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# COPING WITH THE NEW ECOLOGICAL REGIME

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## INTRODUCTION

All around me I am confronted with the world's current ecological crisis. Topics regarding sustainability and how people, companies, and governments all over the world (mis)treat the environment receive news coverage on a daily basis. We are continuously confronted with topics such as the extinction of animal species, bleaching of coral reefs, deforestation, environmental pollution, global warming, the ocean's plastic soup and the depletion of the world's resources. All of these world-destroying activities seem to be caused by humans, either directly or indirectly, like global warming for example which is caused by carbon emissions. An increasing amount of debates is held about how to deal with global warming locally in connection with political issues. Whenever a political debate is being held about something that has an ecological impact, such as debates about the future of coal transshipment in Rotterdam or the expansion of an airport, the ecological impact of such decisions is one of the central arguments in the debate. One thing is clear: regardless of one's standpoint, the debate surrounding the current ecological crisis is all-encompassing and all around us. However, it still remains a quest to position oneself in this complicated debate, precisely because it touches upon all-encompassing ecological issues, topics on which vast amounts of research are conducted around the world on a daily basis. The results of these researches often reveal that a massive change in behavioral, productional, and consumption patterns is needed in order to mitigate looming ecological disasters. Translating such complex issues into the daily lives of people (or of any other organism for that matter) or into the arguments surrounding regional politics therefore remains a difficult journey into the unknown.

That is why in this thesis I shall address these ecological issues by comparing Bruno Latour, Felix Guattari and Donna Haraway in order to answer my main research question: How to deal with the New Ecological Regime? I use the term 'New Ecological Regime' throughout this thesis as the demarcation of the current era of permanent ecological crises. The aim of my research question is to find an answer that could help positioning oneself in the ecological debate, and consequently in the New Ecological Regime. In order to be able to answer this question, it is first necessary to determine how it is possible that the New Ecological Regime is installed in the first place. In the first chapter, after first having mapped the scope of the New Ecological Regime, I shall investigate if and how it is possible that people remain unalarmed, despite the alarming danger heading towards them. In the second chapter, I shall discuss how it is possible that humanity seemingly fails to act ecologically responsibly. I shall answer these questions mainly by using Latour's work *Face to Face with Gaia: Eight Lectures on the New Climatic Regime*. In this book, Latour extensively explains his contemporary version of ecology based on James Lovelock's notion of Gaia. Especially Latour is concerned with several scientific and philosophical misconceptions, which occur when thinking about ecology, for example, by assuming rigid divisions between Nature/Culture or Man/Nature. Latour shows that this division is untenable and instead takes over Lovelock's controversial Gaia hypothesis. Humankind is part of Gaia as much as nature is, meaning that the two are inseparable. Using scientific examples to prove his point, Latour also does away with the inclination towards understanding the world in terms of bounded categories dividing passive from active agents and organism from environment. The main reason for

this is that, as some scientific researches show, seemingly insignificant processes can have a major impact and suddenly become all-determining actors. As Pasteur showed this with micro-organisms that are responsible for rotting processes, Latour argues with Lovelock that the same holds for organisms that make the world habitable. Latour uses this argument in order to show the enormous impact humankind has in changing its surroundings, and that in fact every actor changes its surroundings instead of merely adapting to them. For Latour, this is enough reason to name the era we live in 'the Anthropocene', since humankind has already left its determining footprint behind in the earth's layers.

In these chapters, I shall argue that there is a widespread insensitivity towards the New Ecological Regime due to a lack of feedback loops that could make different kinds of actors aware of the ecological impact of their actions, and due to a refusal to acknowledge the existence of the New Ecological Regime. These two points combined undermine any attempt to act ecologically responsibly. In addition, there is no point in attributing the property of ecological responsibility to humankind's actions, since human beings are divided in different ecological networks, each with their own composition of ecological agents.

After having explored several possible answers Latour gives to the question why humanity is deliberately destroying the earth, it is time to dive deeper into ecological philosophy in order to get a better sense of what ecology exactly is. For this purpose I shall mainly use Guattari's work *The Three Ecologies*. In this book, Guattari describes three ecologies, which cannot be seen separately from each other: the mental, social and natural ecology. His work provides us with a conceptual and ontological basis for an adequate explanation of what ecology is. Guattari's philosophy attempts to distinguish good from bad ecologies which can thus be found in the environment, but also in the social and mental lifeworld. While explaining the three ecologies, Guattari interweaves his critique on Capitalism by presenting this economic system as the main threat to each of these ecologies. Here Guattari radically differs from Latour and Haraway who openly eschew such Marxist traits, a difference which deserves looking into in this thesis. My analysis of Guattari's ecological philosophy will simultaneously serve as a conceptual framework in which the ecological philosophies of Haraway and Latour become better understandable in the fifth chapter.

