

Symbiosis Through Autonomy in the Community of Nature



15 October 2012

Master thesis by Dirk-Jan Evers (3019004)

Supervisor: dr. Franck Meijboom

Second reader: dr. Marie José Duchateau

Faculty of Humanities
Department of Philosophy
Ethics Institute



Universiteit Utrecht

Abstract

In the modern Western view, nature is often seen as something outside the world of humans. This nature/non-nature dichotomy, however, is a delusion, as it overlooks the interdependency that is established through symbiotic relations in the community of nature. The autonomously striving of each being to fulfill its potential creates these symbiotic relations. The interference of humans with the autonomy of other beings and natural processes disrupts these relations, which could be the cause of today's severe environmental degradation. If the interference of humans in the autonomy of natural processes is seen on a continuum, this could lead to a perspective that leaves room for humans to interfere in these processes to a limited extent, to fulfill their own potential. When the interference in autonomy transcends the symbiotic relations, this could lead to the decline of the community and its interdependent relations. To live in accordance with these symbiotic relations would benefit humans and would maintain a mutually beneficial relation with other entities in nature.

Index

| | |
|---|----|
| Introduction..... | 5 |
| • Intrinsic and instrumental value..... | 5 |
| • Individualism and holism..... | 7 |
| • Outline..... | 8 |
| Autonomy and Dualism..... | 9 |
| • The autonomy of nature..... | 9 |
| • Nature/non-nature dualism..... | 10 |
| The Community of Nature..... | 13 |
| • Dependent origination..... | 13 |
| • Symbiosis..... | 13 |
| Continuum..... | 15 |
| Conclusion..... | 17 |
| Acknowledgements..... | 18 |
| Literature..... | 19 |

Introduction

Earth is changing at an unprecedented pace. Our surroundings are subject to severe human-induced degradation as is manifest for example in marine, atmospheric and soil pollution, global warming, rapid extinction of species, depletion of stratospheric ozone, toxic waste and destruction of rainforest (Palmer, 2003). Some actions are undertaken to put this degradation to a halt, however none seem to be sufficient as of yet. The current changes in policies and laws do not seem nearly enough to counter this degradation of nature. The halting of these environmental threats, therefore calls for other solutions. As Aldo Leopold in his influential article 'The Land Ethic' (1949) explains: "By and large, our present problem is one of attitudes and implements. (p. 46)" This calls for a new way of valuing, a new ethic. This has led to a new field of ethics, 'environmental ethics', which has committed itself to provide an ethical and philosophical basis for nature conservation and a moral standing for non-human animal welfare. One of its central issues is to determine what is valuable and why. By doing so, environmental ethics attempts to aid and contribute in issues on the degradation of our environment, which are more apparent each day.

In this thesis, I will propose directions to add to the debate on this new ethic. First, however, I will give a short overview of some of the concepts and debates in environmental ethics and I will indicate where this thesis fits in.

Intrinsic and instrumental value

Imagine an Earth with the whole human race wiped out as the result of a disaster. Forests are still thriving, birds still fly through the air and streams are gently flowing. Only one human has survived the disaster. This person walks the Earth, destroying and killing as much of nature as possible with all means at hand, even nuclear weapons, thereby attempting to eliminate as many species as possible.

This illustration, taken from Richard Routley's "last man" example (1973), can be judged from two opposing ethical points of view. It can be said that this last person does not ethically act wrong, as nothing is done that would harm the interest of humans. However, intuitively there seems to be a moral objection to the way this last person acts. Routley argues that this moral objection stems from the fact that nature possesses some kind of good in itself, an intrinsic value, apart from its use to humans. The discussion on the possession of intrinsic value by nature is a fierce and ongoing debate in environmental ethics with many proponents and opponents.

In political debate, issues of environmental concern are almost completely directed at resource management, and by that the protection of natural resources for human use. The perspective that nature is a collection of goods that can be used by humans as means to further some ends, regards nature as possessing instrumental value (Brennan and Lo, 2008). However not mutually exclusive, this contrasts with previously mentioned intrinsic value of nature, which values nature as end in itself (*ibid.*). Instrumental value can, for instance, be found in wood resources, or recreational space, while intrinsic value can be the value of entities merely being alive or living for themselves. Both these values are being put forward in the debate of nature conservation, either to designate nature as morally considerable in itself, or not. According to Routley (1973), the consequentialist view that regards nature as merely instrumentally valuable, is part of the current dominant Western view. The

adherence to arguments that are based on human centered ethical thinking, which often include nature as instrumentally valuable, are regarded by many thinkers as 'anthropocentrism'. Tim Hayward (1997) defined anthropocentrism as the view that gives "exclusive or arbitrarily preferential consideration to human interests as opposed to the interests of other beings (p.51)."

