

Should We Ascribe Capabilities to Sentient Animals? A Critical Analysis of the Extension of Nussbaum's Capabilities Approach

Anders Melin and David Kronlid

Originally, the Capabilities Approach had a strong anthropocentric orientation because of its focus on the entitlements of individual humans. However, as a part of the interest to employ it within animal and environmental ethics, it has been discussed whether the Capabilities Approach should consider also non-human life forms for their own sake. The most influential and elaborated contribution to this debate is Martha Nussbaum's extension of the Capabilities Approach to include sentient animals. In this article, we argue that Nussbaum's ascription of capabilities to animals is problematic, since the concept of a capability normally denotes an opportunity to choose between different functionings. When Nussbaum ascribes capabilities to animals, the concept seems to simply denote specific abilities. Such a use is problematic since it waters down the concept and makes it less meaningful, and it may obscure the fact that normal, adult humans, in contrast to sentient animals, can act as conscious moral agents. The aim of granting moral status to sentient animals can be achieved more convincingly by describing our moral relationship to animals in terms of the functionings we should promote, instead of ascribing capabilities to them.

Introduction

The Capabilities Approach has become increasingly influential as a theoretical approach to social justice and development. Recently, it has also been applied to questions of animal and environmental ethics.¹ Originally, the Capabilities Approach had a strong

¹ See, for example, Catherine Butler and Peter Simmons, 'Framing Energy Justice in the UK: The Nuclear Case', in *Energy Justice in a Changing Climate: Social equity and low-carbon energy*, edited by Karen Bickerstaff, Gordon Walker and Harriet Bulkeley (London: Zed Books, 2013), pp. 139-157; Jozef Keulartz, Jac. A. A. Swart, 'Animal Flourishing and Capabilities in an Era of Global Change', in *Ethical Adaptation to Climate Change*, edited by Allen Thompson and Jeremy Bendik-Keymer

anthropocentric orientation because of its focus on the entitlements of individual humans. However, as part of the interest to employ it within animal and environmental ethics, it has been discussed whether the Capabilities Approach should take also non-human life forms into consideration for their own sake. The most influential and elaborated contribution to this debate is Martha Nussbaum's extension of the Capabilities Approach to include sentient animals.² Although there has been some critical discussion of her proposal,³ most of the critics focus on the problematic practical consequences of her approach, especially of her list of animal capabilities, rather than on the more fundamental question whether it is at all appropriate to ascribe capabilities to animals. It is this latter question we want to discuss here. This is an important issue to analyze since the concept of capability was originally developed to be applied to normally functioning adult humans, and it is far from evident that it can be applied to non-humans.

A Brief Account of the Capabilities Approach

The Capabilities Approach was developed by Amartya Sen as an alternative to traditional Utilitarian approaches to welfare economics and has since been expanded into a more general theory of justice by, for example, Martha Nussbaum.⁴ It is generally understood as a framework for different normative judgements, for example, the

(Cambridge, MA: The MIT Press, 2012), pp. 123-144; Breena Holland, 'Environment as Metacapability: Why a Dignified Human Life Requires a Stable Climate System' in *Ethical Adaptation to Climate Change*, edited by Allen Thompson and Jeremy Bendik-Keymer (Cambridge, MA: MIT Press, 2012), pp. 145-164; Kyoko Kusakabe (ed.), *Gender, Roads, and Mobility in Asia* (Bourton on Dunsmore, UK, Practical Action, 2012) and David O. Kronlid, *Human Capabilities and Climate Change Adaptation*, (New York, NY: Palgrave MacMillan, 2014).

² Martha C. Nussbaum, "'Beyond Compassion and Humanity": Justice for Non-Human Animals' in *Animal Rights: Current Debates and New Directions*, edited by Cass R. Sunstein and Martha C. Nussbaum (Oxford: Oxford University Press, 2005), pp. 299-320; Martha C. Nussbaum, *Frontiers of Justice: Disability, Nationality, Species Membership* (Cambridge, MA: The Belknap Press of Harvard University Press, 2006); Martha C. Nussbaum, 'Human Dignity and Political Entitlements', in *Human Dignity and Bioethics. Essays Commissioned by the President's Council on Bioethics* (Washington, D.C., 2008), pp. 351-380.

