HUMAN BEINGS AND NATURE: UNIFYING (UN)NATURAL OPPONENTS

Exploring the philosophical premises underlying the climate crisis

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Abstract

The purpose of this thesis is to locate and make explicit the philosophical premises that contributed to the climate problem and in turn inquire how we can move past these philosophical ideas and change our attitudes towards nature, so that we can address the climate problem better. I argue that environmental ethics should be based on the reconnection of the human with nature. To do this, I first investigate the complexity of the climate problem. Second, I discuss past conceptions of nature, from the ancient Greek conception of *physis* to twentieth century critiques about the devastation of the earth. In the third section, I discuss the contemporary ideological and political economic context of the climate problem, particularly neoliberalism and environmentalism. In the final section, I investigate alternative conceptions of nature by Bruno Latour, Jason Moore, Timothy Morton, Rosi Braidotti, Donna Haraway and Val Plumwood. I conclude that an important philosophical premise underlying the climate crisis is the distinction between humans (culture, or 'the social') and nature.

Introduction

The relationship between us and our environment at this moment can be a painful one. We live at the brink of an environmental crisis, yet it seems as though we are not taking sufficient action to stop it. The issue of climate change is bound up with our conception of nature, and the way we view ourselves as connected to it. A useful step in addressing the climate crisis is exploring these conceptions further. More particularly, we need to understand what it is in our relationship with nature that has led to such devastation. Moreover, it will be useful to understand what we can change that makes sustainable living, on a societal as well as on the individual level, more accessible to all evenly.

At this moment, we are experiencing a reduction in emissions because of the COVID-19 pandemic. To prevent further spreading of the virus, a large part of air-traffic, tourism and industrial production were shut down. With the cruise ships gone, the fish came back to the much purer canals of Venice[1], the skies above big cities were cleaner. At his Sunday address, Pope Francis said: 'The lockdown has reduced pollution and revealed once more the beauty of so many places free from traffic and noise. Now, with the resumption of activities, we should all be more responsible for looking after our common home'.[2] The question remains: how do we motivate ourselves and others to look after this common home?

The aim of this thesis is twofold: to locate and make explicit the philosophical premises leading to the climate problem, and in turn inquire how we can move past these philosophical ideas in order to once again live more 'at peace' with nature. For the first aim, it is necessary to look at conceptions of nature in the past and how contemporary ideas of nature are rooted in them. It is also necessary to critically understand the present ideological context of the current debate about nature, particularly two – arguably oppositional – contexts of neoliberalism and environmentalism. For the second aim, I look at alternative ways of thinking, so that we may change our ideas about nature in the future.

[1] Brunton, 2020
[2] Pullella, 2020

This thesis is first and foremost motivated by the societal and political urgency of the climate crisis. Increased levels of greenhouse gases in the atmosphere have led to more extreme weather conditions like extreme droughts, excessive rainfall, and severe storms. In addition, due to the heating up of the atmosphere, the sea level is rising because of large chunks of ice melting into the oceans, and the expansion of sea water as it warms. These developments will threaten complete communities and ways of living. This thesis is also motivated by my conviction that the way in which we relate to our environment reflects the way in which we relate to ourselves, other human beings, and other non-human animals. Therefore, I find it an interesting – and important – subject of philosophical inquiry.

Outline

The thesis is divided into four chapters. In the first chapter I will provide an introduction to the climate crisis that we face today. More specifically, I will discuss the complexity of the problem itself, but also the complexity of forming solutions to it. To illustrate this I will briefly discuss philosophical aspects of justice and responsibility.

In the second chapter I will examine conceptions of nature in the past. Here, I will provide a compact timeline of the 'evolution' of the concept of nature, starting with the Greek concept of *physis* and ending with Heidegger's commentary on 'the devastation of the earth' at the first half of the twentieth century. This timeline is not exhaustive, but it aims to gather the pieces of the puzzle that makes up our conception of nature. It shows us several important developments: The first is the development of 'domination' over the earth, from the biblical command to 'subdue the earth' to the Baconian idea of using nature for the betterment of the human condition. Second is the development of nature as being something mystical and dynamic to something similar to a machine and intelligible through scientific research. Finally, there is the fundamental split between human society and nature.

In the third chapter, I discuss the contemporary ideological context of conceptions of nature, particularly the contexts of neoliberalism and environmentalism. Neoliberalism is a critical description of the dominant ideology, or 'governmentality' that governs (Western) society. Neoliberalism relies on the exploitation of nature. It thereby influences the relationship between humans and nature. Environmentalism can be understood as the ideology that aims to preserve the environment. Neoliberalism and environmentalism often oppose each other, but they can also merge, for example, in 'green capitalism'.

In the fourth chapter, I am aiming towards the future while reviewing proposals of alternative ways of thinking about nature in the future. This includes Bruno Latour's idea of the 'modern constitution', the world-ecology perspective from Jason Moore, a development of an 'ecology without nature' by Timothy Morton,posthumanist ideas about nature and the environment of Donna Haraway and Rosi Braidotti, and Val Plumwood's ecofeminism. This chapter ends with a discussion in which I identify the overarching themes in these alternative approaches to nature and discuss what we need to do to implement change.

Chapter 1: The Climate Problem

Although there are still some who deny it, the problem of environmental change is scientifically established. The concentrations of greenhouse gases have increased, and now far exceed pre-industrial values. These changes are caused by humans: the increases in carbon dioxide – one of the primary greenhouse gases – come from using fossil fuel and 'land-use change'. The increases in methane and nitrous oxide come from intensive agriculture. This is why the changes in climate are also referred to as 'anthropogenic warming'. The increase in greenhouse gases has led to a rise in temperature, melting ice and extreme weather like droughts, heat waves and intense tropical cyclones.[3] The IPCC (International Panel on Climate Change) predicted in 2007 that these occurrences will only become more frequent and more severe in the course of the 21st century. The sea level will rise, because of the melting ice, causing entire islands and coastlines to disappear. Polluted air jeopardizes public health, especially in severely polluted areas like in China or India. The depletion of the earth and soil makes it harder to grow crops, causing food shortages in poorer countries. In other words, climate change is a global crisis that directly threatens the livelihoods of all people.

1.1 The political problem

The problem of environmental degradation begs for appropriate solutions, or at least a well-developed plan to reverse or put a stop to global heating. Unfortunately, despite these threats, such a plan is very slow in developing. That is most likely due to the complexity of the problem and the many dimensions that need to be addressed. Diving into all the discussions surrounding this topic would be too ambitious for the scope of this thesis. However, there are some aspects which I believe can illuminate my point here.

First, there is the fact that climate change is a global problem. Obviously, the environmental problem is not tied to state boundaries: pollution caused by one state's (economic) activities also affects the environment of surrounding states; it may even have effects in states on the other side of the world. Addressing such an issue requires inter-governmental cooperation. This poses a political problem: governments only have limited authority when it comes to global solutions to climate change. In addition, there is a clash of interests between states which makes environmental cooperation difficult.

A second political problem is the fact that climate change only works to deepen global inequalities. The asymmetries of the climate problem are multi-faceted. First, some nations suffer more from the effects of climate change than others. For example, poor island nations in low-lying areas will face ecological disasters if the sea level rises further and Africa will be dealing with droughts, which in turn will destabilize governments and cause conflicts.[4] What makes it worse is that it is exactly those countries that are least able to handle the destructions, consequently, their development will be pushed back decades. The responsibility for the climate problem is also unequally distributed. Developed countries like the United States emit much more greenhouse gas than poor nations. In fact, in 2001, the richest 20% of the world's population is responsible for over 60% of the emissions of greenhouse gases.[5] Presently, China has the highest emissions, due to their extensive export market; the emissions there can be largely attributed to the production of goods consumed in the West. This further

[3] IPCC, 2007, 5
[4] Roberts, 2001, 501
[5] Ibid., 502

complicates the issue of responsibility: the high rate of production in China – which causes these high amounts of emissions – also sustains Western economies.

1.2 Multi-faceted problem

It is not only the political problems outlined above that need to be considered. Solutions to climate change involve much more than just intergovernmental cooperation. In other words, it would not only apply change in politics, but also in other dimensions of society. To name a few: the natural sciences have to address what we need to do concretely to reverse this environmental degradation. To determine this, we need to know what causes climate change and what might reduce it. This is perhaps the 'simplest' problem because much scientific research has already been done. But then there is also the problem of the policymakers: how to translate scientific knowledge regarding climate change into policy, while also respecting individual liberty of its citizens. In addition, there is a significant economic dimension of climate change, it could even be labelled as an economic problem next to being an environmental problem. Western, capitalist economies have relied for centuries on the exploitation of natural resources. These resources are running out, which in itself might cause a 'collapse of capitalism'. In addition, addressing climate change has significant economic ramifications, since it will slow down 'progress'. To this I point I will return later.

Climate change also brings up a social problem: how can humans adjust their behaviour and attitude towards their environment. This could be as simple as properly disposing of your trash when you enjoyed a picnic in the park, or to recycle, to buy fruits and vegetables that did not have to be flown in from another continent etc. In addition, we need to find a way to motivate people to implement changes in their lifestyles, either by providing the right information, or to implement (economic) incentives. Sustainable development is ultimately a collective problem, and therefore it should be addressed on a collective level, especially since the majority of environmental damage is inflicted by large corporations, like Shell and Exxon. The social problem thus not only lies in determining the way we must change our behaviours, but also the extent to which we are individually responsible for living sustainably. Finally, the way we deal with our environment – which at this point, is quite destructive – is also very much a cultural issue. Western culture is centred around consumerism. Social status is determined by the 'stuff' we own, the cars we drive, the vacations we take, the food we eat etc. At this moment, the earth cannot keep up with the high rates of production and consumption, therefore addressing this cultural aspect may be a useful step.

1.3 Philosophical problems: issues of responsibility

The climate crisis raises questions about responsibility and distributive justice and the climate issue furthers inequality. Therefore, solutions should not solely focus on reducing greenhouse gas emissions but should also distribute the burdens and benefits fairly. Some propositions have been made, like the 'polluter pays' principle, the 'ability to pay' principle, and 'the beneficiary pays' principle.

The polluter pays principle states that those who cause the problem are morally responsible for solving it. Although this sounds intuitive and appealing, this principle has its pitfalls. First, because this principle is unable to account for the intergenerational aspect of climate change: part of the damage has been done by past generations. In that case, the polluter can no longer be held accountable. To solve this, we need to replace the idea of individual responsibility by that of collective responsibility, which in turn, contradicts the polluter pays principle: with

collective responsibility the collective is seen as the polluter rather than the individual members, while some members of this collective may not actually contribute to this pollution. This objection to the polluter pays principle illustrates that solutions to climate change bring up quite fundamental discussions about individual, collective and inter-generational responsibility. A second reason that complicates the polluter pays principle is that it seems unfair to those who were unaware that their actions caused such damage. Finally, it also does not consider whether the polluters are able to carry the burdens. Poor countries, for example, may have high rates of greenhouse gas emissions but not the financial means to do anything about.[6]

The 'ability to pay' principle holds that the nations (or 'actors') that have better financial resources should carry a larger burden than those with lesser financial resources. In effect, this would mean that Western democracies like the United States and Western Europe would have to pay more to lower emissions and offer relief to those nations that are hit the hardest. This principle addresses the un-equalizing nature of the climate crisis. However, there are some problems with it. First, some will find it unfair that they would have to pay to fix a problem that they did not cause. Second, what if (some of) the wealthy gained their wealth out of sustainable development? It would seem unfair that they have to carry the burdens just as much as those actors who earned their money by polluting practices. [7]

The 'beneficiary pays' principle is formulated as a solution to the problem that the polluter pays principle has with regard to the pollution caused by past generations. The idea is that the current inhabitants of a country which is polluted in the past, can still bear responsibility because they are 1) still related to their ancestors, who caused the pollution and 2) because they are still reaping the benefits of this pollution. The second point needs some explanation: the idea is that it is fair to let the later generations pay because they benefit from the (polluting) industrial activities of their ancestors, economically speaking.[8] A counterargument to this could be that if we were to adopt the idea that it is fair to let one generation pay for something that the generations before them have caused, this could also be applied to future generations. However, an important difference between our current generation and the generations before us, is that we are now aware of the environmental consequences of our industry, while former generations were not. Some still believe that the polluting practices of the present may somehow benefit future generations because of the economic 'success' it generates. In addition, it can also be argued that future generations do contribute to sustainable development, if we decide to finance it now with loans because of budget deficits.

1.4 Philosophical fundaments

To conclude, forming solutions to the climate problem is a challenge. This is not simply because of the clash of interest between different parties, but because there are many different relevant aspects to address when discussing sustainable solutions. In this chapter I have aimed to outline some of these aspects, which include the concern for the effects of solutions to climate change on the economy, the consumerist culture, inequality, responsibility, and justice.