This conceptual framework also allows me to better compare the differences between the positions of Latour, Guattari and Haraway. In the fourth chapter, I take a further step in finding out how to cope with the New Ecological Regime by investigating different 'coping mechanisms,' different positions that might be taken in regarding the New Ecological Regime. I shall critically analyze different ways on how to cope with this ecologically dangerous situation by comparing and criticizing the different viewpoints from each of the aforementioned philosophers, which correspond to different prevailing standpoints in the ecological debate. Here I will argue that the most adequate position in coping with the New Ecological Regime is, in the words of Donna Haraway, to stay with the trouble. The position of staying with the trouble stands in opposition to the more popular stances such as techno-optimism or a more militant, apocalyptic position. The rationale behind a techno-optimistic position is that since humankind has come so far in destroying the earth with the machines and

technologies it has created, it should also be possible to solve those same problems with the invention of new technologies. However, solutions that result from techno-optimism like geo-engineering are reactionary and would perhaps only treat the symptoms rather than solve deep systemic problems. Instead, I shall argue that the best position for acting ecologically responsibly in the New Ecological Regime is to be found in Haraway's plea for resurgence and ongoingness.

Finally, in the fifth chapter I shall go further into depth on Haraway's philosophy, which she propounds in her book *Staying with the Trouble: Making Kin in the Chthulucene*, and find out what a focus on resurgence and ongoingness exactly entails. Here, I shall make use of Haraway's ideas in order to find possible solutions that can help ecological actors to cope with the New Ecological Regime. I will explain Haraway's philosophy by making use of the conceptual framework of ecology, which I have set up in the third chapter in discussing Guattari. This will result in the explanation of Haraway with the Guattarian concepts of subjectivity, singularity and transversality, as a result of which these concepts will attain more clarity and a different meaning.

As a viable solution, Haraway explores all kinds of multiple possible collaborative connections and stories between different kinds of living beings or what she calls 'string figures,' which arise when staying with the trouble rather than trying to fight or solve it. In the process of forming string figures, old meanings are rediscovered and new connections offer creative alternatives for ecological troubles. Haraway shows for example how pigeons, which are often perceived as a nuisance in the form of flying rats, can be part of all kinds of useful relations:

"Pigeons have the map sense and compass sense that have endeared them to pigeon fanciers who race them for sport, scientists who study them for the behavioral neurobiology of orientation and navigation, spies who wish to send messages across enemy territory, and writers of mystery novels who call on a pigeon to carry secrets."<sup>1</sup>

These are just a few of a list of numerous examples Haraway gives of uses that string figuring is able to offer. When ecological actors make better use of their surroundings and the relations they already have in a creative way, they can learn to positively change the environment and discover new string figures. This way of making better use of the ecological actors in the direct environment enables staying with the trouble through ongoingness, resurgence, and eventually even flourishing.

At the end of this thesis I aim to have given a clear outline of the main aspects of the New Ecological Regime and the challenges it poses. The New Ecological Regime is the entrance of an era of ecological destruction, unexpected evolutive mutations, and new possibilities. The installation of this regime forces ecological actors to become response-able to the ecological consequences of their actions and the reactions of other ecological actors. Becoming response-able simply entails being able to respond; being able to understand other actors in the same ecology and connecting with them in a

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<sup>1</sup> Donna J. Haraway, *Staying with the Trouble. Making Kin in the Chthulucene* (Durham: Duke University Press, 2016), 18.

reciprocal relationship. I shall have given an overview of different ways on how to respond to the overwhelming scale and implications of the New Ecological Regime, and argue for what I view as true response-ability. In my view, true response-ability does not consist of a militant attitude of religiously devoted ecological warriors versus the rest of the world, nor does it entail putting all hope into technological fixes for all the ecological problems. The New Ecological Regime instead asks for an engagement of ecological actors in meaningful relationships that can contribute to a resurgence, an ongoingness and a flourishing of ecologies. This can only happen by creating stories in a collaborative effort of the imagination; going beyond facts to the urgency of the troubles the New Ecological Regime confronts us with on a daily basis. Together, all earthlings must maintain relationships that eventually might guarantee the habitability of the earth.

## WARNING FOR THE READER

This thesis is written and rooted in Rotterdam, the Netherlands. I mention this because the city of Rotterdam will play a special role in this thesis for several reasons. First of all, from a methodological point of view I feel obliged to mention my situatedness, since I do not pertain to be objective and uninvolved.<sup>2</sup> I write on a specific location, in a specific city with its own specific history, characteristics and struggles. Since I write about ecology throughout my thesis, I have chosen to include my own part in the ecology of Rotterdam, which I actively influence through my activities in the University Council of the Erasmus University.