³ See, for example, John P. Clark, 'Capabilities Theory and the Limits of Liberal Justice: On Nussbaum's *Frontiers of Justice*', *Human Rights Review* 10:4 (2009), pp. 583-604; Marcel Wissenburg, 'The Lion and the Lamb: Ecological Implications of Martha Nussbaum's Animal Ethics', *Environmental Politics* 20:3 (2011), pp. 391-409; Ramona Ilea, 'Nussbaum's Capabilities Approach and Nonhuman Animals: Theory and Public Policy', *Journal of Social Philosophy* 39:4 (2008), pp. 547-563; Simon Hailwood, 'Bewildering Nussbaum: Capability Justice and Predation', *The Journal of Political Philosophy* 20:3 (2012), pp. 293-313; Katy Fulfer, 'The Capabilities Approach to Justice and the Flourishing of Non-sentient Life', *Ethics & The Environment* 18:1 (2013), pp. 19-38; David Schlosberg, *Defining Environmental Justice: Theories, Movements, and Nature* (Oxford: Oxford Scholarship Online, 2007) and Elizabeth Cripp, 'Saving the Polar Bear, Saving the World: Can the Capabilities Approach Do Justice to Humans, Animals and Ecosystems?', *Res Publica* 16:1 (2010), pp. 1-22.

⁴ See, for example, Amartya Sen, *Commodities and Capabilities* (New Delhi: Oxford India Paperbacks, 1999); Amartya Sen, *Development as Freedom* (New York: Anchor Books, 1999); Martha C. Nussbaum, *Women and Human Development: The Capabilities Approach* (Cambridge: Cambridge University Press, 2000) and Nussbaum, *Frontiers of Justice*.

assessment of individual well-being and the assessment of social conditions. It focuses on what people can be or do, such as their opportunities to learn, enjoy social relationships, and be mobile, in contrast to other accounts of well-being, which are exclusively concerned with subjective categories, such as happiness, or on the means to well-being, such as wealth or income.⁵

'Functionings' and 'capabilities' are two fundamental concepts within the Capabilities Approach. Functioning refers to what people actually are or do, such as being mothers or fathers, expressing themselves through art works or being volunteers in NGOs. They can be both complex and very elementary, such as the functioning to be well-nourished. Capability refers to the opportunity to function in a certain way. A key element of the Capabilities Approach is the emphasis on personal freedom concerning how one wants to live one's life. Accordingly, Nussbaum states that in the case of adult citizens, a fair distribution of capabilities, rather than functionings, should be the political goal. This means that persons should be given the opportunity to, for example, have leisure time or to live in sexual relationships if this is the kinds of functionings that they value, or they should still be allowed to work 14 hours a day or to live in celibacy if these are the kind of functionings they value instead.⁶ Along the same lines, Sen also distinguishes between functionings and capabilities, and argues that it is an essential part of a good human life to be able to exercise choice.⁷

Nussbaum's Extension of the Capabilities Approach to Animals

As stated above, Nussbaum's early formulations of the Capabilities Approach are concerned only with entitlements of human beings. One central tenet in her early formulation of the Capabilities Approach is that certain capabilities should be assigned to all normally functioning adult humans, since they are beings with a capacity to consciously form their lives. The concept of capability is closely linked to the concept of human dignity.⁸ However, in *Frontiers of Justice* and some other later works Nussbaum argues that sentient animals should be included in a theory of justice. She formulates her own view of our moral relationship to sentient animals partly based on a critique of Kantian social contract theory. Such theories reject that humans have obligations of justice to non-human animals, because they suppose that the human form of rationality is the only ground of dignity and because they describe political principles as deriving from a contract among equals. According to Nussbaum, such theories should be criticized for two reasons: we need to recognize that many non-human animals possess a high level of intelligence, and we should reject the idea that only beings who can join a contract as equals can be subjects of justice. She is critical of Rawls's theory, which she sees as a form of Kantian social contract theory, since he denies that our behaviour towards animals should be regulated by principles of justice. Nussbaum criticizes Rawls' contract theory for not taking into account how intelligent animals are and how capable they are of

⁵ Ingrid Robeyns, 'The Capability Approach', *Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, online at <http://plato.stanford.edu/entries/capability-approach>, (accessed 2015-02-10).

⁶ Nussbaum, *Women and Human Development*, pp. 87-88.

⁷ Amartya Sen, *Inequality Reexamined* (Oxford: Oxford Scholarship Online, 2003), pp. 40-42.