[6] Caney, 2006, 747
[7] Caney, 2010, 214
[8] Caney, 2005, 756

It is because of these different aspects that the climate problem can be addressed from many different angles: from the social and political sciences, the natural sciences, economics and so on. In this thesis I wish to focus on the philosophical fundaments of the climate issue, because it may help us understand why the relationship humans have with nature can be so troublesome. Before we can fully engage in such discussions about responsibility and justice, we need to address more fundamental questions regarding our relationship with nature in general. More particularly, we need to understand our conception of nature underlying this relationship.

Chapter 2: The past

Before giving an overview of important contributions to the concept of nature, it is important to establish what is at stake. This is not just a discussion of perceptions of nature, but also of the way human beings relate to nature. A recurring theme in environmental debates is human domination of nature. In this chapter this idea of domination over nature is explored historically. In the context of this thesis, domination of nature is considered as ways of thinking about nature that justify a type of relationship between humans and their surroundings (their environment) where humans control, and extract from, nature for the betterment of their life. This idea of domination will be more thoroughly developed in chapter 2.

In this chapter, I aim to look at interesting contributions to philosophy that tell us something about the human relation with nature. It is not my intention to offer an exhaustive historical account of conceptions of nature; It will therefore not be a complete timeline of how the concept of nature developed over all of human history. Rather, it will be a discussion of important past contributions to the conceptions of nature we see recurring in contemporary discussions of nature. In *The Idea of Nature*, R.G. Collingwood roughly distinguishes three phases of thinking about nature: the Greek, or ancient view of nature, the Renaissance view of nature, and the modern view of nature. This chapter will be guided by the same timeline, except for some 'filling in' in between these phases.

2.1 Ancient views on nature

Underlying the human relationship with their environment is the definition human beings have of what 'nature' is. In Greek, the term for nature was *physis*. Originally, *physis* referred to the Aristotelian meaning of 'coming to be or growing things'. The Aristotelian understanding of nature – or *physis* – saw it as 'a primary principle of change and motion'. The Greeks also appreciated the regularities and order of nature. In addition, some Greeks viewed the earth as an organism, an entity with a 'soul, a living and feeling organism'.[9] They took these regularities and order, which had divine connotations, as a sign that there is some sort of intelligent creator, or that nature itself is an intelligent being or multiple intelligent beings. Greek mythology 'enchanted' nature by personifying natural phenomena, making them Gods. For example, the rising and setting of the sun was actually the sun god Helios (or Apollo, these were sometimes used interchangeably) riding across the sky in his chariot. The changing of the seasons was attributed to Persephone's journey to the underworld during the winter. In other words, nature was not only an organism (or a God), it was a living thing that achieved its own 'telos'.[10]

As we will see later on, Aristotle's natural philosophy inspired a way of looking at nature as a system which can be rationally understood through science around the twelfth century. There are two general reasons why: first, Aristotle's conception of nature as being a principle of motion or change [11], lays emphasis on causes, or the 'why' behind natural entities or phenomena.[12] This focus on causes has no doubt inspired this scientific turn in thinking about nature as something that can be - and should be – understood. Secondly, Aristotle has an

[9] Argyrou, 2005, 2
[10] Ibid.
[11] Aristotle's *Physics*, 193a, 19-21
[12] Ibid.

empirical approach to the natural sciences, he tries to explain and organize observed phenomena.[13]

The Greek word *Physis* was later translated into the Latin *Natura*, which translates to 'being born' or 'birth'. Martin Heidegger (1889-1976) already sees a problem here: it is this translation from *physis* to Natura that led to a loss of meaning for nature. This is because in *natura* the motion and dynamic aspects of *physis* are lost. I will return to Heidegger's ideas at the end of this chapter. We see here that the conception of nature is not only subject to change, but also that the way we think about nature impacts the way we 'deal' with nature. The re-introduction of Aristotle's natural philosophy presented a different conception of nature in the middle ages and inspired an empirical (and 'new' scientific) approach to it. In the rest of this chapter we will see that this empirical way of approaching nature has become central to the contemporary conception of nature and thinkers like Francis Bacon.

2.2 Nature in Christianity and in the Bible

*'And God Blessed them. And God said to them, 'Be fruitful and multiply and fill the earth and subdue it, and have dominion over the fish of the sea and over the birds of the heavens and over every living thing that moves on the earth'' (*Genesis 1:28).

The extent to which Christian ecology has contributed to the relationship humans hold with nature nowadays is a matter of debate. On the one side, there are environmentalist and thinkers like Lynn White who believe that the Christian call to 'subdue' nature is at the very root of the ecological crisis today, as it has created an anthropocentric narrative in which humans dominate nature. One of the earliest of such accusations was offered by 19th century philosopher Ludwig Feuerbach. Simply put, Feuerbach saw God as the projection of the human mind. He criticised Christians for an 'anthropo-theistic' religion[14] that attached no value to nature or the world because they were only concerned about their own salvation.[15]

Lynn white is equally critical of the anthropocentrism of the Christian religion. In an article, exploring the historical roots of the ecological crisis from 1967 – a time where the latter has not yet reached the urgency it has today – he points out the role of religion in the relationship between humans and nature. He points out that human ecology – the interaction between humans and nature – is intimately connected to our beliefs about nature and destiny: by our religion.[16]

To illustrate this, White draws a comparison between pagan religions and the Christian religion. Pagan religions were characterised by animism: they attributed some sort of spirit or demon to natural objects, giving non-living natural objects a sort of living character. This produced an attitude of respect for natural objects: they should not be disturbed, perhaps they should even be revered. Christianity on the other hand, did away with this paganism, and did the exact opposite: natural objects were no longer the object of reverence, but it was God's will that humans used and exploited them for their own needs.[17] According to White, Christianity is the most anthropocentric religion the world has seen: it presented a dualism of man and nature and moreover claimed the transcendence of man over nature. According to White, God's call to

[13] Ibid., 97
[14] Feuerbach, 2004, 12
[15] Moo, 2006, 449
[16] White, 1967, 1205
[17] White, 1967, 1205

'subdue the earth' is the root cause of the exploitative relationship and the consequential climate crisis of today.

On the other side, there are theologians but also geographers like Jeanne Kay who argue that such a conception is not founded on a proper understanding of the bible. Lynn White's critics accuse him of oversimplifying the complexity of the bible, particularly the ideological development of the concept of nature.[18] A similar criticism is offered by Jeanne Kay who proposes to better look into the context and linguistics of the old testament. She argues that the biblical view of nature can be summarized as a 'tool' of divine justice. God punishes immoral deeds with natural disasters or drought, and rewards moral acts with good harvests and an agreeable environment. Kay argues we must try to understand the biblical modes of communication before drawing conclusions about its environmental ethics.

The bible is historically resilient also for this reason: it can be interpreted – and it has been interpreted – in many different ways. It contains many seeming contradictions.[19] Such a contradiction can also be found in the idea that nature is God's tool to punish or reward people for their behaviour, like in Job, where a righteous individual is put to the test, through apparent punishments or misfortunes. In other words, biblical passages should not and cannot be understood on their own, because it might be possible there is an antithesis to be found later on. Kay argues that it is important to recognize this use of contradictions when we consider the Genesis commandment for Adam to 'subdue the earth', because that is not the whole story: a contradiction may be found later on when the biblical story develops.[20]

Another feature of the bible that we need to consider according to Kay, is the fact that it has been translated many times. Subsequently, the meaning of a word may be slightly altered through each translation, which may result in a word that has very different connotations than the original Hebrew or Greek. Kay argues that this is also the case in Genesis 1:28, particularly for the word 'command' in God's 'command to tame nature'. The Hebrew verb of 'command' is syntactically linked to 'blessings'. This would mean that initially, it would have stated something like: 'God's blessing to be able to dominate – or have control over - nature'. The meaning changes, because the benefits of a blessing need to be earned by righteous behaviour: 'Dominion over nature may not be a given for Adam's descendants, but may be an achievement which they will have to deserve'.[21] In addition, Kay points out that the idea of dominion over nature is parallel to the Bible's discussion of human kingship over human subjects and the idea of a 'good shepherd'.[22] God thus commands – or blesses humans with the ability – to rule over nature, but it must be done righteously, and it should not be exploited for selfish personal needs. Finally, Kay points out that human dominion over nature in the Old Testament is not unlimited. This is exemplified by the laws of Kashrut, which describe that whole categories of animals are not allowed to be eaten. In addition, human dominion over nature is constantly disrupted as a consequence of unrighteous behaviour.

All these aspects lead Kay to conclude that the understanding of Genesis as a justification for human dominion over – and exploitation of – nature is unfounded. On the contrary, she

[18] Moo, 2005, 251
[19] Kay, 1989, 220
[20] Ibid.
[21] Ibid.
[22] Ibid., 221

argues, the ecology of the bible is not so different from that of the modern environmentalist view. According to Kay, modern environmentalists see the human relationship with nature as follows: humans form a positive or negative disposition towards nature, they either choose to preserve or exploit it. A positive disposition results in a positive outcome: clean air, fertile soil etc. A negative disposition results in a negative outcome: pollution, climate change, lung diseases etc. The only difference, according to Kay, is that the biblical view puts God between humans and nature: God commands humans to be righteous, humans in turn are righteous or not, and God punishes or rewards them through nature. Eventually, the modern environmentalist movement, or the 'deep ecology' that Kay uses to compare the biblical view with, is also an ethical system.[23] The only difference is that environmentalism defines moral behaviour only in terms of observable ecological consequences, and the biblical view puts it in the entire scope of ethical situations.[24] To exemplify: consider the case where someone steals money. From a strictly environmentalist perspective this is not necessarily relevant, because it does not do harm to the environment. From a biblical perspective, God may punish this person through the environment, to – for example – ruining their harvest.

It may very well be that the story of 'dominion over nature' is not as black and white as it is often portrayed. It is, in my view, too bluntly put that passages like Genesis 1:28 are the direct cause of the dominating relationship between humans and nature. Not only because of the ongoing discussion of the meaning of the passage outlined above in which different positions are represented, but also because there are many other (ideological) elements that have contributed to the modern conception of nature. As we will see, these elements developed from the Scientific Revolution onwards, with the ideas of Francis Bacon.However, it cannot be denied that passages like Genesis 1:28 may have prefigured a dominating relationship with nature.

2.3 From Medieval to Modern

The Renaissance marked the transition from the 'Middle Ages' to the modern period. During the Middle Ages, thinking about nature was generally (closely connected to) thinking about God. In such conceptions, nature was either seen as 1) God's creation; 2) God's co-creator – as a divine being in itself; or 3) God's tool or servant – nature as a tool for divine justice. During the Renaissance, inquiry into the workings of nature was still very much linked to a fascination with magic. Interestingly enough, the idea of knowledge and mastery over nature had a dark shade in the renaissance. It was not only associated with magic, but it also had diabolical connotations. This is represented in the story of doctor Faust, who made a deal with the devil in his insatiable lust to understand nature's secrets and made a pact with the devil.[25] Therefore, Leiss concludes that the idea of mastery over nature 'has long been immersed in the darker side of the human psyche and has retained associations with evil, guilt and fear even in its recent secularized form'.[26] It is against this background, he argues, that the modern conception of mastery over nature was formed.

There exists a well-known narrative that the 'disenchantment' or the 'mechanization of the world-view' was achieved during – what is now called – the Scientific Revolution. At this time in the early modern period, there was a significant increase in interest in another natural-

[23] Kay, 1989, 220
[24] Kay, 1989, 228
[25] Leiss, 1994, 41
[26] Ibid., 44

scientific view of nature. However, it has also been argued that underneath the rationalist philosophies that were formed during this time, God remained an important aspect of natural philosophy.[27] Nature was still often perceived as 'The book of nature'. 'The book of nature' refers to the idea that nature is a second kind source, next to the bible, through which God reveals itself: 'the idea that nature is a text of God'.[28]

There are two philosophers whose works have contributed to a different understanding of nature that are especially relevant in the context of this thesis: Francis Bacon and René Descartes.