Second, the city of Rotterdam and the Erasmus University have their own dynamics, which are impossible to describe fully accurately in English. Rotterdam has its own cultural richness, which is expressed through its own specific characteristics and its own expressions, which can only be grasped through a full immersion in the city. Their dynamics involve a driven global business mentality, a high cultural diversity and a certain directness in the manner of speech all combined with a gigantic harbor covering the horizon, which are all densely summarized in the Dutch expression with which people from Rotterdam identify themselves: *'Handen uit de mouwen'* and *'Niet lullen maar poetsen.'* The city of Rotterdam differs from many other Dutch cities due to the bombardments of the historical center during the Second World War, which due to the rebuilding of the city connected the people of Rotterdam with this expression. At the same time, there is conflict and division: there are poor neighborhoods despite a booming economy; Rotterdam has the biggest port of Europe but also gentrification and a rise in tourism while constantly remaining in search for its own identity, which is reflected in the division in the constituency.<sup>3</sup>

Finally, I am especially interested in the conflict regarding sustainability, which is especially exciting and visible in Rotterdam for various reasons. It is not difficult to imagine conflicts arising in the setting I have just described. The biggest port of Europe struggling to maintain its position versus an increasing amount of sustainability initiatives that aim to influence policies and politics. The biggest contributor to CO<sub>2</sub> emissions of cities in the Netherlands, and consequently the biggest contributor to the rise of sea levels, whilst being situated below sea level and fighting against floods by building world-famous constructions such as the Maeslantkering.

For those reasons I shall use Rotterdam as a main example throughout my thesis in order to depict the theoretical analysis of the problems I encounter in the works of Latour, Guattari and Haraway, as well as in my own life. Even though this is a philosophical exercise, its subject is about the world we all live in. I am interested in this subject also outside the scope of philosophy. It is in philosophy that I hope to find more profound answers than I am able to find in the debates I encounter

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<sup>2</sup> Together with Latour (and Haraway and Guattari for that matter), as shall become clear further on in this chapter under 'detachedness of science.'

<sup>3</sup> Port of Rotterdam Authority, *Facts & Figures. A Wealth of Information*. <https://www.portofrotterdam.com/en/the-port/port-facts-and-figures/other-ports>.

in Rotterdam; an industrial harbor-city responsible for almost 20% of the Dutch CO<sub>2</sub> emission that deals with our ecological crisis by offering vague promises of burying its problems in the ground.<sup>4</sup>

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<sup>4</sup> Dion Mebius, "Haven Rotterdam wil CO<sub>2</sub>-uitstoot opbergen in lege olie- en gasvelden onder Noordzee," *de Volkskrant*, October 30, 2017, <https://www.volkskrant.nl/binnenland/haven-rotterdam-wil-co2-uitstoot-opbergen-in-lege-olie-en-gasvelden-onder-noordzee~a4525748/>.

## CHAPTER 1: ALARM IN THE DISTANCE

In a recent interview the mayor of Rotterdam, Ahmed Aboutaleb, calls out the city to hurry up with the installation of solar panels.<sup>5</sup> The installation of solar panels on rooftops throughout the entire city is a key element in realizing a successful energy transition towards sustainable energy. Aboutaleb links the ecological discussion to creation of jobs and the labor market, and explicitly mentions that the discussion should not be about any beliefs about the consequences of our actions to the environment. This interview is a perfect example of terms used in the ecological debate: it is supposed to be about something that is productive and beneficial for the market, and explicitly not about any looming disaster on the horizon. It shows that even though it seems as if governors and citizens are undertaking action (for instance the mayor calling for the installation of solar panels in the entire city), they are actively trying to remain unalarmed by the ecological disaster taking place in the background.

In this chapter I shall explain why people are not alarmed by the ecological crisis they are in. In my analysis of the underlying reasons for our not being alarmed, I shall mainly discuss arguments of Bruno Latour's *Facing Gaia: Eight Lectures on the New Climatic Regime*. First, I shall give an outline of the scope of the ecological crisis substantiated with various scientific research data. After having done so, I will explore different reasons that can account for the fact that people remain unalarmed, in spite of the terrifying ecological crisis we are in. Climate sceptics play a large role in epistemologically undermining the truth-value of scientific facts while simultaneously pursuing a successful lobby against political sustainability measures, which could undermine unsustainable industries. According to Latour the way science is perceived and perceives itself as a detached, objective and independent praxis is problematic. Another main reason Latour offers us, which could explain why people remain unalarmed, is the lack of feedback loops which could provide people with reflective information about the consequences of their actions. Next to these reasons, Latour points out a more fundamental problem that underlies these different viewpoints of different groups in this dilemma. As we shall see, this fundamental problem has a religious background since it pertains to the different relations these groups have with the end of time or the apocalypse. In concluding this chapter I shall tie these arguments together through Latour's evocation of a mythological creature: Gaia.