⁸ See, for example, Nussbaum, *Women and Human Development*, pp. 71-72.

forming complex relationships. For Rawls, only beings that have a capacity for a conception of the good and a capacity for a sense of justice can be considered moral persons, and only moral persons are entitled to be treated with justice. However, Rawls admits that we can have duties of compassion towards animals since they can feel pleasure and pain.⁹

Nussbaum believes that the contract doctrine is inappropriate for handling ethical issues related to animals since we cannot conceive of animals as being participants in a contract. Contrary to Rawls, Nussbaum argues that our treatment of animals also raises issues of justice. She says that it is not only morally wrong to treat them badly; it is unjust since they have a moral entitlement not to be mistreated. The capabilities approach sees individual animals as agents and subjects, as creatures that are ends in themselves. Animals are active beings that have a good and they are entitled to pursue that good. It is not enough to regard them as objects of compassion, since such a view does not acknowledge the fact that someone is to blame if they are made to suffer. Humans should not only look upon animals with compassion, instead we should also avoid and hinder acts that cause them suffering.¹⁰

For Nussbaum the concept of capabilities is closely linked to the concept of dignity, since she understands the promotion of capabilities as a way of realizing a life with human dignity. She states that 'dignity is not defined prior to and independently of the capabilities, but in a way intertwined with them and their definition'.¹¹ As Nussbaum points out herself, her view of dignity has evolved over time. In *Women and Human Development*, she describes dignity as a unique human characteristic by pointing out that humans have a way of performing certain functions, such as eating, which is distinctly human. To live a dignified human life is to exercise one's rational powers and to consciously form one's life in cooperation with others.¹² However, in later works, Nussbaum points out that non-human sentient animals possess dignity since they, too, are complex living beings with capacities for activity.¹³ Nussbaum argues that the Capabilities Approach should include the moral belief that every sentient animal should be able to live a flourishing life with the type of dignity relevant to the species to which it belongs.¹⁴

One important reason why Nussbaum wants to ascribe capabilities to animals is that she emphasizes the similarities between humans and animals. According to her view, also other animals have forms of rationality, and the human rationality is just one specific form of practical reasoning.¹⁵ Nussbaum points out that some characteristics that often have been regarded as uniquely human, such as practical intelligence, altruism and empathy, can be found also in animals.¹⁶

⁹ Nussbaum, *Frontiers of Justice*, pp. 327-332.

¹⁰ *Ibid.*, pp. 329-338.

¹¹ *Ibid.*, p. 162.

¹² Nussbaum, *Women and Human Development*, pp. 71-72.

¹³ Nussbaum, 'Human Dignity and Political Entitlements'.

¹⁴ Nussbaum, *Frontiers of Justice*, p. 351.

¹⁵ *Ibid.*, pp. 159-160.

¹⁶ *Ibid.*, p. 363.

A Critical Discussion of Nussbaum's Extensionism

We welcome Nussbaum's attempt to integrate concern for animals for their own sake within the framework of the Capabilities Approach. Such a move is important if we want to apply the Capabilities Approach to individual and collective actions, which affect the lives of animals. Her argumentation is in line with recent trends within ethics. It has become increasingly common to accept the moral belief that also animals should be taken into account for their own sake and that animals should be included within the sphere of justice. However, we do not think that ascribing capabilities to animals is a convincing way to integrate concern for them for their own sake within the Capabilities Approach. The main reason is that according to the common definition of what a capability is, it seems to require the unique human ability to make rationally considered choices.

First of all, Nussbaum has a tendency to emphasize the similarities between humans and sentient animals, but she pays less attention to the morally relevant differences. She seems right in claiming that Western philosophy has often neglected the ability of sentient animals to be agents and subjects. The view that we should recognize that also animals can be agents is common in today's ethical debate. Sue Donaldson and Will Kymlicka, for example, criticize the tendency within traditional animal rights theories to conceive of humans as the primary agents of the relationships between humans and animals. Instead, they argue that also animals have the capacity of agency. They can either choose to live close to human settlements to take advantage of the opportunities it brings, or choose to avoid humans.¹⁷ Moreover, Donaldson and Kymlicka claim that some animals also have a form of morality. Similar to Nussbaum, they emphasize that some social mammals, such as primates and canids, can exhibit altruistic behaviour. Furthermore, some mammals can develop and act according to social norms.¹⁸