An anthropocentric perspective and the moral consideration of nature based on instrumental value are both problematic for many environmental ethicists. Many argue that a rejection of anthropocentrism is needed to establish a distinctive field of environmental ethics (see Light and Rolston, 2003a). Moral consideration of nature based on instrumental value can only be highly subjective and context dependent. The entities that people value in nature and would like to preserve for their own ends are culturally dependent and change through time. Also, instrumental value can lead to conflicting human interests, and does not benefit nature. For instance, aesthetic value of a nature area can serve tourist purposes, which may prevent a nature area from being damaged. But when short-term interests of tourism cannot be satisfied, for example because of lack of tourist accommodation, inhabitants of the area may change their values regarding conservation. The ascribing of instrumental value to nature is therefore argued to be subjective. It imposes values that humans consider important on nature, which does not necessarily benefit nature, or may even be detrimental to it. Even attributing aesthetic values to nature can be regarded as subjective, anthropocentric and these values can be subject to change. Instrumental value is thus argued to be subjective and anthropocentric.

Intrinsic value can also be considered subjective, as J. Baird Callicot does (in Palmer, 2003). The valuing of any entity can be considered a subjective action, as there is an agent who values an object. The recognizing of intrinsic values in nature, therefore, is mediated by the valuing agent, which renders it a subjective action. However, as aspects that make nature intrinsically valuable are found in nature itself, these aspects are determined by natural properties and are constant. These properties are inherent to natural entities, and therefore not subject to change or opposing interests. The recognizing of intrinsic value is therefore distinct from the anthropocentric recognizing and determining of instrumental value. Instrumental value, namely, promotes an anthropocentric perspective, in which value is subject to conflicting human interests and, so to say, fashion.

It can be argued that humans have certain fundamental needs, such as food and shelter, that can form the basis for certain instrumental values in nature. The choices that are made to fulfill these needs can, however, be made in different ways, with a different impact on our surroundings. These choices can also be subject to changing values and fashion. Therefore, many argue that instrumental value of nature cannot be the basis of firm arguments in nature conservation debates and they reject anthropocentrism (see Light and Rolston, 2003a). These ethicists argue that nature can be directly morally considerable instead of merely indirectly morally considerable, which is the case when nature is seen as means to human ends.

The acknowledgement of intrinsic value recognizes an entity as possessing a good of their own. This good indicates that there are things that are objectively in these entities' interest, even if these entities cannot consciously be aware of this (Taylor, 1986). For example, general consensus is that plants do not become consciously aware, but they still benefit from access to sunlight and suffer from depletion of carbon dioxide. Thus, there are objective matters that are of the plant's interest. The possession of intrinsic values by an entity is considered to create a prima facie responsibility not to

harm it (Brennan and Lo, 2008). Following the acknowledgement of intrinsic value in nature and the rejection of anthropocentrism, many argue for the development of a new ethic, which incorporates new ways of valuing.

Later in this thesis, I will argue that intrinsic value and moral considerability of natural entities and processes can be found in the autonomy from human intervention.

Individualism and holism

In the debate on what entities in nature are morally considerable, there is a clear distinction between the individualists, who argue that the moral consideration beyond humans should be restricted to individual entities and the holists, who consider ecological wholes such as ecosystems, wilderness and species to be morally considerable (Light, 2002).

Individualists with a deontological perspective regard individuals as morally considerable because they have value in themselves. Paul Taylor (1981) describes from an Aristotelian background that all individuals are teleological centers of life, each with its own impulse to reach its full potential. All individuals possess such a *telos*, which should be respected and which gives all individuals an equal inherent worth, value and right to live. The potential of a seed, for instance, could be to grow to a plant, make flowers and disperse new seeds. The respecting of equal value resulting from each entity's own impulse to reach its potential, implies that humans are not entitled to judge the relative values of different species, as this would impose our anthropocentric perspective on nature. This granting of an equal moral status to all living beings is termed biospheric egalitarianism.

Some thinkers have made further divisions within the individualist perspective, for instance by introducing a hierarchy of value. Some consider beings who are thought to have interests to be more valuable than those beings who do not possess these interests (Palmer, 2003). These interests can be found for example in sentience or consciousness, which would indicate that a being could experience pleasure and discomfort. Louis Lombardi (1983) introduced a grading based on the capacity of an entity. Lombardi explains that some entities have additional capacities that increase their inherent worth. For example, a plant has vegetative capacities which adds a little to its value. Mammals have these vegetative capacities but they are also sentient by which they can experience pleasure and pain, this adds more to their value. Humans have even more capacities, such as reflectiveness, which increases their value even further. As humans are considered to have more value than other entities in this grading, such system justifies our interference with other entities in nature and it distinguishes between moral significance of other beings. Such hierarchies are, however, susceptible to the subjective determining of values in nature by humans based on human capacities and are therefore anthropocentric and subject to cultural context and change.