### NEW ECOLOGICAL REGIME

Human beings and other organisms, critters of the earth, live in dangerous times. For the first time in history, humankind has entered a time in which its symbiosis with the climate is in danger. Sea levels are rising. In September 2016 the amount of CO<sub>2</sub> parts per million has exceeded the threshold of 400 ppm that ensures a safe climate and will stay beyond that level for the foreseeable future.<sup>6</sup> It has been proven that human activities are the main cause of this because of CO<sub>2</sub> emissions that occurs with

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<sup>5</sup> Leon van Heel, "Aboutaleb: 'Haast met die zonnepanelen, want het gaat om banen.'" *AD*, July 7, 2018, <https://www.ad.nl/rotterdam/aboutaleb-haast-met-die-zonnepanelen-want-het-gaat-om-banen~a8826ff2/>

<sup>6</sup> Brian Kahn, "The World Passes 400 PPM Threshold. Permanently." *Climate Central*, September 27, 2016, <http://www.climatecentral.org/news/world-passes-400-ppm-threshold-permanently-20738>

the widespread use of fossil fuels.<sup>7</sup> In the words of the Intergovernmental Panel on Climate Change (IPCC): "Human influence on the climate system is clear, and recent anthropogenic emissions of greenhouse gases are the highest in history. Recent climate changes have had widespread impacts on human and natural systems."<sup>8</sup> The transgression of the CO<sub>2</sub> 400 ppm mark is causing more extreme weather circumstances, which consequences are becoming increasingly tangible. There are more periods of extreme high and extreme low temperatures, more droughts, more floods and more storms. Air pollution in large cities and metropolises is damaging the health of their inhabitants. In some cities, circumstances are detrimental, causing people to have trouble breathing. Even though the world's resources are depleting already, the world population keeps on growing, reaching an estimated amount of 11 billion people in 2100.<sup>9</sup> There are simply too many people on this planet that are exploiting too many of its resources. The worst thing is that even though the awareness on this dangerous topic is rising quickly for decades already, citizens all around the world continue to increase their damaging activities. If deforestation continues at its current rate, all rainforests will be gone in the coming century.<sup>10</sup> Biodiversity is getting less every moment because of the agricultural monoculture, which requires more and more land. Even though this list of frightening facts is not exhaustive, it should definitively be sufficient to make people from all over the world alarmed.

## UNALARMED

Despite this disastrous situation, it seems that in general the alarm bells are malfunctioning. The most pertinent example underlying this statement can be found in the loud voice of climate sceptics in the debate about global warming. Climate sceptics use whatever means they have at their disposal in order to deny events such as global warming. A refusal of the acknowledgement of global warming even precedes the acknowledgement that human interference in nature is the actual cause of global warming. Climate sceptics thereby deny the existence of scientific facts, downplaying them to questionable interests of the institutions responsible for finding and producing those facts. Even Donald Trump, being one of the most influential persons in the world as president of the U.S.A., has denied global warming on several occasions as well as human causation of global warming. Lobbyists for climate skepticism have even succeeded in changing the subject of the debate from global warming to the more neutral term climate change.<sup>11</sup> However, the facts and the science are undeniable, even though they are unrightfully being blasphemed by climate sceptics, who are often funded by companies with financial interests in continuing their ecologically irresponsible activities.<sup>12</sup>

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<sup>7</sup> Naomi Oreskes, "The Scientific Consensus on Climate Change," *Science* 306, no. 3 (December 2004): 1686. (Oreskes 2004)

<sup>8</sup> IPCC, *Climate Change 2014 Synthesis Report Summary for Policymakers*, 2 [http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5\\_SYR\\_FINAL\\_SPM.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf)

<sup>9</sup> United Nations, Department of Economic and Social Affairs, Population Division (2017). *World Population Prospects: The 2017 Revision*, DVD Edition.

<sup>10</sup> See <https://www.nationalgeographic.com/environment/global-warming/deforestation/>

<sup>11</sup> Frank Luntz, *Words That Work* (New York: Hachette, 2007).

<sup>12</sup> See James Hoggan, *Climate cover-up. The crusade to deny global warming*. (Vancouver: Greystone, 2009).

The meddling of influential climate sceptics in the debates on global warming seems to be a significant contributor for people not to be alarmed. However, the problem seems to lie deeper than climate sceptics who attempt to bring the debate on climate change in disarray. Still, with 97% consensus in the scientific community on the fact that human-caused global greenhouse gas emissions instigate global warming there must be other reasons for the silence of the alarm bells.<sup>13</sup> This goes back to the point I mentioned earlier, namely the scope of the ecological crisis. This scope is so large that geologists are seriously considering to name the current era the Anthropocene, since human presence on earth is already irreversibly carved into the layers of the earth.