However, what is lacking in Nussbaum's discussion about the alleged capabilities of animals is a more detailed understanding of what distinguishes animals from humans. Her argumentation is unconvincing since she does not show why we should ascribe capabilities also to animals, in spite of these differences. Even if we agree that animals can be agents, we can still claim that humans have a unique ability to reflect on their ends of their actions. It can be argued that there is not only a quantitative, but also a qualitative difference between human rationality and the rationality of sentient animals. Humans are not only more intelligent, but also have a unique level of self-awareness. Even if we agree with the idea that animals have a form of morality, we can still argue that humans have a unique ability to make conscious moral choices.

The differences between animals and humans are described in a persuasive way by Gary E. Varner, who argues that humans have a unique level of self-consciousness.¹⁹ He is critical of the standard belief that humans differ from animals since they are rational, make and use tools, and have a language, since scientific studies have shown that some animals also have these characteristics to some degree. However, Varner states

¹⁷ Sue Donaldson and Will Kymlicka, *Zoopolis: A Political Theory of Animal Rights* (Oxford: Oxford University Press, 2011), pp. 65-66.

¹⁸ Donaldson and Kymlicka, *Zoopolis*, pp. 117-118. The belief that animals have some form of morality is also defended in Marc Bekoff and Jessica Wild, *Wild Justice: The Moral Lives of Animals* (Chicago: University of Chicago Press, 2010).

¹⁹ Gary E. Varner: *Personhood, Ethics, and Animal Cognition: Situating Animals in Hare's Two Level Utilitarianism* (Oxford: Oxford Scholarship Online, 2012).

that what makes humans different from animals is our complex use of language.²⁰ He makes a distinction between three kinds of sentient beings: (1) persons, (2) near-persons, and (3) the merely sentient.²¹ Only humans can be considered persons, since only humans have a biographical sense of self. Only humans can conceive of their lives as a story with a past, a present and a future, since it requires the use of a highly complex language. Normal adult humans create their identity by shaping an autobiographical narrative, either explicitly or implicitly. It is this ability, which makes normal, adult humans morally responsible for their actions.²² Varner claims that some animals, such as primates and dolphins, can be considered near-persons, since they can be conscious of their immediate past and future. However, there is no good evidence that they can have the biographical sense of self that normal, adult humans have. Although some primates have been taught sign language, they have not been able to learn a sufficiently complex language that enables them to develop a biographical sense of self.²³

Varner states that there is some evidence for the fact that also some animals, and not only humans, can have second-order desires, that is, desires about one's desires.²⁴ However, normal, adult humans do not only have simple second-order desires, but also a certain conception of what kind of person they want to become and how they ought to act in order to become such a person. They have a greater ability than animals to reflect on the purposes of their actions.²⁵

According to the common understanding of the concept of capability, it cannot be applied to sentient animals since it is defined in contrast to the concept of functioning. It was originally developed to acknowledge the importance of having freedom of choice in areas that are specifically human, for example, the importance of being able to choose which occupation one wants to have and what religion one wants to belong to. The Capability Approach emphasizes the value of personal choice and the ability to distance oneself from cultural traditions or one's immediate desires. According to the common definition of the concept of capability, it requires the ability to reflect on what purposes one wants to achieve in life and the ability to choose between different options, based on these reflections. Such reflections can concern what choices are compatible with one's long-term interests and one's moral ideals. As far as we know, only normal, adult humans (not young children or adult humans with serious mental disabilities) can make such choices.²⁶

Even if one agrees with Nussbaum's statement that sentient animals have the ability to act intelligently in order to reach certain ends, we should not infer that they have the same ability as humans to question those ends. As stated above, it can be argued that sentient animals cannot reflect on what purposes they want to achieve in the way

²⁰ A similar conclusion is defended from an Aristotelian point of view in Alasdair MacIntyre, *Dependent Rational Animals: Why Human Beings Need the Virtues* (Chicago, IL: Open Court, 1999).

²¹ Varner, *Personhood, Ethics, and Animal Cognition*, pp. 134-135.

²² *Ibid.*, pp. 135-143.

²³ *Ibid.*, pp. 148-155.

²⁴ For a discussion of the distinction between first and second order desires, see, for example, Harry G. Frankfurt, 'Freedom of the Will and the Concept of a Person', *Journal of Philosophy* 68:1 (1971), pp. 5-20.