Considering the respect given to all individuals by individualists, this approach has been suggested by some as being "fundamentally life-denying" (Palmer, 2003). This perspective is thought to overlook natural processes such as predation and death in which some individuals can be seen as necessarily dominated by others. These processes are essential to maintain ecological wholes such as ecosystems and species. Holists, in contrast to individualists, consider ecological wholes to be the subject of moral consideration and maintain that individuals can be sacrificed to preserve these wholes. In environmental ethics, there are thinkers who accept different configurations of individualism

and holism. In this thesis, I want to reconcile the respecting of equal rights for individuals, including humans, with such natural processes as predation and death. In principle, I endorse an individualist deontological approach with a biospheric egalitarianist view. However, I also acknowledge the importance of natural processes, on which I will elaborate further on in this thesis.

Outline

In the remainder of this thesis, I want to argue for the direct moral considerability of nature through intrinsic value of the autonomy of nature. This autonomy follows from the possession of a telos by each being, which gives it a right to reach its own potential. Each being's striving for its potential is what creates a web of interconnected relationships through symbiosis, as already proposed by Thomas Heyd (2003). The interference of humans with these symbiotic relations impairs nature's autonomy. However, humans are also a part of this web of interconnected relations, which gives humans a right to strive for their own potential. The main goal of this thesis is to reconcile the reaching of human's own potential with the respecting of the autonomy of nature. This can be done by viewing the interference of humans in the autonomy of nature on a continuum. There is a certain degree on this continuum in which the interference of humans with the autonomy of nature is according to symbiotic relations that have evolved through time. However, there is also a degree on this continuum that transcends these symbiotic relationships and in which the interference of humans with the autonomy of nature can be regarded as domination. I will explain how this continuum is an improvement over current dualistic ways of viewing nature and I will explain how the autonomy of nature is compatible with a community model of which humans are a member.

In the first part of this thesis I will argue why the autonomy of nature is intrinsically valuable and why this autonomy should be respected to preserve nature. Second, I will explain that the current dualistic way of viewing our world, as nature and non-nature, is a delusion and enforces a perspective that sees our surroundings as merely instrumentally valuable. Third, I will point out that the perspective of a community of nature with interconnected symbiotic relations between all beings, including humans, is more in accordance with natural processes. Fourth, I will discuss how a continuum of human interference with the autonomy of nature can indicate whether a human action is in accordance with the symbiotic relations of the natural community.

Using the concept of nature can be confusing, as it represents many different phenomena. Nature can have different meanings to different people and in different contexts. It can be the forests outside of the city, wilderness areas untouched by humans, laws of nature such as gravity, God, Gaia, Tao and much more. In the remainder of this thesis I will use the concept of nature to indicate, so to say, all that came into being, thus all there is. A concept which encompasses all there is should seem of little use in debates on which parts of our world we should protect and why. Therefore, I will elaborate on the concepts 'natural' and 'artifact' in the next section.

Autonomy and Dualism

The autonomy of nature

Eric Katz (1991) argues that individuals and wholes possess intrinsic value based on their ontological independence from human purpose, activity and interest. This nature as “autonomous subject” deserves moral respect and should not be treated solely as means to human ends. Katz (1997) defines *autonomy* as “the free development of individuals and natural processes - its opposite is domination (p. xxiv).” Katz describes the *natural* as “objects and processes that exist as far as possible from human manipulation and control (p. 104)”, while he defines all that stands “in a necessary ontological relationship with human purpose” as *artifacts* (p. 122). The distinction between natural and artifact is thus the relationship with human involvement. A natural entity's sole property that distinguishes it from artifacts is its autonomy from human interference. Following these arguments, something which is natural is by definition free from human interference and vice versa, something which is interfered with by humans is artifactual or unnatural. The preservation of natural entities would therefore necessarily require humans to refrain from intervention.

Consider for example two identical natural areas, one has been restored by humans after a period of logging and one area reached its current state through natural processes. The state the areas are in today is identical. The first is an artifact for the benefit of humans according to Katz, the latter has more value, as its processes are autonomous. The only difference between both areas is human intervention, which limits the autonomy of natural processes in the first area, such as evolution, ecological succession, and predator-prey population interactions. The restored area has become an artifact. The molding of natural entities into a human ideal and idea of nature, compromises this autonomy and intrinsic value. The limiting of this autonomy is done by interfering on two different levels: the area's connection with the past has been disturbed and the area's ability to naturally evolve has been impaired. The unimpaired flowing of natural processes is therefore what makes nature autonomous. The autonomy of natural processes is, thus, an intrinsic property, which gives intrinsic value. Autonomy in this sense should not be confused with a Kantian usage in which autonomy is found in all who can use rationality, which to our current understanding would limit autonomy to humans.

As I will explain in more detail later, the possession of a *telos* by each being and its striving to reach its potential, is what creates these natural processes. The impairment of each being's ability to fulfill their potential, limits their autonomy. To respect and preserve the natural would thus require humans to refrain from intervention in natural processes and respect each being's striving to fulfill its potential. Robert Elliot (1982) illustrates the value of ontological autonomy by an example of the forgery of a piece of art. A fake piece of art has usually less value than the original, however similar they are. Elliot argues that humans value original art and originally natural areas because of their “specific genesis and history (p. 383)”. He explains: “we value the forest and river in part because they are representative of the world outside our dominion, because this existence is independent of us (p. 384).”