2.4 Francis Bacon

One work that cannot be neglected when considering seventeenth century ideas of nature, is Francis Bacon's utopian work *New Atlantis,* dating from 1626. This work is considered as the chief source of inspiration for the science of the enlightenment.[29] As Leiss points out, it was not so much Bacon's epistemology that has led to his popularity, but rather his call for support and progress in the mechanical arts (technology) and physical sciences.[30]

In this work, Bacon sketched the ideal society 'a model for a collaborative, scientific research community across the political religious and social spectrum'.[31] He sketched the ideal scientific institution, which he called 'Solomon's house' (or Salomon's house), which Bacon described as 'the lantern' of the kingdom of Bensalem – the name Bacon gave to the utopian island. Both the name Solomon and Bensalem had their special meanings and were derived from the Hebrew tradition; Bensalem translates to 'son of wholeness'. The scientific institution 'Solomon's house' refers to the King of Hebrews. The imaginary people of Bensalem possessed some parts of his writings – which were lost to other civilizations – which consisted of 'the natural history which he wrote of all plants, from the cedar of Libanus to the moss that growth out of the wall; and of all things that have life and motion'. Solomon's house was also referred to as the 'College of the Six Days' works', because it is finding out the true nature of the world that God had created within the six days of creation.[32]

Bacon's vision of the ideal science has been a fundamental inspiration for modern research institutions. He provides quite a thorough description of the ideal scientific institutions by explaining the four dimensions of this scientific society. The first dimension is the goal of science, the 'end of our foundation'[33], which is to uncover the causes and motions of things, and 'the enlarging of the bounds of human empire, to the effecting of all things possible'. The second dimension concerns the preparations and instruments for science, in which he describes what we would now call the research facilities in which natural phenomena, such as 'natural mines' are reproduced, so that they can be understood. These tools and facilities are also used to cure diseases and for prolonging human life. The third dimension describes the different employments and roles of groups of people who each contribute to science in their own way; some sail to foreign countries to collect books, there are 'compilers' and there are experimenters. The fourth dimension are the 'ordinances and rites'; Significant contributors to

[27] Jorink, 2010, 30
[28] Jorink, 2010, 25
[29] Leiss, 1994, 45
[30] Ibid., 46
[31] Price, 2003, 14
[32] Bacon, 1900, 17
[33] Ibid., 29

knowledge are honoured with a statue in 'two very long and fair galleries', and they have hymns and services to honour and thank God 'for His marvellous works'.[34]

Especially the first dimension is striking, Bacon encourages empirical observation of natural phenomena so that they may be used to benefit society.[35] For this, the second dimension, of tools and instruments, is important so that we are able to 'trap nature' into experiments. That way, we can replicate, observe, and understand natural phenomena.

With *New Atlantis,* Bacon furthered the increased interest in the natural world witnessed in the Renaissance. However, he perceived that there was some reluctance in society to encourage scientific innovation. As mentioned above, inquiries into the workings of nature were associated with demonic and magical practices. 'Meddling' with nature was feared to provoke God's wrath, as it was not His will that the natural order of things would be changed.[36] Part of Bacon's success was that he was able to fit the idea of mastery of nature into Christian thought. He referred to the consequences of sin in the story of Adam, where humanity has lost both its innocence and dominion. Dominion, he thought, could be restored through scientific progress. To restore innocence, if that is even possible, we need religious moral deliberation. He was thereby able to fit the pursuit of scientific progress into the Christian picture: 'Only let the human race recover that right over nature which belongs to it by divine bequest, and let power be given it; the exercise thereof will be governed by sound reason and true religion'.[37]

Another important aspect of Bacon's work is the conviction that scientific progress – and an extended mastery over nature – would lead to societal progress. It will make life easier and lead to social and material betterment. Therefore he argued for government support of scientific research.[38] This is also the reason why I believe it important to consider Bacon's work in the context of this thesis. Knowledge of the natural world is very much related to a sort of power, that can be used progressively, to better the human condition.

2.5 René Descartes

The mechanization of the world view has often been attributed to the philosophy of René Descartes (1596-1650). Descartes was concerned with developing a kind of 'master science' or 'master method' of scientific discovery. He argued for a reduction of complicated phenomena or schemes to simpler ones.[39] Descartes' idea of physics attributed everything to only two explanatory principles: matter and motion.[40] Consequently, the universe became like a gigantic mechanism. Simultaneously, this view did away with any occult or symbolic meanings of natural phenomena. From this point on, nature was to be understood quantitatively, through mathematics and classificatory rules.[41] By following this method, it was possible to fully understand the workings of nature.

In addition, for Descartes, the workings of nature could not be explained by the internal forces or the 'activity of God', but rather by the laws of attraction and repulsion, laying the foundations

[34] Ibid., 37
[35] Leiss, 1994, 47
[36] Leiss, 1994, 49
[37] Bacon, 2000, 115
[38] Leiss, 1994, 55
[39] Sorrell, 1987, 14
[40] Jorink, 2010, 6
[41] Ibid.

for the causality central to modern science. His 'love' for mathematics is not surprising seeing as Descartes is considered to be the founding father of early modern rationalism. Although Descartes believed that the external world exists, our perceptions of it may be distorted. In other words the perception we may have – the colours we see, the flavours we taste and the textures we feel – do not always correspond to reality. We can thus not fully rely on our senses to gain knowledge of the world surrounding us. This leaves us with a sceptical problem: how can we ever understand nature if we can never be sure of the perceptions we have? We cannot, according to Descartes, assume our knowledge on the basis of our perceptions we have of the world. The new foundation of knowledge is the famous *Cogito ergo sum* argument. We can only be sure that we are thinking and from that foundation, we build our knowledge. Descartes is thereby arguing for a rationalist science: doctrine of eternal truths: the foundations of logic and mathematics are necessarily true; they are so because God wanted them to be true.

This is only a very concise explanation of Descartes' scientific rationalism, but it helps us to understand another important legacy of Cartesian philosophy: The Mind/Body dualism. This means that mental phenomena are distinct from physical phenomena. Some thinkers, like Jason Moore, whose ideas will be discussed in the fourth chapter, have extended this Cartesian dualism to be fundamental in the way we see the world. This is because it separates objects from subjects. In many environmental writings, we see some form of this dualism. The general distinction between internal and external leads to distinction between subjects and objects and eventually to a distinction between the human (internal) and nature (external). It is exactly the latter distinction, which many environmental philosophers criticize and try to break down through alternative imaginations.

In conclusion, the works of Francis Bacon and René Descartes each represent an important change concerning the conception of nature in the seventeenth century. Descartes' physics positioned nature as something to be fully understood and reducible to simpler components, doing away with the mysterious and mythical connotations the study of nature formerly possessed. Nature as the 'source of marvels' was thus replaced as a big mechanism which can be understood through rational inquiry. Bacon's outline of the ideal scientific method posited the aim of science to understand fully the workings of nature. However, there is an important extension to this goal, namely the idea that this scientific knowledge of nature can be used for societal improvement or the betterment of the human condition in general. The shift from an Aristotelian approach of science to the Baconian scientific method has been described as a turn from 'why?' to 'how?': a shift from understanding nature's processes to using nature to transform the world.[42] So this period can be seen as being marked by this idea of nature as a machine. This idea was the culmination of both the belief in God – who is the intelligent creator of this machine – and the practical experience of the new sciences in designing and creating these machines for themselves.

It is not the case that after the seventeenth century the conception was freed from its ties to God. The relationship between reason and theology was still at the centre of philosophical discussions at the end of the seventeenth century and the eighteenth century. Jorink describes a reconciliation between natural philosophy and theology around 1700 that was only disturbed by Darwin's theory of natural selection and the general proliferation of evolutionary theory.[43]

[42] Leiss, 1994, 96
[43] Jorink, 2010, 17

2.6 Modernity

Collingwood[44] considers the modern conception of nature – the one in the nineteenth century – as having sprung from a different source: history.[45] During the nineteenth century, evolutionary theories of biology were developed, and rose to popularity by Charles Darwin's theory of natural selection. These new theories, linking the ancestry of humans to that of apes led to a paradigmatic shift across all scientific fields. Moreover, it directly challenged the Christian faith, particularly the story of origin that all humans descended from Adam and Eve.

Inspired by these evolutionary theories, historical development and progress became an important aspect of the modern conception of nature. Where the Cartesian worldview saw nature as a closed-off, rationally intelligible, machine, evolutionary theory inspired a worldview in which nature is something that is constantly evolving and renewing itself. This sounds related to the ancient concept of *physis*, which also emphasized the dynamic and 'coming into being' of the natural world. However, such a conception was no longer possible because it did not rhyme with the – at that time relatively new – scientific knowledge. The scientific method – as we have seen described in Bacon's *Atlantis* – had disenchanted the universe too much to still attribute to nature some kind of spirit, let alone to see it as an intelligent organism. Nature was no longer linked to a God-like figure, but it was somewhere in between that and a machine. Nature is not non-living because it has been capable of evolution and production of organisms. Though evolution, nature is even able to 'perfect' these organisms. In other words, at this time, nature was disenchanted through the new scientific mindset, but it was still living.

2.7 Dialectic of Enlightenment

The *Dialectic of Enlightenment*, written by Adorno and Horkheimer, is an influential contribution on the relation between man and nature in the twentieth century and also an important source for critical theory. Adorno and Horkheimer set out to understand why humanity is sinking into barbarism instead of entering into the truly human state promised by the 'Enlightenment project'.[46] This statement in itself requires some context. First, Adorno and Horkheimer were writing and thinking during the Second World War, they were thus witnessing the rise of the fascist Nazi regime and the barbarities committed by it. Second, they were discussing the enlightenment ideal of a kind of 'better' human condition as formulated by Immanuel Kant: 'Enlightenment is mankind's exit from its self-incurred immaturity. Immaturity is the inability to make use of one's own understanding without the guidance of another'.[47] How come this 'Enlightened project' has failed?- Horkheimer and Adorno ask.

One important theme in *Dialectic of Enlightenment* is the disenchantment of nature. Adorno understands nature to include both the material world and the environment that surrounds humans (external nature) and our 'internal nature', which is the 'somatic dimension' of humans. This somatic dimension means the physical body - the cells that make it up - as opposed to the 'psychological' aspect of human life.

What becomes of nature when the world is disenchanted? The change in the perception of nature is twofold: first, nature becomes meaningless, they have no 'reference beyond themselves'.[48]

[44] Collingwood, 1960
[45] Argyrou, 2005, 2
[46] Adorno and Horkheimer, 2002, xiv
[47] Kant, 2019, 58
[48] Stone, 2006, 232

Adorno and Horkheimer describe this as the 'extirpation of animism'.[49] In dispelling myths, enlightenment has rid nature of its 'spirituality' in the sense that natural objects possess some sort of spirit. Second, this meaning or 'reference beyond themselves' is replaced by the formula: 'the cause by rules and probability'.[50] This rendered matter – thus nature – as something to be controlled. With all the mystery stripped away, natural objects were considered to be fully intelligible and predictable.

Adorno and Horkheimer understand the enlightenment as a gradual process that spans history as a whole, in which each phase criticized previous systems of belief for being myths.[51] These myths give a presentation and understanding of nature while at the same time 'enchanting' it by attributing to natural entities some kind of soul or spirit that defies rational understanding.[52] Horkheimer and Adorno's argument regarding Enlightenment's attitude towards myth can be historically reconstructed as implying at least five stages[53] of increasing dis-enchantment: In the first stage, all of nature is experienced as having some sort of spiritual power, that cannot be understood. In the second state, animism identifies some things with a spiritual power, disenchanting the objects that are supposedly not inanimate. In the third stage, natural powers are believed to be embodying deities. This stage is exemplified by the Greek religion. They believed, for example, that the weather was simply a reflection of Zeus' moods. The fourth stage introduces a metaphysics which rejects belief in gods as natural phenomena, and they formulate universals. However, these metaphysical entities still retain their mysteriousness. The fifth stage is where science rejects belief in such 'occult' metaphysical entities and instead holds that natural phenomena are mathematical structures and relations. This final stage most radically disenchants nature.[54]

An important aspect of the disenchantment of nature is domination over it. Enlightenment wants to get rid of myth and fantasy and replace it with knowledge of the workings of nature so that it can be used to dominate. Here, Adorno and Horkheimer refer to Francis Bacon, who – as mentioned earlier – advocated the use of knowledge to improve humanity's condition. This knowledge of nature is then used to dominate it and other human beings.[55]

Adorno and Horkheimer's idea of mastery over nature is a fundamental part of the Enlightenment project: 'Enlightenment has always aimed at liberating human beings from fear and installing them as masters'.[56] Here, it is important to refer back to their conception of nature, which includes the 'internal nature' of humans as somatic beings. Adorno and Horkheimer were probably mainly concerned with domination of humans over other humans, or over other living beings, which is not surprising given the times they were living in.

