vinnari (2019).

- 4 Singer (1975) was also criticised by those who considered his work too radical and dangerous. However, reviewing such arguments is beyond the scope and space limitations of this chapter.
- 5 Donaldson and Kymlicka (2011) also consider a third group, liminal animals, with which they refer to rats, bats, city foxes and other wild animals that have voluntarily come to live among human beings. However, for the sake of simplicity, we have chosen not to place liminals in a separate category in our framework.
- 6 <https://api.worldanimalprotection.org/>
- 7 In some cultures, this can be still the case for women, certain societal classes (e.g. untouchables in India) or sexual minorities.

References

- Aaltola, E., 2012. *Animal Suffering: Philosophy and Culture*. Basingstone: Palgrave MacMillan.
- Allievi, F., Vinnari, M. and Luukkanen, J., 2015. Meat consumption and production—analysis of efficiency, sufficiency and consistency of global trends. *Journal of Cleaner Production*, 92 (1), 142–151.
- Barnosky, A., 2008. Megafauna biomass tradeoff as a driver of quaternary and future extinctions. *PNAS*, 105 (suppl. 1), 11543–11548.
- Bar-On, Y.M., Phillips, R. and Milo, R., 2018. The biomass distribution on Earth. *PNAS*, 115 (25), 6506–6511.
- Cochrane, A., 2012. *Animal Rights without Liberation*. New York, NY: Columbia University Press.
- Cochrane, A., 2014. *Sentientist Politics: A Theory of Global Inter-Species Justice*. Oxford: Oxford University Press.
- Cawthorn, D. and Hoffman, L., 2014. The role of traditional and non-traditional meat animals in feeding a growing and evolving world. *Animal Frontiers*, 4 (4), 6–12.
- Ceballos, G., Ehrlich, P.R. and Dirzo, R., 2017. Biological annihilation via the ongoing sixth mass extinction signaled by vertebrate population losses and declines. *PNAS*, 114 (30), E6089–E6096.
- Cuckston T., 2018. Making extinction calculable. *Accounting, Auditing and Accountability Journal*, 31 (3), 849–874.
- Dillard, J. and Vinnari, E., 2017. A case study of critique: Critical perspectives on critical accounting. *Critical Perspectives on Accounting*, 43, 88–109.
- Dillard, J. and Vinnari, E., 2019. Critical dialogical accountability: From accounting-based accountability to accountability-based accounting. *Critical Perspectives on Accounting*, 62, 16–38.
- Donaldson, S. and Kymlicka, W., 2011. *Zoopolis: A Political Theory of Animal Rights*. Oxford: Oxford University Press.
- Francione, G., 1996. *Rain without Thunder: The Ideology of the Animal Rights Movement*. Philadelphia: Temple University Press.
- Francione, G., 2010. The abolition of animal exploitation. In: G. Francione and R. Garner, eds. *The Animal Rights Debate. Abolition or Regulation?* New York, NY: Columbia University Press, pp. 1–103.
- Gray, R., Bebbington, J. and Gray, S., eds., 2010. *Social and Environmental Accounting. Volume 1. Laying Foundations*. London: Sage.
- Hines, R., 1991. On valuing nature. *Accounting, Auditing & Accountability Journal*, 4 (3), 27–29.
- Jones, M., ed., 2014. *Accounting for Biodiversity*. London: Routledge.
- Jones, M.J. and Solomon, J.F., 2013. Problematising accounting for biodiversity. *Accounting, Auditing & Accountability Journal*, 26 (5), 668–687.
- Machovina, B., Feeley, K., and Ripple, W., 2015. Biodiversity conservation: The key is reducing meat consumption. *Science of the Total Environment*, 536, 419–431.
- Maslow, A., 1954. *Motivation and Personality*. New York, NY: Harper.
- McLaren, J. and Appleyard, T., 2019. Improving accountability for farm animal welfare: The performative role of a benchmark device. *Accounting, Auditing and Accountability Journal*. In press. <https://doi.org/10.1108/AAAJ-06-2017-2955>
- Mepham, T. B., 2006. The ethical matrix as a decision-making tool with specific reference to animal sentience. In: J. Turner and J. D’Silva, eds. *Animals, Ethics and Trade*. London: Earthscan, pp. 134–145.
- Rachels, J., 1990. *Created from Animals—The Moral Implications of Darwinism*. Oxford: Oxford University Press.
- Ramanathan, K.V., 1976. Toward a theory of social accounting. *The Accounting Review*, 51 (3), 516–528.
- Rimmel, G. and Jonäll, K., 2013. Biodiversity reporting in Sweden: Corporate disclosure and preparers’ views. *Accounting, Auditing & Accountability Journal*, 26 (5), 746–778.

- Ripple, W.J. et al., 2014. Status and ecological effects of the world's largest carnivores. *Science*, 343 (6167), 1241484.
- Ripple, W.J. et al., 2015. Collapse of the world's largest herbivores. *Science Advances*, 1 (4), 1–12.
- Sandøe, P. et al., 2019. Benchmarking farm animal welfare – Ethical considerations when developing a tool for cross-country comparison. In: E.Vinnari and M.Vinnari, M., eds. *Sustainable Governance and Management of the Food System: Ethical Perspectives*. Wageningen: Wageningen Academic Press.
- Singer, P., 1975. *Animal Liberation: A New Ethics for Our Treatment of Animals*. London: HarperCollins.
- Walters, K. and Portmess, L., 1999. *Ethical Vegetarianism - From Pythagoras to Peter Singer*. Albany, NY: State University of New York Press.
- Weir, K., 2018. The purposes, promises and compromises of extinction accounting in the UK public sector. *Accounting, Auditing & Accountability Journal*, 31 (3), 875–899.