The respecting of the natural is not the creation of an aesthetically beautiful and biologically diverse nature area, as many would argue, but the respecting of natural processes. These natural

processes are what makes nature natural and these processes create a natural system which is naturally fit and in balance for a specific bioregion. The restoration of a nature area by humans only imposes ideas and values on an area following from a human idea of what nature should be (Katz, 1985). This is completely abolished of real natural processes. Even if a nature area has not been able to develop completely autonomous, it should still be left alone to let autonomous natural processes take over. Katz argues that restoration is domination of nature, and thereby that a restored area has become an artifact to the benefit of humans. In fact, Katz argues that as domination is opposite to free development of natural processes, all human intervention in natural processes is domination for the benefit of humans. This domination and control of nature is seen by Katz as the primary goal of Western civilization, and especially Western science and technology, for the advancement of humans.

As mentioned earlier, the acknowledging of intrinsic value can be seen as a value being recognized by an agent, and therefore might be termed subjective. The subjective recognition of a value is seen by some as anthropocentric, and by that it would not be able to form the basis of an environmental ethic. However, when autonomy is taken as intrinsic value, it will irrefutably involve a subjective perspective, even in the recognizing of one's own autonomy (Heyd, 2005). The recognizing of one's self requires the recognizing of someone or something other than one's self, thereby recognizing the autonomy of the self and other. The recognizing of the other, thus, also necessarily involves recognition of the self. This can be extended to natural entities. Therefore, the recognizing of one's own self and also nature as autonomous is irrefutably intersubjective. The ability of humans to recognize the autonomy of nature is thus subjective in the same sense as recognizing one's self as autonomous from someone else. The value of autonomy is therefore not subjective, but the action of valuing is. Autonomy as intrinsic value is thus not created by humans as would be the case with instrumental value, but it rather is recognized by humans. This makes autonomy an inherent property of nature, independent of human interests, and by that an intrinsic value which could be the basis for moral consideration.

I agree with Katz that the autonomy of natural processes is what makes nature natural, and should therefore be respected. However, later in this thesis, I want to go beyond the rigid natural-artifact distinction by introducing a continuum on which to rate the degree of human intervention on the autonomy of natural processes. Thereby, I want to argue that the intervention of humans is not necessarily domination, which leaves room for some degree of human interference in this autonomy. With this continuum, I also want to explain how each being should have a right to reach its own potential, while natural processes, including predation, should be respected.

Nature/non-nature dualism

The recognition of the autonomy of nature suggests a dualistic relationship between nature (or the natural) and non-nature (in this case humans or the artifactual). Even the mere using of the word 'nature' induces a conception of something other than nature, something human perhaps. This dichotomy could enforce a perspective in which the world of humans is seen as outside or independent from the natural world. As humans are seen as distinctive from nature, this in turn could result in a view of a natural world which can solely be used as goods to further human ends.

The word nature comes from the Latin *natus* or *gnatus*, which means 'being born' or

'produced', and is related to the Greek *gignomai*, 'to be born' (Rolston, 1997). These roots are still present today in 'pregnant', 'genesis' and 'native'. Nature can be seen as all that has been generated and that came to be. From this I have taken the concept of nature as 'all there is'. If nature is all there is, it would also include humans and their creations. In this light, it seems strange to speak of a non-natural world.

Holmes Rolston (*ibid.*) argues that this meaning of nature as 'all there is', almost paradoxically, is at the basis of the problem of the dichotomy. "Nature-as-a-whole" cannot be directly encountered. We can only encounter and experience specific entities and processes, which are only a part of the whole. We can have an encounter with a deer, or feel the rain fall down on us and we can relate to, and name these entities. We can only experience encounters with these specific entities, never complete nature. The concept of nature has to be extrapolated from these specific encounters and relations. 'Nature' is used as an overarching term to summarize all these encounters. Different individuals and different cultures have different encounters and would therefore seem to have a different idea of the concept of nature. This is reflected in the different (metaphysical) metaphors which are used to describe nature, such as: Gaia, an evolutionary ecosystem, the creation of God, the Great Chain of Being, chaos, Brahman, Samsara. As Rolston argues (*ibid.*): "'Nature' is not so much anything out there as a category we have invented into which to put things; and we reinvent the category with our shifting models that describe this collection called 'nature', depending on the mindset of the beholder (p. 41)." What we term and conceive as nature, is thus what we have constituted as nature (Evernden, 1992).

As argued by Neil Evernden (*ibid.*), it can be said that there was no nature before the word was invented. This does not mean that there were no phenomena which we now would attribute to the concept nature, but rather there was no overarching concept to grasp all entities and phenomena encountered in the world. Nature is now used as a category and container which allows for the conception of a specific distinct thing. "It is our habit, and perhaps an inevitable one," Evernden explains, "to subsequently construe nature as the *source itself*. Yet nature is not the well, but the bucket, and a leaky one at that (p. 110)."