The debate on climate change often misses the main point, since it is mostly not about the entire ecological crisis. It is also not about the responsibility people all around the world bear for all the different aspects of this ecological crisis through all the different network chains that cause them to be involved in this crisis all the way into seemingly innocent aspects of their everyone's daily lives such as booking a flight, buying products with large ecological footprints, the composition of their diets, and so forth. Debates often reduce the ecological crisis to global warming, global warming to global greenhouse gas emissions, which is then again reduced to a local problem such as an agreement on coal transshipment in Rotterdam. Even the Paris Climate Agreement mainly focuses on battling the 2 degrees Celsius warming of the earth. This is the reason why Latour speaks about the 'New Climatic Regime.' How about the fact that humankind is continuously causing extinctions of animal species by pollution, deforestation, and overfishing? How about the bleaching of coral reefs? How about the fact the world's resources are being depleted? How about the giant plastic soup in the oceans? It makes me wonder why everyone around the world does not become vegan immediately and quit making babies for the sake of the earth and all its critters. Why does humankind fail to take on responsibility for this permanent ecological crisis for which it has only itself to blame?

## FEEDBACK LOOPS

An important reason Latour offers, which could explain why people remain unalarmed, is that in general, people are unaware of the scope of the ecological state of the earth and of the disastrous ecological consequences of seemingly innocent actions. If that is the case, then that seems like a legitimate answer. Many people, especially in the West, are unaware of the fact that they are destroying the world since the ecological problems they cause are being outsourced all the way to the end of production processes, hidden far away from the ordinary consumer's lifeworld. The average Western consumer usually does not encounter the ocean's plastic soup, nor does s/he experience the disappearance of rainforests and the subsequent shrinkage of biodiversity; Western consumers simply do not encounter such phenomena in their society, due to globalization and the concomitant outsourcing of production processes and waste streams. They are still able to buy their food in the supermarket, get rid of their trash and continue their lives as if there are no ecological disasters looming

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<sup>13</sup> J. Cook, et al, "[Consensus on consensus: a synthesis of consensus estimates on human-caused global warming](https://doi.org/10.1088/1748-9326/11/4/048002)," *Environmental Research Letters* Vol. 11 No. 4, (13 April 2016); DOI:10.1088/1748-9326/11/4/048002

on the horizon. As long as they are able to continue with their lifestyle undisturbedly, they lack any direct reason to believe that this lifestyle is in fact the main contributor to the ecological crisis. In other words, they do not get direct feedback on the consequences of their actions in their daily lives.

Workers and other poor citizens who live in poor or underdeveloped regions (internationally, nationally, regionally), who work in bad circumstances and who are unable to afford to live in clean, unpolluted neighborhoods, often do not have much choice but to sustain this economic system since their family income is strongly dependent on their low wages. They are simply too preoccupied with making a living, and do not have enough educational resources and capital to be concerned with the long-term ecological state of the earth they live in. Besides, even if they would have received the proper education and information to be able to be concerned with the ecological state of the earth, it still hardly seems to be their responsibility to take care of it, nor would it be a high priority of someone living in tough conditions. Nonetheless, there is a common denominator here between the rich consumer and the poor worker: a lack of feedback loops that are able to compose an ecological worldview.

Latour's ecological critique is based on the methodology of feedback loops. A feedback loop is a self-reflexive loop. Every individual has these kinds of self-relations in innumerable amounts. For example, when I get comments on the piece I am writing, I will use that feedback to change an argument or my grammar. A feedback loop is thus the recurring information one receives on certain expressed thoughts and executed actions. The problem Latour points out in the current ecological crisis, or what he calls the New Climatic Regime, is that the global perspective is detached from every feedback loop. If these global challenges keep on being addressed from such a sterile, distant, global point of view, one gets the impression of being completely independent of any investigated subject. This problem is reflected in the current debates on the ecological crisis. The topic of global warming is too global to have an impact on the level of individuals because their feedback loops remain unaffected by it. When politicians make a global agreement on the maximum rise of global temperatures of two degrees compared with the pre-industrial era, it fails to affect citizens in their daily lives. This is not to say that the Paris Agreement is a complete failure. On the contrary, it is a great worldwide accomplishment that shows that world leaders – except the most powerful one – are in fact affected by this problem. However, it does not affect the experiences ordinary citizens' everyday lives to the extent that they realize that nearly every product they buy is detrimental to the environment.

## **GLOBE-ALIZATION**

This is exactly the point where ecology intervenes and addresses a major point of critique. Latour characterizes ecology as follows: 'Ecology clearly is not the irruption of nature into the public space but the *end of "nature"* as a concept that would allow us to sum up our relations to the world and pacify them.'<sup>14</sup> Ecology shows that the world consists of feedback loops and relations of act, which eliminates rigid categories such as Nature/Culture. In contrast with Guattari and Haraway, Latour does

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<sup>14</sup> Bruno Latour, *Facing Gaia. Eight Lectures on the New Climatic Regime*. (Cambridge: Polity, 2017), 36.