²⁵ Varner, *Personhood, Ethics, and Animal Cognition*, pp. 169-170.

²⁶ Nussbaum's ascription of capabilities to humans with serious mental disabilities in *Frontiers of Justice* can also be questioned, but that is an issue that we do not discuss here.

that normal, adult humans can. Therefore, Nussbaum's ascription of capabilities to sentient animals is ambiguous.

It is of course possible to use the concept of capability in different senses when applying it to humans and sentient animals, respectively. This is what Nussbaum seems to do in *Frontiers of Justice*. In the first chapter, she refers to the same distinction between capabilities and functionings that she has put forward in earlier works, such as *Women and Human Development*. Nussbaum points out that the political goal should be to promote people's opportunities rather than to force them into certain functionings. For example, people should be allowed to vote in elections or to practice a religion, but they should not be forced to do so.²⁷ In this context Nussbaum seems to presuppose that having a capability requires having the ability to choose to perform or refrain from certain kinds of actions, based on reflections on what ends one wants to achieve. This presupposition is in line with her emphasis on the value of practical reasoning and on the human ability to form one's life in cooperation with others, which characterizes her view of capabilities in earlier works.²⁸

However, when Nussbaum describes the capabilities of animals, she seems to use the concept in another sense. She describes, for example, a tiger's behaviour to kill prey animals as a capability.²⁹ Since she recognizes that a tiger cannot make a conscious decision not to kill prey animals, she does not seem to assume in this context that having a capability presupposes having an ability to make conscious choices based on reflection on what ends one wants to achieve. In this context, the concept of capability seems to denote simply an ability to act in a specific way.

Nussbaum sometimes describes the capabilities of animals as basic, innate capabilities.³⁰ This concept comes from *Woman and Human Development* in which Nussbaum distinguishes between basic, internal and combined capabilities. The concept of basic capabilities denotes the innate characteristics of humans that are needed for developing more advanced capabilities. Some of the capabilities of a newborn child can function directly, such as the capability for seeing, while others are rudimentary, such as the capability for love and gratitude. Internal capabilities are developed states of an individual, which enables him or her to exercise different functionings, such as the functioning of political participation. Finally, combined capabilities are internal capabilities combined with the external conditions that are necessary for the exercise of certain functionings. For example, in order to have the combined capability of political participation, one needs not only an internal capability, but also certain social and political conditions.³¹

If we assume that the ability of seeing of a human infant can be categorized as a capability, then it also seems appropriate to categorize the different abilities of sentient animals as capabilities. However, to regard the ability of seeing of a human infant as a capability seems to conflict with the understanding of a capability as an opportunity to make a rationally considered choice between different functionings, which Nussbaum

²⁷ Nussbaum, *Frontiers of Justice*, pp. 79-80. See also Nussbaum, *Women and Human Development*, pp. 87-88.

²⁸ See, for example, Nussbaum, *Women and Human Development*, pp. 71-72.

²⁹ Nussbaum, *Frontiers of Justice*, p. 370.

³⁰ *Ibid.*, p. 361.

³¹ Nussbaum, *Women and Human Development*, pp. 84-85.

puts forward in other parts of *Woman and Human Development*. If we understand a capability as merely an ability, it is questionable whether we can maintain the distinction between capabilities and functionings.

By using the concept of a capability to denote simply an ability, Nussbaum waters down the concept and makes it less meaningful. Such a use of the concept of capability seems to conflict with the general emphasis on freedom of choice within the Capabilities Approach. One important purpose for introducing the concept of capability is to emphasize that a dignified human life requires the opportunity to choose between different functionings. According to the Capabilities Approach, a woman who has been taught that education is not for women and who lives her life as a housewife does not live a dignified human life, in spite of the fact that she has no preference for education. By using the concept of capability to denote simply a specific ability, we lose some of the focus on the value of freedom of choice within the Capabilities Approach.

Moreover, by ascribing capabilities both to normal, adult humans and sentient animals we risk obscuring the morally important difference between them. Normal, adult human beings have a moral responsibility for their actions that sentient animals do not have. For example, to state that a human have a capability to kill sentient animals is different from stating that a tiger has the same capability, since a human can be morally blamed for killing an animal, while a tiger cannot. Nussbaum points out that animals can exhibit altruistic behaviour but having the ability to act altruistically is not the same as having the ability to make rationally considered moral choices, since the latter requires an ability to reflect on what purposes one wants to achieve.