However, Adorno also speaks of domination of non-living things: transforming them 'out of their original forms'.[57] Domination of non-living things thus consist of forcing them into a

[49] Adorno & Horkheimer, 2002, 2
[50] Ibid., 3
[51] Stone, 2006, 234
[52] Ibid., 235
[53] These five stages are not explicitly described by Adorno and Horkheimer themselves, but by Stone (2006)
[54] Stone, 2006, 236
[55] Adorno & Horkheimer, 2002, 1-2
[56] Ibid., 1
[57] Stone, 2006, 234

condition they would not naturally be in. Now, this domination may seem quite innocent: If we were to transform wood into a table, would the wood suffer from this new condition? We are perhaps too disenchanted with nature to see any harm. However, with the consciousness of the environmental crisis, this domination gains, I would argue, new meaning. Whereas before this awareness, we may have not considered that we are harming the tree, because it is not viewed as sentient and therefore cannot feel pain in the way that humans (and non-human animals) do. In that light, domination of living objects would indeed not be as relevant except for its connection with domination of other humans. However, with the awareness that transforming natural objects 'out of their original forms' causes environmental damage, the concept of domination makes sense in an ecological context. To illustrate, consider the practice of pumping fossil fuel. Oil consists of the remains formerly living organisms (plankton and algae), these organisms are now extracted from the earth in their dead form so that they can be used. These organisms – although they are dead – are 'dominated' because they are transformed out of their natural condition: they are extracted and used as fuel. Moreover, this process of domination produces a considerable amount of greenhouse gas emissions, which – as mentioned before – have further-reaching detrimental effects. In this context, domination becomes a useful way of criticizing and perhaps politicizing such practices. It offers a new ground to argue against the exploitation of nature: if we argue that domination of the human other is morally wrong - as Adorno and Horkheimer do – perhaps we can extend this argument to non-human others, i.e. non-human animals and 'natural objects'.

2.8 Martin Heidegger

It is hard to miss Martin Heidegger (1889-1976) in environmentalist discourse. Although he was writing from a quite different philosophical tradition than Adorno and Horkheimer. Heidegger was one of the first to treat the conception of nature in relation to the 'devastation of the earth'. He was critical of both the attitudes humans hold towards nature, and the conception of nature that underlie it. Some have described the period sometime after the Second World War and this concern about the environment as a fundamental shift in the organizing principle of society. From the industrial revolution onwards, society was constructed around industrial production. After the second world war, the new organizing principle became concern with the environmental risks generated by this industrial society.[58] One of Heidegger's influential ideas is the description of 'Dasein' as 'being-in-the world'. The idea is that humans are always embedded in their environment. There are three contexts in which Heidegger discussed the concept of nature: ontological, methodological, and technological.

The ontological context refers to 'the kind of being that nature possessed' [59]. There is an interesting distinction that he makes between two different kinds of conceptions of nature, that can be roughly described as a primary and secondary understanding of the natural world. The primary understanding, for Heidegger, consists of a kind of interaction with (natural) things in relation with their significance for human practical activities. This conception posits nature as 'ready-made equipment'. The secondary conception is when we step back from this engagement and reflect upon the things surround us. This secondary conception is the 'spectatorial' Cartesian view of the world as material matter moving according to the laws of

[58] Beck, 1992
[59] Cooper, 2005, 340

nature with reliable statistical regularities. Heidegger believed that the modern secondary ('derivative') conception was inferior to the primary ('primordial') equipmental conception.

Heidegger's methodological concern is directed towards the sciences. More particularly, he criticised the idea that the natural sciences – especially physics – were able, through the scientific method, to provide an objective 'true' account of the workings of nature, more particularly how nature functions independently of human perception. For Heidegger, the scientific image of nature is only one way in which nature (or 'all there is') 'presents itself'. The conviction that the sciences offer a comprehension of nature as a system of material objects, which becomes intelligible through mathematics, contributed to the dominance of the aforementioned secondary view of nature.

The way in which nature presents or reveals itself is – according to Heidegger – through technology. Heidegger criticised contemporary technologies for 'revealing' nature in a particularly impoverished way, ultimately leading to the devastation of the earth. This is because the technological way of revealing presents nature as something that stands at a reserve for humans to draw from to serve their needs. The earth is revealed as a coal-mining district and the soil as a mineral deposit.[60] Technology, for Heidegger, excludes any alternative way of revealing, such as aesthetic experience or wonderment. 'technology is at the farthest possible remove from that stance towards the natural world which lets beings be': for 'let be' is, precisely to stand open to a full range of ways in which things may be rendered manifest to us.

In sum, Heidegger criticised the modern conception of nature because 1) it was not derived from actual engagement with natural objects, but from a spectatorial vision of nature (it is secondary as opposed to primary); 2) the conception that the natural sciences had the ability to provide true, objective information of nature is incorrect; and 3) modern technology have transformed nature as a 'standing-reserve' which would ultimately lead to a devastation of the earth.

It is particularly the third point, I think, that connects Heidegger with the environmentalist discourse. He was very early to warn for the depletion of natural resources because of the ways in which we extract from nature at will. What is interesting is that he sees the cause of this as this secondary conception of nature. He favours the primary conception of nature which ties human experience back in. Cameron points out that this is why we should be critical of Heidegger's contribution to environmental philosophy.[61] Heidegger's ideas of nature are inherently anthropocentric. Heidegger describes the primordial relation with nature already as one in which nature is 'characterized by its serviceability, conduciveness, usability and manipulability'.[62] Environmentalist thinkers, on the other hand, have argued against this anthropocentrism as they lead to a harmful relationship between humans and nature. Relatedly, they propose to value nature and non-human living beings 'for their own sake'. A second reason in which Heidegger opposes environmental theory is that his instrumental account of the environment is tied to a distinction between the human 'Dasein' and every other kind of being. Environmentalist discourse tends to emphasize the connection and similarities between humans and other animals instead of positing them as completely different.

[60] Cooper, 2005, 345
[61] Cameron, 2004, 34
[62] Ibid.

There is, however, an alternative, third understanding of nature that Heidegger develops later on. As mentioned at the beginning of this chapter, Heidegger commented on the translation of the Greek term *physis* to the Latin *natura*. This is because he developed the primordial conception from initially being a more instrumental idea of nature to an understanding that is much more similar to the conception of *physis*. On this conception, the Greeks understood nature as a 'process of arising'.[63] *Physis* does not signify the natural world itself, but rather the 'happening' of nature, where a natural world presents itself for human beings to experience. The translation into the Latin *Natura* meant – according to Heidegger – a loss of meaning. *Physis* referred to the constant movement and process of growing of things, whereas the Latin word *Natura* was derived from the word 'to be born'. For Heidegger, this means that, where *physis* describes the 'event' of nature – the coming-to-be and growing of things – *natura* only describes the outcome of this event – the birth.

Heidegger critiques the secondary conception of nature and favours the primary one. It is not exactly clear, however, whether this primary conception refers to the instrumental vision of nature or the Greek notion of *physis*. Either way, for Heidegger, nature is essentially related to human existence, 'whether as so much 'equipment' in relation to our practical purposes, or as a mysterious 'presencing' that requires us, as the shepherds of being to be the recipients of that presencing. Without that reception nothing would ever become present to or for anything'

2.9 The development of the concept of nature

There are three themes which have developed in the course of this chapter which will be used in the remainder of this thesis. The themes are as follows: 1) dominion over nature 2) disenchantment of nature and 3) anthropocentrism

At the present day, we have developed a relationship with nature that justifies excessive extraction from nature, leading to environmental degradation. The opinions on the origins of this relationship vary. Some argue that the idea of human dominion over nature stems from the bible and God's command to subdue the earth. Others see human dominion over nature as a product of modernity, stemming from the Cartesian world view and Bacon's scientific method.

Adorno and Horkheimer's idea of 'disenchantment' of nature nicely ties in the patterns we have seen throughout the history of writing about nature. The idea is that we perceive nature to be increasingly transparent and intelligible. In the Greek conception of *physis* nature was considered as some kind of large living organism, constantly in motion. During the Middle Ages nature was tied to biblical views and magic. With the scientific revolution, and the 'mechanistic worldview' of Descartes, a vision of nature developed that considered it possible to fully understand the workings of nature, and that that knowledge should be used for the betterment of the human condition. Although this is a very simplistic summary of a very wide timespan, it illustrates how the disenchantment of nature developed.

I finished the chapter with Heidegger because I consider it to be a useful starting point from which to understand themes in twentieth and twenty first century environmentalism. Although he expresses worry about the way human beings devastate the earth, his conception of the environment still seems predominantly instrumental and anthropocentric. We will see in the fourth chapter that (anti-)anthropocentrism is an important theme in environmentalist discourse.

[63] Cooper, 2005, 342

Although his anthropocentrism and his distinction between humans and non-human animals are contrary to environmentalist thought, Heidegger makes us aware that – eventually – nature is that which we choose to call nature. It is constructed through our experiences, thoughts, believes and our ideologies. Climate change is a modern problem, but we see that the underlying conceptions of, and relations with nature, have developed over a much longer period of time. In the next chapter, I will discuss 'the present' conceptions of nature.

Chapter 3: The present

From reflections of the past we turn to reflections of the present. What are the prevailing conceptions of, and relationships with nature today? Conceptions of nature are part of ideological debates. These ideologies are sets of ideas that form the basis of a 'world view', they shape how we think the world is and how it ought to be. These ideologies are based on ideas we take to be 'common sense', while in reality they can be challenged, therefore these 'ideas' can also be described as myths. There are many myths surrounding nature as well, as we have seen in the previous chapter, like the belief that divinities punish and reward human subjects through nature, or that nature was magical during the middle ages. In other words, we always look at nature through culturally defined coloured glasses.

So what are the (ideological) glasses we wear today when we look at nature? Or, more specifically, what is the political-economic context of this climate crisis? Answering these questions may help us to understand why it has proven to be so difficult to find solutions to the climate crisis. One thing is clear: cutting carbon emission will hurt the economy.[64] The perception of the crisis is perhaps not urgent enough to sacrifice economic progress in order to prevent environmental disasters. Sacrificing now to reduce emissions is an investment in the future. Generally, long-term goals are harder to achieve than short-term goals. The IPCC points out that if we reduce emissions now, it will take centuries before the warming and sea level rise will stop. Climate change forms an immediate threat to our livelihoods, yet it has proven difficult to implement sustainable change. This can be attributed partly to the complexity of the problem outlined in the first chapter, but it is also due to a general 'governmentality' that favours economic progress over sustainability.

3.1 Neoliberalism

The policy-making that prioritizes economic development above all else is generally attributed to neoliberalism. Neoliberalism is a loaded term; it is mostly employed by critics of contemporary economic policymaking and politics. Generally, it means that the state serves the economy. The Foucauldian way of understanding neoliberalism posits it as a governmentality. 'Governmentality' refers to the way in which different mentalities or rationalities of government govern the 'subjects'.[65] These rationalities refer to ways of reasoning, which are influenced by the 'bodies of knowledge, belief and opinion in which we are immersed'.[66] Subsequently, the study of governmentality is a study of the 'organized practices through which we are governed and through which we govern ourselves'. [67]

Under neoliberal governmentality, all aspects of life have become infringed by economic values.[68] Neoliberalism is mainly associated with the United States and the United Kingdom but operates on a global scale and is dominant in most, if not all, Western states. Neoliberalism works on the same premises of accumulation, exploitation, and innovation as capitalism.[69] An important motivator in capitalism is economic growth. Capitalists earn surpluses, which are invested to further innovate, and in turn, to generate greater returns in the future. This economic growth and capital accumulation rely on technological innovation and exploitation of both

[64] Parr, 2014, 16
[65] Dean, 1999, p.24
[66] Dean, 1999, 24
[67] Ibid.
[68] Brown, 2015, 20
[69] Harvey, 1989, 180

nature and other humans. However, considering neoliberalism merely as a stage of capitalism might be too restricted as it is distinctive in 'taking the formal principles of a market economy and referring and relating them to, projecting them on to a general art of government'.[70]

Following Foucault, neoliberalism can be analyzed by using a triangle in which three angles represent the three domains of this governmentality. The first angle is political, the second economic and the third is the subject. In the angle of politics, the neoliberal state is responsible for providing an institutional framework with strong private property rights, free markets, and free trade.[71] Within the neoliberal state the capitalist orientation towards economic growth is dominant. Neoliberal politics offer market-based responses to regulatory problems. The neoliberalization of the state is also brought about through lobbying corporations, who have the economic means to support political campaigns in exchange for political support and beneficial policies. The second domain is the economy. Neoliberalism is market-based, and this manifests itself in the economy in the sense that neoliberalism aims at free markets with little regulation and maximal competition. Mostly the neoliberal state is concerned with achieving economic growth, which implies that they do 'meddle' in the economy, by supporting corporations with bailouts in times of crises, or tax breaks. Moreover, under neoliberalism it is not so much that the state leaves the economy alone, but rather the state main goal is to facilitate economic growth through an economization of the social.[72] This competition is not naturally there but it is, from a neoliberal perspective, necessary so it must be continuously ensured by the state.[73] Finally, neoliberalism has also affected the subject, through the subjectification into the *homo economicus*. This is because market-based rationality has extended much further than only economics or politics, it is the very way in which we structure our lives.