not systematically explain what he understands by ecology, other than his elaboration of the Gaia theory which I address further on in this chapter. However, before I go into the ontology of ecology in the third chapter by discussing Guattari's 'The Three Ecologies,' I now merely want to address one of Latour's main points regarding scientific praxes. According to Latour, one of the biggest problems with the scientific relation to the earth is the global, objective, and detached point of view.<sup>15</sup> Scientists tend to zoom out, away from their laboratories and take a global perspective on their research subjects. They view the earth not as a habitat where critters reside in complicated relations with each other and their environment, but as a globe, as if it were possible to investigate the planet without having any relation with it. The results of their endeavors set the terms for the public debate. In this way, the majority of people in society tend to take a global perspective, which actually is not a real perspective at all. In Latour's words:

*The notions of globe and global thinking include the immense danger of unifying too quickly what first needs to be composed. This is above all a material problem: we have to draw a circle before we can generate a sphere. It is also an empirical problem: only because Magellan's boat came back were his contemporaries able to fix in their minds the image of a spherical earth with which they were already familiar. But it is also a moral problem: it is only when you feel the repercussions of your own action that you understand to what extent you are responsible for it. As Sloterdijk has noted, it is only when humans see pollution falling back on them that they begin really to feel that the Earth is in fact round.<sup>16</sup>*

In the quote above it becomes clear that, according to Latour and Sloterdijk, humans do not feel the repercussions of their actions, nor do they understand the extent of their responsibility. They do not feel the temperature slowly rising in a tempo of decades. They do not even feel the terrible fear they probably should be feeling for the crisis that has already been set into motion, simply because they do not see the pollution they cause falling back on them. Nor do they feel that the earth is a reflexive network, since the predominant scientific, detached, global perspective prevents them to create spheres out of feedback loops in which they can live.

## **APOCALYPSE / NEW CLIMATIC REGIME**

Latour argues that the current ecological crisis has already developed so far that it is not even a crisis any more. A crisis refers to a temporary situation, to 'times of crisis' that will improve soon. However, the current situation is not much of a crisis anymore; instead, it is the new permanent reality.<sup>17</sup> This, and including the untenability of the old division between Nature and Culture, is what Latour refers to with the term 'The New Climatic Regime.' The fact that there is a new regime and not a crisis has great implications. First of all, it implies being at a point of no return. It is not a question anymore if humanity

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<sup>15</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, vert. Rokus Hofstede en Katrien Vandenberghe (Octavo publicaties, 2017), 201.

<sup>16</sup> Bruno Latour, *Facing Gaia. Eight Lectures on the New Climatic Regime*. 138-139. Reference in quote: Peter Sloterdijk, *Im Weltinnenraum des Kapitals. Für eine philosophische Theorie der Globalisierung*. (Suhrkamp: Berlin, 2005).

<sup>17</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 29.

can reduce the amount of CO<sub>2</sub> in the atmosphere; rather, it is a question of how to limit the increase of the global temperature as far as possible – or even worse: how to survive in this New Ecological Regime. Animal and insect species that have evolved for millions of years and are now extinct, will not return.<sup>18</sup> In addition, this is a matter of how to reduce these extinctions as much as possible. The same holds for the rising sea levels, melting ice caps as well as for all the other ecological dangers I have mentioned earlier. It is far too late to be alarmed, since the ecological crisis is no longer even a crisis anymore.

Before we go further into depth on how it is possible that humanity remains unalarmed while destroying the earth, it is important to take into consideration how life on earth is even possible in the first place. The fact that human beings are able to live on this planet is almost unbelievable, since it is dependent on an innumerable amount of necessary preconditions for the creation of the right circumstances to live in. Just think about the billions of years in which a giant fireball has evolved into what it is now: planet earth with water, air, land and life. The coincidental appearance of the first forms of life on earth, such as bacteria and other micro-organisms, has played and remains to play a crucial role in the constitution of the elements that can be found on this planet. These two processes combined have created the perfect preconditions for the climate in which flora, fauna, and organisms are now able to live and breathe. Micro-organisms have developed in a crucial way by adapting to the environment, by evolving in such a way that they incorporated oxygen in their metabolism. This allowed them to multiply and evolve much faster while simultaneously creating an entire climate with their chemical reactions.<sup>19</sup> Latour uses this line of reasoning, following Lovelock, to draw the conclusion that also humankind is in fact part of the climate's composition. Just as the micro-organisms evoke chemical reactions that create a climate, human beings as well affect the climate. It is not even necessary to look at the machines, technologies and industries humanity has developed to be convinced by this. Even the chemical composition of human bodies and their chemical reactions alter the environment – and not merely adapt to the environment – just like the various micro-organisms already did three billion years ago.