In general, the purpose to grant moral status to sentient animals can be achieved in a more convincing way than by ascribing capabilities to them. The distinction between capabilities and functionings that is central for the Capabilities Approach is not applicable to sentient animals, since they do not have the same ability as humans to reflect on the purposes of their actions. Therefore, we can describe our moral relationship to sentient animals solely in terms of what functionings we should promote. Nussbaum argues herself that promoting functionings, rather than capabilities, should in many cases be an appropriate political goal for people with severe mental impairments since they have a limited ability to make considered choices.³² The same line of reasoning could also be applied to animals. Even though the concept of functioning is normally used within the Capabilities Approach to denote the options that individuals with capabilities can choose between, functionings do not necessarily imply a freedom to choose since they can be very elementary, such as the functioning of a tiger to kill prey animals.

Nussbaum claims that we ought to respect the dignity of sentient animals and that we therefore should promote their alleged capabilities, but such a respect is better expressed in terms of the functionings we should promote. We should acknowledge that we normally mean something else when we claim that we should respect the dignity of humans and animals, respectively. Respecting the dignity of a human being is normally understood as a question of respecting the rationally considered choices of that individual. However, since an animal does not have the same ability to make such choices, respecting its integrity is normally understood as a question of letting it live the kind of life that is characteristic for it. One should take into consideration the set of needs

³² Nussbaum, *Frontiers of Justice*, pp. 172-173.

and interests that are related to its characteristic form of life.³³ Such an understanding of the dignity of animals recognizes that the life of an animal is much more determined by the kind of species it belongs to than the life of a human. As humans, we have many more options to choose between regarding how we want to live our lives. To take an obvious example, an animal that is born as a carnivore will remain a carnivore for the rest of its life and it cannot make a conscious choice to become a herbivore later in life, whereas a human child who is born into a family of meat-lovers and has grown up with a meat-based diet can choose to become an animal rights activist and vegetarian when he or she becomes a teenager or adult.

Conclusions

We welcome Nussbaum's attempt to integrate concern for animals for their own sake within the Capabilities Approach, but we do not believe that ascribing capabilities to animals is a persuasive way of achieving this end. According to the common definition of what a capability is, it requires the unique human ability to make rationally considered choices. Nussbaum seems right to claim that also animals should be regarded as subjects and agents, but her discussion about the alleged capabilities of animals lacks a more detailed view of what distinguishes humans from animals. Even if we agree with her claim that sentient animals are intelligent and have agency, we can still assert that humans have a higher level of self-awareness and a unique ability to reflect on the purposes of their actions.

When Nussbaum ascribes capabilities to animals, the concept seems to simply denote specific abilities. However, such a use of the concept is problematic since it waters down the concept and makes it less meaningful, and it may obscure the fact that normal, adult humans, in contrast to animals, can act as conscious moral agents. Moreover, the aim of granting moral status to sentient animals can be achieved more convincingly by describing our moral relationship to animals in terms of the functionings we should promote, instead of ascribing capabilities to them.³⁴

Anders Melin, Malmö University
anders.melin@mah.se
David Kronlid, Uppsala University
david.kronlid@edu.uu.se

³³ For such a use of the concept of dignity, see, for example, Sara Elizabeth Gavrell Ortiz, 'Beyond Welfare: Animal Integrity, Animal Dignity, and Genetic Engineering', *Ethics and the Environment* 9:1 (2004), pp. 94-120.

³⁴ This article has been written as a part of a research project on energy politics and justice, funded by the Swedish Research Council, Dnr 421-2013-781.