This bucket of nature is what today creates our conception of nature. This conception has been generated out of human experience in encounters with natural phenomena during the course of our history. This has led to a bucket in which some phenomena are stored, the natural phenomena, and in which some are not stored, the non-natural phenomena. The previously mentioned dominant Western view, as argued by Routley, sees nature merely as instrumentally valuable. This might be the result of the distinction between concepts which we do and which we do not store in the bucket of nature. In this same line of reasoning, it would seem inappropriate to speak of 'the environment'; as if there is a place in our surroundings which is governed by different laws or processes than our immediate occupied space. This again, could induce a conscience of a dualistic world, with on one side the world of humans, and on the other side the environment, which is independent from humans and by that subject to different values.

The origin of the current dualistic perspective in the dominant Western view, is thought by some to originate from Descartes and his division of the world into mind and matter (Paterson, 2006). His dualistic perspective and skeptical mathematical method supports modern science, and rationality forms modern Western thought. During the scientific revolution, the original organic view of nature as

a community or living organism was replaced with a more mechanistic perspective of nature as a machine (Merchant, 1980). The scientific discoveries that followed, provided ways to control and dominate nature. The original view of nature and Earth as community or organism, had previously aided in a constraining manner on human actions in the relation to their surroundings. The mechanistic and rationalized worldview validates the exploitation of nature, resulting in a dualistic view that sees humans as separate from nature. This perspective results in difficulty to conceive humans and other entities in nature as mutually dependent and limits our ability to view other entities as directly morally considerable.

The use of concepts as nature and non-nature can thus result in a perspective in which the world is divided two categories, one that is the human and can be directly morally considerable, and one that is natural and can be subject to different ethics and can be used to further human ends. This distinction can create the perspective that entities and processes can be perceived as fundamentally distinct from ourselves and our lives, and by that can be seen as merely instrumental to us and devoid of moral consideration. The renouncing of a perspective that endorses such a rigid nature/non-nature dichotomy, could give rise to an ethic that includes direct moral consideration of other entities than humans. These entities can then be seen as part of the same world and therefore subject to the same processes and forces by which they could be attributed a similar moral significance.

At first sight, it might seem contradictory to argue against a nature/non-nature dichotomy, while the autonomy of natural processes is what makes natural entities directly morally considerable. It should seem that the autonomy of nature inevitably makes it distinct from humans. However, the recognition of the autonomy of natural processes does not necessarily lead to a dualistic perspective, as will be explained in the next section. As Heyd (2003) argued: "To recognize a being as autonomous is not to deny that every being thrives through interdependence". Each being's own autonomous striving to reach it's potential leads to a web of symbiotic relations that gives rise to ontological dependence and establishes the community of nature.

The Community of Nature

Dependent origination

Eastern philosophy developed along a different line through the course of history, without a rigid mind-matter dichotomy, but based on the principle of harmonious and nonviolent coexistence (Paterson, 2006). This approach is distinguished by respect for the rhythms, processes and phenomena of nature. An important aspect in Eastern philosophy is *dependent origination*, the interdependence of all things. This idea holds that entities and phenomena cannot exist by themselves, but exist or arise as a result of their relationship with other entities and phenomena.

According to Barbara Paterson (*ibid.*), the failure or ignorance to recognize this interdependence of humans and other entities, gives rise to greed. It leads people to seek the fulfilling of their own requirements at the cost of others. This goes beyond human-human and human-other being relations. The greed extends to companies and even countries to deprive others of their basic needs to fulfill one's own desires. At present, this greed is even denying other beings the right to exist. The failure to recognize the interrelatedness is a delusion according to Paterson. It leads to a self-destructive egocentrism, which can have resulted in the major environmental degradation issues we see today, and which we try to cope with by trying to control and dominate nature even more. She argues that awareness of the interrelatedness, in turn, would support a desire for mutually beneficial coexistence, both with other humans and with the natural world.

A concept similar to dependent origination was adopted by Arne Naess in his description of Deep Ecology (1973). He argued for a *relational, total-field image*, in which organisms are seen as knots in the biospherical net. He maintained that a relation between two entities is part of the basic definition of both these entities. Without their relationship, the entities would not be the same.

Symbiosis

The idea of dependent origination can be found in nature as the biological concept of symbiosis (Paterson, 2006). Symbiosis describes the relations which natural entities have developed through the course of time, to benefit from each other's existence. An example is the bee, which takes nectar from the flower, and by that aids the flower in pollination. Not all symbiotic relations are reciprocal in this sense, however all organisms share relations with others, and derive their existence from these relations. The relations all entities share, create an intricate web that benefits and gives rise to all entities. Humans, or the species *Homo sapiens*, also developed as knots in this web and are therefore dependent on and part of these symbiotic relations. Because humans form a part of this web, it is a delusion to divide the world in the categories of nature and non-nature.