Neoliberalism is not necessarily a new form of liberalism in terms of specific policies, but its novelty lies in new ways of connecting and conceiving the state, society, economy, and the subject. In other words, neoliberalism is a new chapter in liberal governmentality.[74] This new 'art of government' is brought about by several divergences from classical liberalism. One of these is the economization of the state and social policy. In liberalism, the state structures the free market, in neoliberalism, the market structures the state. For neoliberals, economic growth is the only social policy, for economic growth should enable individuals to prosper.[75] Another divergence of classical liberalism is that neoliberalism replaced labor by human capital. People become an 'entrepreneur of the self', capital, rather than producer or consumer.[76] The final divergence I wish to discuss here is that neoliberalism has brought the market as justification and fundamental truth further. In liberalism, the economy was also the truth when economic government became good government. With neoliberalism, however, the market becomes truth and justification for every type of human activity.[77]

To concretely understand what neoliberalism entails, we may portray it as a model. A basic characteristic of a model is that it does not provide the complete explanation, or 'truth', of the

[70] Foucault, 2008, 148
[71] Harvey, 2005, 2
[72] Brown, 2015, 62
[73] Ibid., 63
[74] Ibid., 57
[75] Ibid. 63
[76] Ibid. 65
[77] Ibid.

way in which things 'are'; it is by definition 'never realised in a 'pure' form in the real world'.[78] Such a neoliberal model only reflects policy 'tendencies' that have been labelled – by its critics – as neoliberal. The 'model' that Castree proposes has 7 pointers.[79] The first is privatisation, which assigns clear private property rights to things which were formerly publicly owned. Second is 'marketisation' or commodification, which bring things under a 'market calculus' where they have not previously been. Third is deregulation, which refers to the tendency by the state to withdraw from certain social or environmental areas, so as to let consumers exercise their 'freedom of choice'. It also refers to the 'outsourcing' of functions that the states themselves could perform to 'quasi-state' actors. Fourth is market-friendly (de)regulation, which refers to the tendency to implement policies that benefit the market. The state then acts as a 'night watchman' of the markets. Fifth is the tendency to make state services more market-like in their operation. Sixth is the encouragement of 'flanking mechanisms'. This refers to the tendency to promote voluntary community groups to provide social support where the government has rolled back its state-support in social and environmental domains. Finally, there is the creation of 'self-sufficient' individuals and communities. The ethic that is promoted by a neoliberal state is one in which individual responsibility, freedom and independence are praised. It is considered 'good' if you do not have to rely on state-support.

It is important to understand that neoliberalism can be – and has been – understood in different ways. Therefore, an idea of the neoliberal model is useful in understanding the political aspect of neoliberalism.

3.2 Neoliberalism and the environment

Hopefully, it is clear by now that neoliberalism is not only a type of policy-making that favours free markets and deregulation. The economic way of reasoning has impacted social, political, and cultural life. Neoliberalism is mainly a term used by its critics, which could leave one to believe that it is not widespread. However, political parties representing neoliberal ideas remain dominant in many Western democracies. In other words, neoliberal thinking – although various and sometimes even contradictory – is a dominant way of reasoning.

In the previous chapter, I discussed the way certain beliefs shaped the relation between humans and their environment. The Christian religion, for example, puts nature somewhere in between God and His 'subjects'. What can we say about the relationship between a neoliberal way of thinking and the environment? There are several ways in which neoliberalism is relevant for an inquiry into the contemporary conception of nature.

The first, most obvious, point is that neoliberalism's ideals of the free market and economic progress have serious environmental consequences. Over-production and over-consumption – both a vital part of economic 'success'. They rely on traditional economic models which do not consider the environmental costs of production. Capitalism – which is intrinsically linked – relies on exploitation of natural resources. It is therefore no surprise that politicians or other actors that can be considered to represent neoliberal values tend to deny climate change[80], like Donald Trump. In sum, neoliberal solutions will always prioritize the economy. Applying neoliberal principles of the free market to a problem like global heating is useless. Neoliberalism is connected to a type of thinking that has technology and domination over the

[78] Castree, 2010, 1729
[79] Castree, 2010, 1728
[80] Sometimes they also admit that climate change is real but deny that it is caused by humans.

earth at its centre. As long as this way of thinking is dominant, we will not be able to address the issue of climate change properly.

The second way neoliberalism and the environment are connected is because, even though we engage with the environment – we change, repair, restore, extract, destroy etc. – we are ultimately not in control of the non-human world. At the same time, however, we heavily rely on the 'bounties of nature' for sustenance and we have no control over natural disasters – such as floods, hurricanes and earthquakes – that have a significant impact on the ways of living of entire communities. In the same way, neoliberalism relies on the non-human world for its success. The environment 'matters' to neoliberalism because it poses challenges and threats, but also opportunities to it. A vital part of the capitalism (and also neoliberal) triad is exploitation of nature. When the earth's resources are running out, this triangle cannot be sustained. In other words, the environmental crisis poses a threat to neoliberalism itself. Although there seems to be a tendency to deny – or ignore – the anthropogenic character of climate change, neoliberalism adopts some seemingly environmentalist approaches. It attempts to address climate change within the logic of capitalism and the free market. An interesting example of this are pollution or emission rights, that are used as a policy tool to reduce emissions. The idea is that a business needs permission to pollute a certain amount, which they should not exceed. The motivation for this was that it enables governments to control and distribute the amount of emissions. What happened, however, is that these rights can be bought on the market. Eventually, this defeats the purpose, because pollution rights trading is aimed at minimising costs for businesses rather than minimising emissions.[81] Another solution that stays within the logic of capitalism is the 'cradle to cradle' principle. This principle argues for a closed-loop production, where products are not thrown away once they have been used, but rather 'upcycled' so they maintain their value. The idea is that we throw away less, and we extract less while keeping in place capitalist production.

A third way in which the environment 'matters' to neoliberalism relates to the way in which humans attach meaning and significance to the non-human world[82]. Neoliberalism influences the relation between humans and nature because it renders the latter to be commodity. Nature receives monetary value; it becomes private property or a resource for production. The instrumental view of nature is taken to an extreme. McCarthy and Prudham links the 'restructuring' of social relations to nature to classical liberalism, particularly the liberal defence of private property rights. Classical liberal ideological practices included reconfiguration of property relationships, detaching nature from social constraints and placing it under the logic of the self-regulating market.[83] McCarthy and Prudham argue that neoliberalism to a large extent builds on classical liberalism, and trace the relevant political theory here, regarding the modern relation between humans and nature, back to John Locke. This is because Locke only attributed meaning to nature in relation with human labour. The consequence of this reasoning is threefold. First, it invites a purely instrumental conception of nature – nature has value in so far as it is 'used' by (or engaged with by) humans. Second, nature that is 'unimproved' loses its value under such a conception. Another important feature of Locke's thinking is his view of a 'moral economy' in which private property is central: 'for

[81] Beder, 2001
[82] Castree, 2010, 1713
[83] McCarthy & Prudham, 2004, 277

Locke, property relations constituted the foundation of a just and efficient social order'[84]. Finally, Locke also argued for unlimited individual accumulation of land and property, even when it far exceeds the amount that individuals could work themselves. In sum, private property rights are central to the forming of capitalist (neo-)liberal thinking and they transform the relation between humans and nature into an instrumental relationship where nature is 'managed via its commodification'[85]. Examples of this commodification are 'rights to pollute' (which can be bought) or entrance fees for 'public' nature reserves.

Finally, neoliberalism and nature are connected because of the rising popularity of environmentalism. McCarthy & Prudham see that neoliberalism and modern environmentalism have together been the main foundations of social regulations. Environmental protection by the state developed into a significant constraint on capitalist accumulation strategies.[86] This development is evident in the growth of green parties that form a serious opposition to the neoliberal parties. A green organisation in the Netherlands *urgenda* has brought the Dutch government to court to urge them to increase sustainable development. Neoliberalism will thus have to 'deal' with environmentalism as political and ideological opposition.

3.3 Environmentalism

Environmentalism has a significant impact on contemporary ideas of nature. The environmentalist discourse can be understood as a political, philosophical, and social movement that emerged from concerns about environmental decay. The core values of environmentalism can be described as follows: first, humans are a part of nature rather than separate from nature. Second, humans must respect and protect nature, and 'live in harmony' with nature. Third, we must not exceed the 'carrying capacity' of nature, which implies that we should limit our exploitation of it.[87]

Environmentalism has also been linked to a rejection or critique of modernity. The modern worldview of nature as being a manipulable machine that exists apart from humans gets the blame for mass war, violence, and repression. As we have seen, the same argument runs through Adorno and Horkheimer's *Dialectic of Enlightenment*: The Enlightenment promise to 'use' and dominate nature so as to make human life better has resulted in the domination of other people. One theme that springs from this mistrust of modern ideas of nature is the desire to return to pre-modern ideas about nature and the human relationship with it.[88]

3.4 The capitalist solution?

What view of nature results from these considerations? There seems to be an opposition between the neoliberal 'governmentality' and environmentalism that emerged out of the concern for environmental degradation. This opposition has been described as the predominant ideological and political opposition of this time. On the one hand, neoliberalism still relies on a modern idea of nature as a machine that can be controlled and exploited for human benefit. On the other hand, the environmentalist discourse criticizes this conception, and draws attention to the 'embeddedness' of humans in nature and aims for a harmonious way of living in – or with – nature. This project of harmonious living, however, does not necessarily offer handles

[84] Ibid.
[85] Ibid.
[86] Ibid., 278
[87] A more exhaustive list of environmentalist values can be found in Pepper, 1996, 11
[88] Pepper, 1996, 5

by which to deal with the climate problem. In the next chapter, I will discuss alternative ideas about nature.

Although in politics the opposition between ‘green’ parties and parties representing neoliberal values is evident, they do not always have to oppose each other. In sustainable development, there is still a focus on capitalist green solutions, like emission rights trade and ‘cradle-to-cradle’ production. These initiatives that apply a capitalist logic to sustainable developments stay within the neoliberal paradigm. However, I would argue that at the same time they are sustaining a relationship between humans and their biophysical environment that has produced an attitude of exploitation and destruction towards nature.

For this reason, I explore different conceptions of nature in the next chapter. As we will see, those conceptions are often tied to a different view on society, one that is not organised according to capitalist principles. However, these approaches will not fall into the dichotomy between capitalism and communism (or socialism) but rather, seek to transcend this and focus primarily on the relationship between humans and their environment.

Chapter 4: The future

Now it is time to move past the problems identified in the past chapters concerning past and present conceptions of nature. In this chapter I will discuss alternative conceptions of nature for the future. How can we change our conception and our way of relating to nature in a way that may foster a more sustainable way of organizing society? There are many thinkers – from different disciplines – who contribute to an answer to this question. Because of the scope of this thesis, I will discuss five different contributions. It is striking that these different ideas have important similarities, but they also differ on some points. These similarities and differences will be discussed at the end of this chapter.

4.1 We have never been modern

As mentioned previously, environmentalist thought is closely connected to a critique of modernity. Adorno and Horkheimer also implicitly and explicitly criticized modernity when they asked themselves what caused the failure of the 'Enlightenment project'. Bruno Latour, in his book *We have never been modern*, rejects the whole distinction between pre-modern and modern.

Bruno Latour is well known for his actor-network theory. It is not my intention to delve into this theory at length, but it does provide a background for the considerations regarding the Nature/Society distinction discussed in *We have never been modern*. The actor-network theory goes against the split between the human and the non-human because it posits both as coproducing parts of the network, and it attributes equal agency to them. To illustrate, in *Science in Action* (1987) Latour shows us that science, technology and society are continually coproduced in a process (or a network) of facts, theories, machines, human actors and social relations.[89] This goes against the idea that either technological change causes social change (technological determinism) or that social change causes technological change (social determinism) and instead posits them as part of a network.

What characterizes modern thinking is the separation between nature and society, the question that then pops up is why this distinction has become so entrenched into our thinking and sciences if we see that in reality, nature and the social are coproducing reality.[90]

In *We have never been modern*, Latour explores this separation between the social and the natural in modern thinking. Modernity starts, according to Latour, with the 'conjoined creation' of the human, the non-human and a crossed-out God. This crossed-out God refers to the process of 'ridding Nature of any divine presence' and also 'ridding Society of any divine origin'.[91] Thus, the truly modern keep God from Natural Law and from the laws of the Republic. Simultaneously, modernity erases this 'conjoined birth' and treats them as three separate communities. Latour compares the separation of the social and the natural world with the separation of the judiciary and executive branches of government, and thereby calls it a constitutional divide. The only difference is that up until now, there is no central vantage point from which both scientists (nature) and politicians (society) are studied. 'As soon as one

[89] Pickering, 1994, 257
[90] Ibid., 257
[91] Latour, 1993, 33

outlines the symmetrical space and thereby re-establishes the common understanding that organizes the separation of natural and political powers, one ceases to be modern'.[92]

One problem with this distinction is that we are dealing with an increasing variety of 'things' which do not exclusively belong to the social nor to the natural world, they are in a kind of grey area: not entirely human but also not entirely natural. For example robots, frozen embryos, psychotropic drugs and so on. More importantly, if we divide all things into a separate natural and social world, how can we think about issues like global warming, deforestation, the HIV/AIDS pandemic, or the COVID-19 pandemic? Latour wonders whether we can characterize an issue like climate change as human or as natural. Latour calls all these things, which do not properly fall under either nature or society, hybrids.