## GAIA

In the meantime, although human presence is a mere blip on the radar on the scale of the earth's history, human activity has already been so dominant and has caused so much impact on earth that it has imprinted its presence in the layers of the earth. Geologists are considering to use the term 'Anthropocene' in order to demarcate the era in which human presence has adjusted its environment so drastically that its effect is undeniably present in it. Latour applauds this term of the Anthropocene and uses it throughout his book in order to denote the current era of mass human intervention, which reminds people of their reciprocal relation with the earth that consists of feedback loops.<sup>20</sup> This brings

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<sup>18</sup> Except if they would be recreated by genetic engineering – even then they would be reliant upon the resurgence of the original ecosystem on which they depended. I will discuss this techno-optimistic attitude in the fourth chapter.

<sup>19</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 155.

<sup>20</sup> Ibidem, 202.

me back to Latour's point that organisms adjust their environment. The symbiosis of organisms with their environment on earth is what Latour calls 'Gaia'. Latour has taken over the Gaia hypothesis from scientist James Lovelock who has written several books on this subject.

Here it must be pointed out that Lovelock and his Gaia theory have often been ridiculed by many scientists, but Latour uses this tension in order to prove his point on the prevalent schema scientists still maintain separating Nature and Culture.<sup>21</sup> In this schema, scientists reside on the side of Culture, supposedly engaging in objective research on Nature's mysteries. In this respect, it must seem ridiculous that a natural phenomenon would bear a name of a cultural mythological figure. However, Latour points out here that, besides the point undermining the Nature/Culture schema mentioned earlier that human beings who belong to Culture are in fact part of Nature, science is dependent on mythology as well, even though it tries to hide it by using concepts such as 'System'.<sup>22</sup>

By reevoking Gaia as a mythological umbrella concept for life on earth, Latour aims to dissolve the Nature/Culture schema as an old-fashioned, modern, categorical way of perceiving the globe as an object and human beings as subjects. He deliberately uses a controversial theory in order to prove his point while hitting two birds with one stone by unveiling both the mythological side of science and the subjective or 'human' side of 'nature.' Using the Gaia theory allows Latour to make scientists, politicians, and citizens sensitive again for ecological feedback loops. The reason for this is that it is a mythological reminder, which speaks to the imagination, of the ecological interdependence and inseparability of a plethora of subjects, i.e. agents with a capacity to act.

Gaia, then, is the membrane around the earth that has a mere thickness of a few kilometers.<sup>23</sup> However, instead of being an inert object, Gaia is a subject with a capacity to act. Some might think that the climate is something humans have control over, but Gaia is actually an unpredictable, living subject.<sup>24</sup> In fact, human beings are part of Gaia in the sense that they are part of her composition. They are actively part of the chemical composition of this membrane that is altered with every taken breath and every purchased product. The Gaia theory is interesting in the sense that it allows for the establishment of more feedback loops and self-reflexivity. The self expands with the notion of Gaia from an individual in the world towards a network of relations including chemical compositions, which are necessarily a part of Gaia. In this respect, the terms Gaia and Anthropocene are similar. However, the term Anthropocene is solely focused on the predominance of humanity resulting in its presence in the earthly layers, while Gaia includes every member that composes its membrane.

## RELIGION

At first sight, it might seem strange that the notion of Gaia bears not only a mythological connotation, but also a religious one. Gaia is the ancient Greek goddess of nature, mother of all sorts of gods, titans

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<sup>21</sup> Ibidem, 125.

<sup>22</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 127.

<sup>23</sup> Ibidem, 203.

<sup>24</sup> Ibidem, 96.

and cyclops. She is the Earth that arose out of the Chaos in the beginning of times. This connotation is by no means a sheer coincidence. Indeed, it seems odd that Latour evokes a mythological and religious creature as a solution for problems that are caused by modern, industrial developments. However, Latour has good reasons for doing so. He claims that one of these reasons is that people in modernity still have a problematic relation with religion, often without being aware of it. This problematic relation consists of the fact that even though most moderns might think of religion as unscientific, outdated and false, they are still left with certain unanswered fundamental questions that they need to answer. These questions are of a religious nature, which we shall examine in further detail in the next and fourth chapter. The way Latour incorporates the Gaia theory in his work is therefore a combination of the argument of the lack of feedback loops, the narrow comprehension of subjectivity and agency, together with a religious argument; all three seem to be problems of modernity.

When reconsidering the point of the lack of feedback loops due to a global perspective detached from any relation to the earth, Latour argues that there must be something more than a lack of feedback loops. Even though in modern day society most people do not feel the direct consequences of their actions in their daily lives, most of them must in fact be perfectly aware of the damage they are doing to their environment. In the introduction, I mentioned that the ecological debates are all-encompassing and that they are all around us, for example through their daily news coverage. In that light, it would indeed be very strange if people are unaware of the ecologically destructive consequences of their lifestyle. Latour mentions that 'If we were in a normal situation, the smallest warning about the state of the Earth and its feedback loops would have already mobilized us, just as any question, security, or property would surely have done.'<sup>25</sup> Latour compares the reaction people should have to this ecologically disastrous situation with a war situation: where in a war people are immediately mobilized in order to eventually secure peace and especially safety, now people remain frozen. This lack of sensitivity is a choice according to Latour, a choice that he unexpectedly believes to be founded in religious sentiments. In the end, this (lack of) choice depends on the relation people in modernity have towards the end of times or the apocalypse.<sup>26</sup>