Many of the symbiotic relations in this web, though not all, are based on the acquisition of food. As a rudimentary illustration of these relations, Aldo Leopold described the "biotic pyramid" (1949). This pyramid can be visualized as having different layers. Energy from the sun absorbed by plants flows through the pyramid. In a simplified form, soil is in the bottom layer, followed by plants, insects, birds and rodents, succeeded by different animal groups until the large carnivores are reached. Each layer takes its food from the previous, which results in the pyramid shape of the construction, as each

layer needs to take more food from the layer below. The lines of direct food dependence are called food chains. As Leopold explains, a chain that previously was soil-oak-deer-Indian, has now been substituted by the chain soil-corn-cow-farmer. Each organism, including humans, is a link in hundreds of these chains, which results in a myriad of interdependent chains. As mentioned, symbiotic relations do not only include the acquisition of food, but also dispersion of seeds, transportation, shelter, access to water, digestion and so on. The dependence on these relations arose through time and humans were and still are part of and dependent on these relations. The interdependence of different entities and phenomena defines and ensures their existence and has resulted in the species that are alive today. These relations benefit all entities and all entities depend on these relations. The interconnectedness of all entities is the community of nature.

The autonomous striving by each entity to reach its potential creates this symbiosis and mutual dependence. The bee takes nectar from the flower to fulfill its individual (or species') goals, but by doing this, it establishes a symbiotic relationship with the flower by pollinating it. Autonomous processes, thus, create interdependent relations (Heyd, 2003; Katz, 1985). The autonomy of nature, therefore, does not necessarily lead to a dualistic nature/non-nature perspective. Autonomous processes are, in fact, at the basis of interdependent relations.

Symbiotic relations can be subject to change. Elements of the community can alter and the community can often adjust itself. The whole course of evolution has been such a series of changes. These changes, are however made relatively slow, while modern human induced changes follow at an unprecedented speed and violence. Natural symbiotic relations have often arisen as relations specific for a certain region. Human transportation and dispersion of plants and animals across the globe has distorted this. The symbiotic relations humans share with the rest of nature, therefore, are often not mutually beneficial anymore. The autonomous striving of humans in the Western view has transcended the symbiotic relations of the community of nature, and by that, it can be the cause of the degradation of nature, which is disadvantageous to humans as well as the rest of the community of nature.

It is important to note that the metaphor of the community of nature is not the same as nature as organism, which is sometimes used in the literature (Katz, 1985). There is an important difference in the autonomy of the elements in both these metaphors. In an organism, the different parts are less autonomous and have instrumental value to ensure the survival of the whole. The different elements are part of the whole, this overemphasizes the interdependency of the elements and their functioning towards a single goal. In a community metaphor, the elements are members with an autonomous striving. They exist both for their own good and as an element in the functioning of the community.

Beings live autonomously and for themselves. By pursuing their own interests, they serve a role in the community of nature by establishing symbiotic relations. Most Western humans have transcended the symbiotic relations with the rest of the community and serve no more role in the maintaining of the community, leading at present to its demise.

Continuum

So far, this thesis has led to three essential conclusions. First, because that which is natural is autonomous from human interference, the autonomy of natural processes should be respected in order to allow nature to be natural. Second, a rigid nature/non-nature dichotomy is a delusion and places humans outside of nature; this enforces a perspective that sees nature as good to further a human end. Third, nature is a web of interconnected symbiotic relations; humans are a knot in this web and are part of and dependent on these relations; the current Western view transcends these symbiotic relations.

The first point would make it impossible for humans to live in a natural world. All their creations and actions would be unnatural by definition. However, as members of the community and products of natural processes, humans also have a right to pursue their telos and to fulfill their potential. Heyd already recognized the possibility for the establishment of interdependent relations through autonomy (2003). He argued for the development of practical means to recognize the autonomy of nature. To reconcile the discrepancy between human refrain from interference in natural processes and their right to fulfill their potential, as well as to provide practical means to recognize the autonomy of nature, I want to go beyond Katz' natural/artifact dichotomy. Therefore, I want to argue for a continuum on which to rate the degree of interference in the autonomy of natural processes (see figure 1).



Figure 1. Continuum of the interference in the autonomy of natural processes.

One end of the continuum is anchored by a complete autonomy of processes in nature. No interference by humans in these processes takes place there. This is the natural end of the continuum. The other end of the continuum is anchored by a complete control and domination of the processes in nature by humans. This is the artifactual end of the continuum. For humans to live in symbiosis with the natural community, requires a certain degree of autonomy of natural processes. Somewhere along the natural-artifactual continuum this symbiosis is transcended. This allows for a certain degree of interference by humans in the autonomy of processes in nature, to fulfill their potential and use means for survival.

In the debate on what is natural and what is artifactual, many argue that if what is artifactual is defined as that which is created with a purpose, objects such as beaver dams would also be artifactual (Vogel, 2008). Katz circumnavigates these objections by including that that which is created with a purpose has to be made by humans in order to be an artifact. This looks like an arbitrary argument and a continuum of human intervention on the autonomy of nature solves this problem. The symbiotic relation which require some degree of autonomy of natural processes, could also be transcended by beavers. The continuum can be applied to the behaviour of all beings. The continuum also offers an

alternative for the arbitrary definition of the 'natural' as that which is untouched by humans. The natural is that which does not perturb the symbiotic relations of the community of nature. This makes it possible for humans to exist in nature and influence its processes to some extent. Also, it offers an alternative for the rigid nature/non-nature dichotomy which puts humans as separate from the rest of nature. Instead it introduces a perspective which acknowledges human's interrelatedness with other beings.