Latour carries on the analogy of the constitution further in pointing out that there is another problem to the Nature/Society divide; namely, that the 'full constitution' is not written: political constitutions leave out both scientific power and the work of hybrids, and scientists forget about political powers. The challenge is to create an 'anthropology of the modern world'. This anthropology should work out how society and nature are entwined, taking account of both political powers and the 'hard sciences'. It should explain 'how and why these branches diverge as well as accounting for the multiple arrangements that bring them together.'[93]. Such an anthropology not only defines humans, but also non-humans, and the relations between them.

In short, the 'modern constitution' refers to the fundamental divide between nature and society, leading the moderns to neglect the relation between the two sets of practices. Consequently, everything that happens in the middle – the hybrids – has no place. Nonmoderns, then, have to 'remarry' both dimensions, so that 'we may be able to accommodate the hybrids and give them a place, a name, a home, a philosophy, an ontology, and […] a new constitution.'[94]

4.2 The world ecology perspective

One perspective that quite generally represents environmental thought is Jason Moore's 'world-ecology' perspective. This perspective is offered against a background of a critique of the neoliberal, or capitalist way of 'treating' nature. He uses the term 'world-ecology' to describe the way humans 'are' in nature in a world-historical process. World-ecology is therefore not so much a theory but rather an approach to understanding the interplay between humans and nature. Moore employs the concept of *oikeios* to refer to this relation of species and environment.[95]

Central to the world-ecology approach is a critique of what Moore calls 'Cartesian dualisms', particularly the Nature/Society distinction. This dualism conceptualizes 'Nature in general' as separate from society – somewhat comparable to the division nature/culture as criticized by Latour. The general focus has been on how humanity leaves a footprint on the planet, and how capitalism affects nature. The distinction has also called upon humans to control nature and possess it. Moore opposes such thinking in a different way than Latour does, because he does not go into the issue of modernity. Rather, he proposes to see both humanity-in-nature as well as nature-in-humanity. This is a recurring theme in environmentalist thought. It emphasizes how humans are embedded in nature because humans are a part of it. Moore describes it as the

[92] Ibid., 13
[93] Latour, 1993, 15
[94] Ibid., 51
[95] Ibid., 4

'web of life'. If humans, non-human animals, and non-living nature are all connected in this 'web of life', then the distinction between Society/Nature (or Humans/Nature, or Culture/Nature) would be ontologically false. Therefore, Moore argues, we need to accept the relationship between humans and nature as ontologically fundamental.

Through the world-ecology perspective, Moore offers a different framework for understanding capitalism. Capitalism, in his conception, is a way of organizing nature and a particular relation between economic production and 'the web of life'.[96] Therefore, we should not see nature as a limit or economic growth. In political debates, policies that aim at sustainability are often weighed off against their economic ramifications. A popular new economic model by Kate Raworth called *Doughnut economics*, for example, also implicitly assumes that nature is a limit to human practices. While advocating for a more sustainable economics, she draws literal 'planetary boundaries' which should not be exceeded by economic practices. In contrast, Moore proposes to see any limits to capitalism as emerging 'historically out of the relations of humans with the rest of nature', or *oikeios*.[97] A view of capitalism as a world-ecology, rather than a social system which acts upon nature, has multiple implications.

First, although the beginnings of capitalism are often linked to the industrialization and the invention of the steam engine in the eighteenth century, Moore states that capitalism can be traced back to the sixteenth century. The process of capitalism – endless accumulation (creating 'surplus value') of capital, exploitation and consequentially the transformation of the earth – can already be traced back to the discovery of the Americas in the fifteenth century and to a different way of 'putting nature to work'. After all, this is where capitalism's great strength lies: the mobilization and combination of parts of nature for this project of endless accumulation.[98] The critique of 'mobilization' of nature is a theme which often recurs: Adorno and Horkheimer also criticized the Baconian idea of 'putting nature to work' to install humans as the 'masters of nature'.

Another interesting implication of Moore's world-ecological interpretation of capitalism is that it also understands neoliberalism in a different way. For Moore, neoliberalism is simply the contemporary 'round of capitalization', which has even further embedded trends of commodification and liberalization.[99] Therefore. the solution does not lie in new rounds of 'green' capitalization, or new forms of capitalism. The problem lies in capitalism itself. Capitalism is exhausting its sources and nourishments, through its exploitation of nature of nature[100] and exploitation of 'cheap nature'.[101]

Moore argues that capitalism's logic of 'cheap nature' has come to an end; we need a new approach. Moore offers several premises on which to continue. The first is to view the relation between humans and the rest of nature – humanity-in-nature as well as nature-in-humanity - as ontologically fundamental. Second, we should adopt a new methodology in which we view capitalism's and modernity's history in terms of successive historical natures.[102] In addition, we must think about a different way of narrating socio-ecological limits, without the dualisms

[96] Moore, 2015, 2
[97] Ibid., 30
[98] Moore, 2015, 86
[99] Ibid., 165
[100] Ibid., 87
[101] Ibid., 164
[102] Moore, 2015, 291

that – according to Morton – 'drip with blood', such as Nature/Society, Black/White, Men/Women etc. In sum, Moore believes that the climate problem should be mainly addressed by installing a new kind of world-ecology to replace capitalism.

4.3 Ecology without nature

In his book, '*Ecology without nature*' Timothy Morton argues that the very idea of nature undermines ecological imaginations – ethics, politics, and culture. The idea of nature which so many hold dear will have to 'wither away' in an 'ecological state of human society'.[103] Morton and Latour both start from the point that there is this mental distinction between humans and nature that put nature away as something over there. As we have seen, Latour approaches this problem in the context of actor-network theory and is interested in the way scientific knowledge about nature is translated to 'the social', or politics.[104] Morton, on the other hand, approaches this issue as an aesthetic one.

Environmental thinkers often express the need for a new 'worldview' that disrupts the instrumental mechanical way of thinking about nature. Deep ecology, for instance, argues that we need to think through a shift from anthropocentrism to ecocentrism. As we have seen before, a critique of anthropocentrism runs through environmental debates like a red wire. The transition between different '-cenes' we will also see recurring in Donna Haraway and Rosi Braidotti's posthumanism later in this chapter. Morton does not further engage in discussions of anthropocentrism because then, one would also have to address the question of what exactly counts as 'human' and what counts as 'nature'. Ecological thinkers believe that changing our worldview might generate a new way of thinking that is capable of transforming human politics and society.[105] As we have seen before, 'worldview' is a matter of ideology, and ideology is determining the way we look at nature.

Morton, however, does not believe that ecology is a matter of world-view change. Such an approach still positions nature as something around us, sustaining human life. Such a worldview can be ecological: nature sustains us, it is something good and therefore we should not exploit it to the point of environmental destruction. Morton argues that such a position is counterproductive: 'putting something called nature on a pedestal and admiring it from afar does for the environment what patriarchy does for the figure of a woman'.[106] Here again, we see the recurring critique of the dualism Society/Nature that puts nature as something external from us. 'Putting nature on a pedestal' refers to ecological and aesthetic tendencies to represent nature, like a pristine landscape that should be admired and respected.

Thus, if we should not 'put nature on a pedestal', then what approach should we take? Morton's project, inspired by deconstruction aims to take apart the meaning of nature. We have made a list of things which we call nature – vegetation, non-human animals, water, air etc. - this list will probably differ depending on the cultural (or ideological) background. Morton aims to refrain from making such lists. On the contrary, he aims to take these lists apart 'and put into question the idea of making a list at all'.[107] Morton borrows the idea of putting nature on a

[103] Morton, 2009, 1
[104] Holmes, 2012, 57
[105] Meyer, 2001, 2
[106] Morton, 2009, 5
[107] Ibid., 12

pedestal, as seeing it at something 'over there' from Adorno's critique of the modern domination over nature. [108]

Morton's project of 'taking apart' the concept of nature starts with a description of three different meanings of nature in symbolic language: first, it is a kind of umbrella term, or a 'placeholder' for other concepts. For example, a mountainous landscape, the trees, the birds, the sky etc. Second, it represents a kind of norm, a force of law. Nature is used to discern that which deviates from the norm by calling it unnatural. 'Natural', then, means the way things are supposed to be, by nature, even though this is – in reality – a matter of culture and convention. Third, nature can be understood as a 'pandora's box', it can have an infinity of meanings, and consist of an infinity of 'fantasy objects'. It is nature understood as some transcendental divine 'thing'.[109] As we have seen previously, nature has often been tied to God or at least some sort of spirituality.

According to Morton, there is no such thing as 'nature' that has an essence and exists independently from humans. This is similar to the idea of Heidegger, although he emphasized the instrumental relationship between humans and nature. However, even though nature 'in itself' does not exist, ideas and ideological fixations regarding nature have considerable influence over the way we assume certain attitudes: ideologies determine the meaning of nature. To illustrate: what if we were to ascribe to trees similar sensations and emotions that humans experience, would we still cut them down? We have seen that pagan religions had a completely different way of understanding nature (or natural objects) because they believed natural objects possessed some sort of spirit, which should not be disturbed.

In *Ecology without nature* the aim is to be critical of the ecocritic. As the title suggests, Morton argues for an ecology that does not make any assumptions about what nature is, and it is therefore critical of ecological theories that do make assumptions about nature, more specifically, that put nature 'on a pedestal'. His ecocritique examines how nature is 'set up as a transcendental, unified, independent category' and it is not afraid to say, 'in the name of ecology itself: 'down with nature!''[110]

What is important in forming this 'rhetorical construct' of nature is what Morton calls 'ambient poetics, a way of conjuring up a sense of surrounding atmosphere or world'[111]. This is why Morton's approach focuses on the role of art in constructing nature. Through art, we create the fantasies and therefore also attitudes towards nature. Art is also responsible for 'putting nature on a pedestal'.

Creating this poetic 'ambience' is an interesting approach to ecology. As we have seen before, the dualism Society/Nature is often perceived as the fundamental philosophical reason for the anthropogenic destruction of the environment, this dualism is derived from the general distinction between the internal and the external, the subject and the object. Morton suggests that through ambient poetics, we may experience how we are embedded and inherently connected to our environment. In such an experience, the 'subject' and the 'object' (human and their environment) fuse into one. In addition, this fundamental distinction between object and subject is pierced by the aesthetic experience of being fully immersed in the world. If we can

[108] Ibid., 8
[109] Ibid., 14
[110] Morton, 2009, 13
[111] Ibid., 22

experience this 'embeddedness' into nature, we are less likely to destroy it. Conversely, putting nature on a pedestal does the opposite: it holds intact the distinction between the object and the subject. This is why Morton is critical of Romanticism: its glorification of nature puts it at a distance from us.

Morton states that 'the ultimate fantasy of ambience is that we could actually achieve ecology without a subject'.[112] In other words, to actually achieve such ambient poetics is wishful thinking, or what Morton calls 'the beautiful soul syndrome'.[113] The idea of 'I am immersed in the world' is a paradox, just like the statement 'I am lying'. If I am fully immersed in the world, the distinction between subject and object would not exist, and therefore the 'I' could not exist either.

Ecocriticism suffers from 'the beautiful soul syndrome'. This beautiful soul separates humans from nature, but it also yearns to close this gap.[114] This ecological beautiful soul is still stuck within 'Romantic consumerism', which makes 'of the forest a shop window – and allows the ambience of a shop window to be experienced as the temple of nature'. This beautiful soul syndrome leads ecological art to paint a picture of a 'distant' wilderness that soothes our pains caused by the ugliness of the world – Morton calls this, the 'leakiness of the world'.[115]

Morton proposes an alternative to this ecological idealism, which he dubs 'dark ecology' which aims at 'having greater fidelity to things'.[116] This dark ecology does not engage in escapism from the world's problems, rather it embraces the ugliness, to 'love the disgusting, inert and meaningless'.[117] The task for ecology is thus not to 're-enchant nature' by idealist narratives, but rather it should expose the ugliness of nature, so that we are simultaneously confronted with the anthropogenic destruction of it. To do this, ecology should rid itself of any conception, or theory of nature.