Bibliography

- Bekoff, Marc and Wild, Jessica. *Wild Justice: The Moral Lives of Animals*. Chicago: University of Chicago Press, 2010.
- Butler, Catherine, and Peter Simmons. 'Framing Energy Justice in the UK: The Nuclear Case', in *Energy Justice in a Changing Climate: Social Equity and Low-carbon Energy*, edited by Karen Bickerstaff, Gordon Walker and Harriet Bulkeley. London: Zed Books, 2013, pp. 139-157.
- Clark, John P. 'Capabilities Theory and the Limits of Liberal Justice: On Nussbaum's *Frontiers of Justice*', *Human Rights Review* 10:4 (2009), pp. 583-604.
- Cripp, Elizabeth. 'Saving the Polar Bear, Saving the World: Can the Capabilities Approach Do Justice to Humans, Animals and Ecosystems?', *Res Publica* 16:1 (2010), pp. 1-22.
- Donaldson, Sue and Kymlicka, Will. *Zoopolis: A Political Theory of Animal Rights*. Oxford: Oxford University Press, 2011.
- Frankfurt, Harry G. 'Freedom of the Will and the Concept of a Person'. *Journal of Philosophy*, 68:1 (1971) pp. 5-20.
- Fulfer, Katy. 'The Capabilities Approach to Justice and the Flourishing of Non-sentient Life', *Ethics & The Environment* 18:1 (2013), pp. 19-38.
- Hailwood, Simon. 'Bewildering Nussbaum: Capability Justice and Predation', *The Journal of Political Philosophy* 20:3 (2012), pp. 293-313.
- Holland, Breena. 'Environment as Meta-capability: Why a Dignified Human Life Requires a Stable Climate System', in *Ethical Adaptation to Climate Change*, edited by Allen Thompson and Jeremy Bendik-Keymer. Cambridge, MA: MIT Press, 2012, pp. 145-164.
- Ilea, Ramona. 'Nussbaum's Capabilities Approach and Nonhuman Animals: Theory and Public Policy', *Journal of Social Philosophy* 39:4 (2008), pp. 547-563.
- Keulartz, Jozef and Swart, Jac. A. A. 'Animal Flourishing and Capabilities in an Era of Global Change', in *Ethical Adaptation to Climate Change*, edited by Allen Thompson and Jeremy Bendik-Keymer. Cambridge, MA: MIT Press, 2012, pp. 123-144.
- Kronlid, David O. *Human Capabilities and Climate Change Adaptation*. New York, NY: Palgrave MacMillan, 2014.
- Kusakabe, Kyoko (ed.). *Gender, Roads, and Mobility in Asia*. Bourton on Dunsmore, UK, Practical Action, 2012.
- MacIntyre, Alasdair. *Dependent Rational Animals: Why Human Beings Need the Virtues*, Chicago, IL: Open Court 1999.
- Nussbaum, Martha C. *Women and Human Development: The Capabilities Approach*. Cambridge: Cambridge University Press, 2000.
- Nussbaum, Martha C. "'Beyond Compassion and Humanity': Justice for Non-Human Animals', in *Animal Rights: Current Debates and New Directions*, edited by Cass R. Sunstein and Martha C. Nussbaum. Oxford: Oxford University Press, 2005, pp. 299-320.
- Nussbaum, Martha C. *Frontiers of Justice: Disability, Nationality, Species Membership*. Cambridge, MA: The Belknap Press of Harvard University Press, 2006.
- Nussbaum, Martha C. 'Human Dignity and Political Entitlements', in *Human Dignity and Bioethics. Essays Commissioned By the President's Council on Bioethics*. Washington, D.C., 2008, pp. 351-380.

- Ortiz, Sara Elizabeth Gavrell. 'Beyond Welfare: Animal Integrity, Animal Dignity, and Genetic Engineering', *Ethics and the Environment* 9:1 (2004), pp. 94-120.
- Robeyns, Ingrid. 'The Capability Approach', *Stanford Encyclopedia of Philosophy*, edited by Edward N. Zalta, online at <http://plato.stanford.edu/entries/capability-approach> (accessed 2015-02-10).
- Schlosberg, David. *Defining Environmental Justice: Theories, Movements, and Nature*. Oxford: Oxford Scholarship Online, 2007.
- Sen, Amartya. *Commodities and Capabilities*. New Delhi: Oxford India Paperbacks, 1999.
- Sen, Amartya. *Development as Freedom*. New York: Anchor Books, 1999.
- Sen, Amartya. *Inequality Reexamined*. Oxford: Oxford Scholarship Online, 2003.
- Varner, Gary E. *Personhood, Ethics, and Animal Cognition: Situating Animals in Hare's Two Level Utilitarianism*. Oxford: Oxford Scholarship Online, 2012.
- Wissenburg, Marcel. 'The Lion and the Lamb: Ecological Implications of Martha Nussbaum's Animal Ethics', *Environmental Politics* 20:3 (2011), pp. 391-409.