This continuum is consistent with the idea of William Throop and Beth Vickers (2005), who argue that human influence respects the autonomy of an entity when the influence is "compatible with that entity's behaving in accord with its nature (p. 102)." This behaving in accord with its nature is similar to the fulfilling of a being's potential. The introduction of a continuum and the recognizing of the transcendence of the symbiotic relations extends their idea to a concept which can rate human actions. Ned Hettinger also proposes that human influence on nature comes in degrees when he speaks about the restoration of nature by humans (Hettinger, 2002). By this, he argues that the removal of a dam is a human action, but as a result, previous human influence is reduced. Thus, according to Hettinger, not all human actions in nature limit the autonomy of natural processes. This is consistent with the continuum, which, to a certain extent, also leaves room for human interference in natural processes.

To investigate or define what actions actually adhere to or transcend these symbiotic relations is beyond the scope of this thesis. As symbiotic relationships develop through time, it seems worthwhile to look at cultures that have lived in the same relation with nature for a long time. Such relations can perhaps be found in so-called aboriginal or indigenous cultures (Heyd, 1995). These cultures often have ethics, rituals, traditions and religions that ensured a mutually beneficial relation with their surroundings for a long time (Pitchaivelu, 2009). Such phenomena can be seen as 'culture', but when they ensure a symbiotic relation with the rest of nature, they actually can constrain human actions in their influence on their surroundings, and are in that sense in accordance with natural processes. These expressions of culture would, thus, be more natural than modern Western ways of acting. Such ethics can include 'take no more than you need', or "the primary ethical teaching of all times and places: 'cause no unnecessary harm' (Devall and Sessions, 1985, p. 12)."

The continuum can form a basic indication on which to rate human actions that influence the autonomy of natural processes. On this continuum there is a certain degree of influence which is in accordance with the symbiotic relations in nature and does not transcend these mutually beneficial relations, but which still leaves humans the opportunity to live in nature to fulfill their own potential. Whenever the mutually beneficial symbiotic relations are transcended, human actions can be seen as domination for the benefit of humans.

Conclusion

The nature/non-nature dichotomy is a delusion, as it overlooks the ontological interdependence of all entities in nature. The autonomously striving of each being to fulfill its own potential creates this interdependency. This is why humans, as part of the natural community, should limit their interference in natural processes to stay in accordance with the symbiotic relations. The symbiosis of the community of nature thus arises through autonomous processes. To act in accordance with symbiotic relations would benefit humans, as it would prevent us from egocentric greed which would eventually lead to demise of the community of nature and our possible self-destruction. It also benefits processes and other entities in nature, as they can autonomously thrive.

Symbiotic relationships that are the consequence of each being's fulfilling of their potential also include predation and death to a certain extent. The individualist biospheric egalitarianism that recognizes the right of each being to reach its potential, is in this way compatible with a holist perspective that values ecological processes and wholes. The continuum of natural and artificial (or non-natural) can aid in reconciling debates between individualists and holists. It also can mediate in debates between proponents and opponents of the recognition of intrinsic value in nature, as it recognizes intrinsic value, but leaves room for human use of nature to a certain extent. To act within the limits of symbiotic relations would, in this sense, allow for a limited anthropocentric perspective.

This does not make the continuum a 'weak anthropocentric' position. Weak anthropocentrism is the addition of ecological values to economic values in the valuing of nature (Light and Holmes, 2003a). This perspective still maintains a dualistic perspective of nature, while in the symbiotic perspective humans are seen as an element in the community, and because they are a part of this community, they can interfere with the processes of nature to a limited extent.

The adherence to the symbiotic relations will benefit humans, as we are a part of the community. If the community is damaged we, in essence, damage ourselves and our ability to prosper. The ever increasing need for 'progress' is what takes us further from this natural state in which we live in symbiosis with the community. The modern Western view in which human history is seen as a cumulative teleological culmination of progress for which humans would solely need to identify as profit-maximizers, thus, is a delusion. This view promotes the interference with the autonomy of natural processes. While the limiting of this interference ensures a mutually beneficial relation.

To act in accordance with symbiotic relations and to adopt ethics that promote the autonomy of natural processes, might seem difficult in our current society. Our society is in many ways based on continuous profit maximization and personal gains. In environmental ethics, the 'environmental pragmatists' argue that many theoretical ethics, such as described in this thesis, have little effect on policy-making (Palmer, 2003). However, ethics should not solely lead to policies which impose people how to act. The forced adhering to rules created by policy makers will unlikely lead to sincere respecting of nature, and thereby people will always act near the boundaries of these rules to fulfill their personal goals. Instead, the personal conviction that all humans are part of the community of nature would promote prosperity for humans and other beings. This 'ecological conscience' as a "a conviction of individual responsibility for the health of the land (Leopold, 1949, p. 45)", would require new (or renewed) modes of valuing. The current environmental degradation will unlikely be subverted

through the implementation of policies and laws. Instead, it calls for a change in each individual's personal ethic.