4.4 Posthumanism

Another interesting source for future imaginations of nature can be found in posthumanist theory. Posthumanism, like the discourse on neoliberalism, is first and foremost a critical discourse, and has been defined in different ways. It can be understood as a reflection on how contemporary technologies rethink the human.[118] It underlines how ideas about human nature are historically constructed. It aims to replace – or at least challenge – the ideas we attach to 'the human'. Posthumanism generally springs from a critique of the humanism of the Enlightenment. Adorno and Horkheimer also started with a critique of enlightenment, but they did not focus on humanism – it is only mentioned twice in *Dialectic of Enlightenment.* Since posthumanism is somewhat of an umbrella term, many thinkers can be associated with it, including Donna Haraway, Judith Butler and Bruno Latour. Posthumanism is also understood as a historical moment that ends the opposition between humanism and anti-humanism, looking for new alternatives.[119]

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[112] Ibid., 183
[113] Ibid.
[114] Ibid., 118
[115] Morton, 2009, 159
[116] Ibid., 142
[117] Ibid., 195
[118] Callus & Herbrechter, 2012, 241
[119] Braidotti, 2013, 37

For the sake of clarity, I will stick to the posthuman theory of Rosi Braidotti. She sees posthumanism as an empirical project that aims to experiment with what contemporary, technologically mediated bodies are capable of doing.[120] For this reason, it is often linked to transhumanism. However, transhumanism is significantly different, as it is concerned with the possibilities of 'improving' human life and overcoming human limitations by the advancement of technology through an interdisciplinary approach.[121] Posthumanism, on the other hand, is not concerned with improving the human, but it starts, most generally, with the position that we ought to find a new way of thinking about the human. As Judith Butler comments: 'the only way to intervene in the contemporary production of the posthuman is to enter its terms, to discern new ways of becoming within that contemporary condition, and to engage in modes of relational community that can realize a more sustainable and just future'.[122] In other words, anxieties about the posthuman in this contemporary technological world, can be addressed by thinking of new ways of 'becoming' human. To fully understand this it is important to discuss several elements of posthumanist theory: first is technology, second is anti-humanism and finally, post-anthropocentrism.

First, the posthuman condition is one in which the human is increasingly technologically mediated.[123] Because of the rapid pace of technological developments, the human has become an increasingly 'unstable category for reflection'.[124] Thus, posthumanism reflects on how contemporary technologies force a rethinking of the 'integrities and identities of the human'.[125] It tries to make sense of a new kind of subject.

Posthumanism is a critical discourse inspired by anti-humanism and critical theory. Anti-humanism criticizes the humanist universalism of man. Anti-humanists pointed out that the humanist ideal of man, which has 'reached the status of a natural law'[126], is in fact a historical construct, contingent to values and locations. More specifically, individualism, which liberal thinkers understood as being part of human nature, is historically and culturally specific. Moreover, we find that individualism is becoming increasingly problematic, as it seems to express itself in selfishness and greed. These ideas also echo through critical theories such as feminism, post-colonial studies, race studies and environmentalism. According to Braidotti, this universal image of man as posed by humanism turned out to be predominantly white, male, and 'able-bodied'. Moreover they questioned the humanist definition of the human, particularly the 'ideas of transcendental reason and the notion that the subject coincides with rational consciousness'.[127] For example, post-colonial theorists point out that this rationality of Western European civilizations coincided with barbarities in the colonies. Braidotti's critical posthumanism builds on these anti-humanist ideas but aims to go past the opposition between humanism and anti-humanism and look for new, alternative ways of thinking about the human.[128]

[120] Ibid., 61
[121] Bostrom, 2005, 3
[122] Blaagaard, B., & van der Tuin, 2014, 22
[123] Ibid., 61
[124] Callus & Herbrechter, 2012, 260
[125] Ibid., 241
[126] Braidotti, 2013, 23
[127] Ibid., 2
[128] Braidotti, 2013, 37

Finally, posthumanism is – like ecological theory – critical of anthropocentrism. 'Post-anthropocentrism' is concerned with the 'de-centring' of man and the end of man as the measure of all things. Braidotti's posthuman post-anthropocentrism is an interesting contribution to ecological theory. An important element to Braidotti's post-anthropocentric world view is Spinozist monism. According to posthumanist monism, all matter is one and there are no dualistic entities, or Cartesian principles of 'the external' and 'the internal'. A worldview that has this monism as its 'building block', according to Braidotti, creates a nature-culture continuum, where nature and culture are no longer perceived as two separate entities.

Braidotti characterizes this post-anthropocentrism as 'the politics of life itself'. This politics of life refers to the extension of political and moral deliberation to non-human 'things' (including animals), which we already see in environmentalism and animal rights movements. Inspired by the monist theory of the universe, boundaries between different species come down, connecting the human to 'the wider scope of animal and non-human life, also known as *zoe*'. An example of this is the rise of animal rights activism in liberal democracies. This movements calls for moral and legal equality of animals. Nevertheless, although this movement exemplifies the politics of life, Braidotti still believes it is flawed. This is because it still holds onto the binary distinction of human/animal, since it aims to extend the human category (in the form of human rights, for example) to non-humans.[129] Braidotti states that the point of posthumanist relations is to see human/animal as constitutive of the identity of each. 'It is a transformative or symbiotic relation that hybridizes and alters the nature of each one and foreground the middle grounds of their interaction'.[130]

The question of the dualism Nature/Society also recurs in posthumanist discourse, as it is also a quest for a different 'kind' of subjectivity, as Callus and Herbrechter asked themselves: 'What comes after the subject?'[131] If the aim of posthumanist discourse is to enter into post-anthropocentrism, the challenge is to find a way of understanding the world and the place for the human subject in it, without having the human at its centre. This necessarily raises questions about the relation between object and subject – which is the more general relation that underlies the relationship between humans and their environment. Braidotti proposes that the posthuman subject emerges as an 'expanded relational self that functions in a nature-culture continuum and is technologically mediated'.[132] According to Braidotti, posthuman theory can then be seen as a tool to rethink our idea and also the 'place' of the human in this 'bio-genetic age known as the Anthropocene, the historical moment when the Human has become a geological force capable of affecting all life on this planet'.[133]

From this posthumanist perspective, we may approach an inquiry about our environment differently. Andrew Pickering points out that the sciences – and their inquiries – are based on the fundamental divide between the human and the non-human. The natural sciences study the world of things from which people – or 'the social' – are absent. Although humans may interfere in the natural systems, it is not the task of the natural sciences to understand this interference, but only the systems themselves. The social sciences, on the other hand, only focus on people.

[129] Ibid., 78
[130] Ibid.
[131] Callus & Herbrechter, 2012
[132] Braidotti, 2013, 61
[133] Ibid., 5

Of course, it is not hard to think about a world of things without people, but it is difficult to think about a people without a world of things surrounding them.

Pickering describes one – although he states there are multiple – solution to this problem. That is the idea that we do not encounter the material world in its raw form, but rather as things which we have already attached meaning to. In that way, the material world is transformed into a system of human meanings.[134]

Instead of approaching the environment in two separate ways, Pickering argues for a way of 'seeing double', to try to see the interdependence of the human and the non-human. Such a shift in analysis offers a new object of enquiry, a posthuman object. The most important quality of this posthuman object is that 'it becomes': 'it does not display the atemporal regularities that physics, ecology or sociology like to look for'.[135]

What does this mean for thinking about the environment? Posthumanism offers a third way of looking at the environment, aside from the studies of the material environment (natural sciences) and the constructivist studies of the social sciences. This third way is 'in a different space', a study of posthuman intertwinements which couples the 'becomings' of the human and the nonhuman. From such a perspective, we can understand everything 'becoming' and evolving together. To me this has a familiar ring, as it seems similar to the Greek concept of *physis.* It is in the interaction and interdependence that we can 'look for the beauty'.[136]

4.5 The Cthulucene

As we have seen previously 'the issue of the -cene' is a recurring theme in reflections of the environment. It is a way of looking at the development of the relationship between humans and nature throughout history. We went through the Holocene – the era where the earth regulates environment (or the environment regulates itself). Through the invention of new technologies, we moved to the Anthropocene, where humans exerted significant control over the regulation of the environment. As we have seen before, the Anthropocene is also considered as a kind of mindset in which humans see themselves at the centre of the earth. Moore – among others – has proposed that the era we are living in now is better described as the 'capitalocene'. [137] This 'age of capital' is based on a relation with nature that enables the capitalist goals of enhancing labour productivity. This relationship with nature sustains the capitalist cycle of exploitation, innovation, and accumulation. In this context, nature is external. 'The idea of nature as external has worked so effectively because the condition for capital's self-expansion is the location and production of external natures'.[138]

Donna Haraway proposes a new era: the 'Cthulucene' which she describes as 'a kind of time place for learning to stay with the trouble of living and dying in response-ability on a damaged earth'.[139] Haraway's ideas connect to the posthumanist discourse. She also stresses that a vital part of being human is that we are always becoming-with others. With 'others', Haraway not only refers to other humans, but also non-human animals and non-living things. This 'becoming with' is natural: human beings are made up of bacteria and we consume plants, animals, and

[134] Pickering, 2005, 29-30
[135] Ibid., 35
[136] Ibid., 41
[137] Moore, 2014
[138] Ibid., 4
[139] Haraway, 2016, 2

other organisms. 'Becoming with' is also social, 'living well' requires engagement with other 'critters' – as Haraway calls them. This requires breaking down human exceptionalism and individualism.[140] The term that Haraway uses to describe this 'becoming with' and 'living' with each other is sympoiesis, which translate to collective action. This emphasis on collectivity and connectivity is what connects Haraway's idea to posthumanism.

What does it mean to be 'living and dying in response-ability'? Most basically, response-ability is the ability to respond to other humans, but also to other species and objects. In other words, it is the ability to respond appropriately to one's surroundings, while being aware of the connections between it and the self. It is about cultivating 'collective knowing and doing'.[141] This response-ability includes an idea of ethics and attentions to 'affect entanglement and rupture'.[142] We need this response-ability to live well, and to respect our 'becoming-with' with others.

Haraway does not only offer these alternative practices of living in response-ability, she takes a quite unconventional way in science of developing these ideas through science fiction. It is a 'speculative anthropology' in which she imagines a completely different future, without trying to predict or determine something. This 'speculative fabulation' is about the 'Children of Compost', is committed to 'strengthening ways to propose near futures, possible futures, and implausible but real nows'[143] The 'Children of Compost' is a community that lives on this earth, which is even more destructed than we experience right now. They survived through sympoiesis, through living and becoming with other species. They reduced the number of humans living on the planet and bringing a new human infant into the world is a collective decision while also cherishing reproductive freedom of the individual. They break down the distinction between human or nonhuman, and rather see their kind as 'humus'.[144] In sum, the story is an imagination of a future in which humans – perhaps it is better to say 'critters' to stay in Haraway's vocabulary – survived the destruction of the earth through response-ability and sympoiesis, and thereby having achieved the 'cthulucene'.

4.6 Posthuman ethics

Now that I have discussed both posthumanism 'in general' as described by Rosi Braidotti, and Donna Haraway's idea of the Cthulucene, I wish to conclude this discussion of posthumanism by elaborating on a posthuman ethics. This posthuman ethics is necessarily bound up with an idea of nature, and also an 'ethics of nature' – how we ought to relate to that which surrounds us. There are several aspects that are important in imagining a posthumanist ethics.

First, posthumanist ethics is anti-individualist. It takes from anti-humanism the aversion for the individualist mindset of the humanist transcendental, rational view of human nature. The idea that human nature is essentially individualist is only a 'historically and culturally specific discursive formation'[145] Posthumanist ethics aims to move on from this towards collectivity. Braidotti is inspired by a monist conception of the universe, which connects all life (and non-life) to each other. Again, this idea also breaks down dualisms of external/internal and

[140] Hörst, 2019
[141] Haraway, 2016, 34
[142] Ibid., 68
[143] Haraway, 2016, 136
[144] Ibid., 140
[145] Braidotti, 2013, 24

culture/nature. What this monism entails for humans is that they should not conceive of themselves as separate entities, as the individualist vision of humanism did. Human beings are not only connected to each other, but also to the rest of life, or to the rest of matter. They are connected to non-human animals, and even to non-animals, to the environment they are living in. As Braidotti puts it: 'I define the critical posthuman subject within an eco-philosophy of multiple belongings, as a relational subject constituted in and by multiplicity, a subject that works across differences and is also internally differentiated, but still grounded and accountable'.[146]

The experience of interconnectedness requires us to be aware of the relationship we form with 'the other'. We have seen this in Haraway's ideas as well. A good way of living should include a good way of living with the other. Posthuman theory pays attention to the 'erosion of the boundaries setting the human from its other poses'[147]. 'The other' generally refers to three different 'types' of others. First is the human other. Critical theories have pointed out the neglect of the other in humanism and Western liberal theory. The others, in this sense, are for example women, people of colour, and people belonging to the LGBTQ+ community. The 'subjectivity' of humanism that Braidotti criticizes was associated with a kind of universal rationality and was set off against differing 'others', who supposedly did not possess this type of subjectivity. Second, the other also applies to non-human animals. As mentioned before, this is raised by literature on 'speciesism' by philosophers such as Peter Singer. Third, the other can also refer to non-animals, to nature or the environment that we are living in. In this 'other' posthumanist ethics is inspired by environmental theory. It is therefore no surprise that Braidotti refers to her posthumanist ethics as an 'eco-philosophy'. Bringing 'the other' back in is a vital part of establishing the posthuman ethical community.

Taken together, posthumanist ethics rely on connectedness, where the boundaries and distinctions between humans and others fade. It is an 'eco-philosophy of multiple belongings'.[148] Thus, posthuman ethics does not mean disregard for humans, or de-humanization, but rather an increasing regard for community, and belonging. Moreover, it 'reconnects' the human with their surroundings.

4.7 Ecofeminism

The final thinker I wish to discuss here is Val Plumwood. She is one of the earlier commentators on the distinction between the human and the non-human world – or the human/nature distinction. From a feminist perspective, she takes the restructuring of the human relationship with nature to consist of two parts. First is reconceptualizing the human and second is reconceptualizing self, particularly conceiving of different ways in which the self can relate to nature in non-instrumental ways.[149] For both these reconceptualizations, it is necessary to reject what Plumwood refers to as 'masculine models' of humanity and of the self.

The first element of Plumwood's discussion is the similarity between anthropocentrism (the human is at the centre) and androcentrism (the masculine, or man, is at the centre). They are both linked by the rationalist conception of the human self as masculine. Reconceptualizing

[146] Braidotti, 2013, 49
[147] Ibid., 251
[148] Ibid., 49
[149] Plumwood, 1991, 18

the human, for Plumwood, involves a critique of this rationalist conception. She critiques environmentalist and deep ecology approaches for uncritically assuming a rationalist ethical framework. Environmental thinkers have rejected the instrumental treatment of nature. Instead, they argue that we should respect nature as having their own right as 'teleological centres of life'.[150] This conception remains within a Kantian framework and distinction between reason and emotion. It calls upon us to respect nature for its own sake instead of as a means to our human ends. What is left out of such a conception are concepts of 'concern, compassion, gratitude, friendship, and responsibility'.[151] Instead, Plumwood argues that 'concern for nature should not be viewed as the completion of a process of (masculine) universalization, moral abstraction, and disconnection, discarding the self, emotions and special ties'.[152] Plumwood considers the rationalist ethics that relies on cognitive reason in making moral judgment to be masculine. Environmental ethics can thus learn from feminist ethics in including the 'female' characteristics of human life into moral consideration regarding the environment.

These 'female' characteristics are exemplified in the relation of indigenous peoples with their lands. Plumwood recalls the reason that those peoples did not want to surrender their land was because they had emotional ties to it. Their ancestors were buried there, they attribute spiritual meaning to their surroundings. This not only shows that emotion is relevant in considering our environment, but also the exclusiveness of the traditional rationalist ethics: they cannot be applied to the views of other cultures and they are androcentric. In sum, an environmental ethics that includes these 'feminine' characteristic is better suited to considering our environment than an ethics that relies on 'masculine' abstractions and reasons. So, when Plumwood discussed the reconceptualization of the human, she refers to a rejection of this masculine, rationalist model. This is because it figures the 'ideal' human in terms of masculine characteristics, but also as being distinct from nature.

Plumwood relates the Human/Nature dualism to the dualisms of mind/body, reason/emotion and masculine/feminine. The dualism of Human/Nature – as well as the other dualisms – not only establish a difference, but they also imply a superiority of one side. This superiority justifies an instrumental view of the inferior realm. In the case of the dualism of Human/Nature, this happens in several steps: first, human beings distinguish themselves form the natural. Second, human beings find themselves superior to the natural realm. Third, the natural is not considered to have their own 'end' or teleology. For Plumwood, this results in the instrumental relationship we hold with nature.

In sum, the reconceptualization of the human is necessary because the rationalist, masculine model of the human sustains the dichotomy between humans and nature, and in turn justifies the instrumental relationship we hold with it. The second task at hand was the reconceptualization of the self. There are two concepts she employs here: continuity and distinguishability. The idea is that the dualism produces discontinuity between humans and nature. Distinguishability is simply the recognition that things are different. Plumwood discusses the 'indistinguishability account' of deep ecology, that aims at unifying the human with their environment by arguing that they are all part of the same web. We have seen this

[150] Plumwood, 1991, 4
[151] Ibid., 9
[152] Ibid., 7

argument in Jason Moore's idea of 'the web of life', but also – in a sense – in Donna Haraway's story about the Children of Compost. Plumwood argues against this indistinguishability approach because she argues that for us to understand and sympathize with others, we need to be able to distinguish the self from others. As Plumwood puts it: 'Care and understanding require the sort of distance that is needed in order not to see the other as a projection of self, or self as a continuation of the other'.[153] In other words, we need to be able to distinguish ourselves from 'the other' (whether that is the human other, or the natural other) in order to 'relate' to them in a way that makes us continuous with our environment. Because, as explained above, discontinuity eventually leads to instrumentalism. Being continuous with our environment requires us to recognize the essential relationships we form with the things around us, which in turn form the self.

In sum, Plumwood encourages us to reconceptualize the essence of what it means to be human and the self. We need to reject the view of the human that sets it off against the 'feminine' or the natural. We need to develop a view of the self that allows for a distinction between ourselves and others, but that recognizes the essential relationships with these others that form us.

4.8 Discussion

The aim of this thesis was to locate and make explicit the philosophical premises leading to the climate problem and in turn explore how we can move past these ideas by looking into alternative conceptions of nature. In the first chapter, I discussed the historical developments of dominion over nature, disenchantment of nature and anthropocentrism. These three developments contributed to a relationship between humans and nature in which the former exploit and destroy the latter. In the second chapter, we have seen the contemporary context of the conception of nature, and that it is closely tied to the neoliberal capitalist logic. Throughout these chapters, it has become clear that the fundamental philosophical premise underlying the climate crisis is the mental (perceived) divide between humans and nature. This theoretical mental divide has realised this divide into society. Then, the philosophical task at hand is to bridge this divide, to reconnect ourselves – as human 'critters'- with nature. It follows that environmental ethics – which I take to be about how we ought to relate to nature – should be based on breaking down the distinction between humans and nature. How do we come to see nature instead of as something 'over there' to something 'over here'? I would argue that the authors discussed in this chapter all attempt to answer this question but all with a different focus.

The world ecology perspective from Jason Moore proposes to break the dichotomy by picturing the world as a 'web of life'. In this web of life, humans are embedded in and connected to nature rather than separate entities. This approach to bridging the gap between humans and nature focuses is linked to a critique of capitalism. Capitalism, in this context is understood simply as the historical relationship between humans and the rest of nature.

This web of life sounds similar to Latour's theory because of Latour's actor-network theory. Actor-network theorists have emphasized that nature and humans are connected in a network, and that nature has its own agency. However, Latour's approach is much more focused on the

[153] Plumwood, 1991, 14

role of scientific knowledge and its translation to politics. Latour is more concerned with the effects of 'purification' (separating society from nature) on the understanding of certain phenomena. If we separate nature from society, it becomes difficult to address issues that are in the space 'between', as Latour describes it: the whole constitution is not written. In my interpretation, getting rid of the distinction between society and nature, for Latour, is a way of better dealing with such issues.

Timothy Morton is similar to Latour. They have both argued against the presentation of nature as something 'Edenic'[154] over there.[155] But rather than focusing on the relation between scientific knowledge and politics, Morton focuses on aesthetic experience. This is a useful supplementation because he proposes a way that makes it easier for humans to experience that they are 'embedded' in nature through aesthetic experience. What we need for this experience, is to show the reality of nature, particularly the darker side of nature.

In my opinion, Donna Haraway's story about the 'Children of Compost' carries out the task of bridging the gap between humans and nature in a different way. This approach does not necessarily depict the 'leakiness' of nature that Morton proposed. In my interpretation, it is instead focused on a (re)connection with 'the other'. This refers to the human other, but also to the non-human other and the non-living other. Humans are no longer a separate category in her story, but they are 'critters' just as well as other animals are.

Val Plumwood illustrates how the environmentalism and feminism are linked. She focuses on the rationalist and masculine conceptions of the essence of the human and the self and how they prefigure the dualisms of human/nature, masculine/female and reason/emotion. Her proposal for bridging the gap between humans and nature is to reject a vision of the human that sets itself off against nature and to conceptualize the self as both distinct as continuous in its relationship with others.

These different contributions all aim at reconnecting the human to nature. They do it in different ways and from different starting points. Moore writes his world-ecology perspective as a critique of capitalism. Latour is concerned with scientific knowledge and its connection to policy. Morton is concerned with the romanticized image of nature and sees an important role for sustainable development in art. Donna Haraway and posthumanist theory approach the issue emphasizing the relationship with the other and living in 'response-ability'. Val Plumwood encourages us to be critical of our conceptions of the self and what it means to be human in relation to nature. Although these descriptions run the risk of oversimplifying their theories, I use them to illustrate why I have chosen to discuss these authors. To me, they each represent important aspects of the philosophical (and ethical) task of reconnecting the human with nature.

These different aspects are important to consider when we are looking at a different way of living with and in nature for the future. Jason Moore's critique of capitalism relates back to the discussion of neoliberalism in the third chapter. The neoliberal logic of economic progress and the free market are determining the way we relate to nature in the present. Therefore, addressing the political-economic context of the climate issue is an important first step to improvement. Latour's approach and the posthumanist approach both point out the separation of society and nature in the sciences and that we need to bridge this gap in order to understand our modern

[154] Holmes, 2012, 57
[155] This argument is more developed in Latour's book *Politics of nature* (2004)

condition. Finally, bringing 'the other' back in is not only relevant for sustainable development, but also for many other activist movements like feminist, animal rights and the Black Lives Matter movements. This shows that the relationship with nature is not only important for the issue of climate change, it also connects to the way we understand ourselves and how we treat other human beings and non-human animals. We should aim for a relationship with the other that respects its particularity, while also recognizing that we form relationships with the others that are essential to our 'Self'.

The scope of this thesis is limited, the literature about the concept of nature is vast and it is impossible to collect them all in a thesis. I was forced to make a selection, that I made based on recommendations by my supervisor, peers, and encyclopaedic works. This selection has not included non-western contributions. This first because of my own limited background in non-western philosophy. Second, because I interpret the roots of the climate crisis to lie in the West, which is why I chose to study Western philosophy. In the second chapter I have only focused on western philosophers, but I am aware that there are many ideas from different areas of the world that are different from the ones outlined here. For example, we know that Native Americans had a completely different way of relating to nature; they considered land as a common resource rather than private property before colonisation.[156] Moreover, there are no doubt many inspiring contributions from non-western thinkers that offer us alternative ways of relating to nature; this would be an interesting topic for further inquiry.

[156] Isakson & Sproles, 2008, 65

Conclusion

The aim of this thesis was to investigate the philosophical premises underlying the climate problem and how we may change these in order to facilitate sustainable development. To examine this hypothesis, I traced a historical development in the concept of nature. One that – shortly put – went from a dynamic 'enchanted' concept to a disenchanted machine. I have also explored contemporary conceptions and discussions of nature, in the context of neoliberalism and environmentalism. In these first chapters, I argued that the contemporary relationship between humans and nature is harmful. However, throughout history this relationship has been subject to change, which makes it worthwhile to investigate alternative conceptions of nature. These alternatives were considered in the final chapter, where I showed that the different contributions by Latour, Moore, Morton, Braidotti, Haraway, and Plumwood all propose ways to bridge the gap between humans and nature in different ways.

The most fundamental philosophical idea that underlies the way we relate to nature is the divide between humans and nature. The problem with this distinction is that humans see themselves as being separate from nature, which makes it easier to justify exploitation. In my conviction, once we are aware that we are actually a part of nature, we will relate to it differently and in a more sustainable way. Therefore, I argue that environmental ethics should be based on breaking down this distinction between humans and nature. The approaches to bridging the gap discussed in this thesis all do this in slightly different ways and from different standpoints. Interdisciplinary research about climate change and speculative fabulations like the one from Donna Haraway, or aesthetic works that place us *in* nature rather than outside of it, may help with this. Additionally, I have argued that this change is dependent on the political-economic system and its values. In my view, the neoliberal and capitalist logic sustain the distinction between humans and nature and therefore will not be able to foster profound change in the relationship with nature.

The relationship between humans and nature can be described as a painful one, but that does not mean it must remain that way. The first step is to stop seeing ourselves as separate from – or even above – nature and recognizing that we are as much part of it as all the other 'critters' that roam the earth.

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