Acknowledgements

I want to thank Franck Meijboom for introducing me to several interesting topics and for providing me with feedback; Marie José Duchateau for taking the time to act as a second reader and Lenneke de Ruijter, Roos Reijbroek and Emma Klaassen for providing valuable commentary.

Literature

- Brennan, Andrew and Lo, Yeuk-Sze, 2008. "Environmental Ethics". In: Stanford Encyclopedia of Philosophy (accessed 26 June 2012).
- Devall, Bill and Sessions, George, 1985. *Deep Ecology*, Salt Lake City: Gibbs M. Smith.
- Elliot, Robert, 1982. "Faking Nature", *Inquiry*, 25, pp. 81-93. Reprinted in Light and Rolston 2003b
- Evernden, Neil, 1992. *The Social Creation of Nature*, Baltimore: The Johns Hopkins University Press.
- Hayward, Tim, 1997, "Anthropocentrism: A Misunderstood problem", *Environmental Values*, 6, pp. 49-63.
- Hettinger, Ned, 2002. "The Problem of Finding a Positive Role for Humans in the Natural World", *Ethics & The Environment*, 7 (1), pp. 109-123.
- Heyd, Thomas, 1995. "Indigenous Knowledge, Emancipation and Alienation", *Knowledge and Policy*, 8 (1), pp. 63-73
- Heyd, Thomas, 2003. "The Case for Environmental Morality", *Environmental Ethics*, 25 (1), pp. 5-24.
- Heyd, Thomas (ed), 2005. *Recognizing the Autonomy of Nature: Theory and Practice*, New York: Columbia University Press.
- Katz, Eric, 1985. "Organism, Community, and the "Substitution Problem", *Environmental Ethics*, 7 (3), pp. 241-256
- Katz, Eric, 1991. "The Ethical Significance of Human Intervention in Nature", *Restoration and Management Notes*, 9, pp. 90-96.
- Katz, Eric, 1997, *Nature as Subject: Human Obligation and Natural Community*, Lanham, Md.: Rowman & Littlefield.
- Leopold, Aldo, 1949, "The Land Ethic", from *A Sand County Almanac: And Sketches Here and There*, Oxford University Press. Reprinted in Light and Rolston 2003b.
- Light, Andrew, 2002. "Contemporary Environmental Ethics From Metaethics to Public Philosophy", *Metaphilosophy*, 33 (4), pp. 426-449.
- Light, Andrew and Rolston, Holmes III, 2003a. "Introduction: Ethics and Environmental Ethics", In: Light and Rolston 2003b.

- Light, Andrew and Rolston, Holmes III (eds), 2003b. *Environmental Ethics: An Anthology*, Oxford: Blackwell.
- Lombardi, Louis, 1983. "Inherent Worth, Respect, and Rights", *Environmental Ethics*, 5 (3), pp. 257-270.
- Merchant, Carolyn, 1980. *The Death of Nature: Women, Ecology, and the Scientific Revolution*. San Francisco: Harper and Row.
- Naess, Arne, 1973. "The Shallow and the Deep, Long-Range Ecology Movement: A Summary", *Inquiry*, 16, pp. 95-100
- Palmer, Clare, 2003. "An overview of environmental ethics", in Light and Rolston 2003b.
- Paterson, Barbara, 2006. "Ethics for Wildlife Conservation: Overcoming the Human-Nature Dualism", *BioScience*, 56 (2), pp. 144-150.
- Pitchaivelu, Kanagaraj, 2009. "Religious Beliefs, Indigenous Communities and Environmental Preservation in Western Tamil Nadu, South India", *The Trumpeter*, 25 (2).
- Rolston, Holmes III, 1997, "Nature for Real: Is Nature a Social Construct?", In Timothy Chappel (ed), *The Philosophy of the Environment*. Edinburgh: Edinburgh University Press.
- Routley (Sylvan), Richard, 1973. "Is there a need for a new, an environmental ethic?". *Proceedings of the 15th World congress of Philosophy*, vol. 1 pp. 205-210, Sophia: Sophia Press. Reprinted in Light and Rolston 2003b.
- Taylor, Paul, 1981. "The Ethics of Respect for Nature", *Environmental Ethics*, 3, pp. 197-218.
- Taylor, Paul, 1986, "The Attitude of Respect for Nature", *Respect for Nature: A Theory of Environmental Ethics*, Princeton: Princeton University Press.
- Throop, William and Vickers, Beth, 2005. "Autonomy and Agriculture", in Heyd 2005.
- Vogel, Steven, 2008. "Thomas Heyd (ed), Recognizing the Autonomy of Nature: Theory and Practice", *Human Ecology*, 36, pp. 137-140.