Latour claims that the biggest problem Moderns face is that they live after the apocalypse; for them, the apocalypse has already happened. The end of times has been solemnized in the rise and expansion of liberal democracy around the world.<sup>27</sup> This is the main reason why, according to Latour, people all around the world remain insensitive to the New Climatic Regime: the end of history has already happened, the Moderns have already witnessed the apocalypse, and now nothing can still harm them. They are in the prime of modernity with liberal democracy and technological advancement, so there is no sense in talking about an apocalypse anymore. The apocalypse is supposedly a term that belongs to the past, a past in which religious people still did not know better than to believe in an apocalypse.

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<sup>25</sup> Bruno Latour, *Facing Gaia. Eight Lectures on the New Climatic Regime*. 191.

<sup>26</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*. 271.

<sup>27</sup> Argued in Francis Fukuyama, *The End of History and the Last Man*. (The Free Press: New York, 1992).

## CONCLUSION

Thinking back again at the example given at the beginning of this chapter of the mayor of Rotterdam who explicitly refrains from any religious discussion about the New Ecological Regime, it seems like the leader of the city belongs to the group of Moderns. Indeed, Aboutaleb and the city of Rotterdam are aware of certain ecological feedback loops (or they are blindly following the Paris Climate Accord without giving it any thought), but they nonetheless choose to remain insensitive towards the full scope of the New Ecological Regime. The awareness of the feedback loops shows itself in the efforts taken towards a sustainable energy transition, but the insensitivity reveals itself in the refusal to talk about any underlying issues that might be perceived as issues of belief. However, it is precisely at this point where the difference between sensitivity and insensitivity towards the New Ecological Regime reveals itself: is it about jobs or is it about the habitability of the earth? It might be the case that modern people remain unalarmed because of a lack of feedback on the consequences of their actions, but in the first place because they choose to remain insensitive to any religious talk about the apocalypse. Latour therefore argues that everyone must first be prepared to talk about the apocalypse in the present tense if they are to acknowledge the New Climatic Regime and its all-encompassing scope.<sup>28</sup> There is indeed a lack of feedback loops due to a modern, global worldview, but the main underlying issue is located in the sphere of beliefs. It makes no sense to confront these people with the harmful consequences by creating feedback loops, if they have decided to remain insensitive to anything which could point to an apocalypse, or to a New Ecological Regime. Therefore a mythical evocation of a new creature and era is needed, call her Gaia, the New Ecological Regime (I find Climatic too narrow), or the Chthulucene,<sup>29</sup> which can remind Moderns of the fact that a new religion has dawned upon the earth. An oversight of the consequences of their actions would make them alarmed by creating spheres out of feedback loops, but this oversight must be combined with a belief that a new time is indeed coming.

However, Latour's evocation of a religious myth of a present-day apocalypse as a solution for converting modern non-believers into people who are sensitive for the earth's precarious ecological situation is a desperate measure. Admittedly, this measure does touch upon a crucial point in the ecological debate, namely that more than facts are needed in order to create a collective sense of urgency. Citizens, governments, companies, and other actors must be continuously reminded of the detrimental effects of their actions to the environment if they are to change their ecological behavior in a positive way. The benefit of the evocation of the myth of an apocalypse is that it triggers the imagination, it makes people scared and it will set off alarms. However, the downside might be far more dangerous, because it has been proven throughout history that scaring people by telling them religious myths will not encourage them to make wise decisions. On the contrary, different peoples might wage wars with one another for having different beliefs, or because some are convinced that

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<sup>28</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*. 274.

<sup>29</sup> The Chthulucene is a term suggested by Haraway as an alternative for the Anthropocene. See chapter 5.

the others are knowingly destroying the earth. This is in fact a consequence that Latour is aiming for, but I am convinced that it will only make things worse. Instead, we must find creative ways that spark the imagination to behave in an ecological manner that will have positive effects on the environment, on all critters of the earth, on Gaia.

## CHAPTER 2: THE INABILITY TO ACT ECOLOGICALLY RESPONSIBLY COLLECTIVELY

On the 25<sup>th</sup> of January 2018, the Rotterdam Climate Call (*Rotterdamse Klimaatoproep*) was launched. The climate call consists of a coalition of businesses and institutions that signed a document stating that, first of all, they will pursue ecologically friendly endeavors in the future. Second, the Climate Call is a call upon the newly formed municipality, regardless of what the results of the elections will be, to further improve its sustainable goals and ambitions. Through my membership in the University Council of the Erasmus University of Rotterdam, I had convinced the Executive Board of the university in December 2017 to also sign the document as leaders of our academic community.

The launch of the Climate Call consisted of handing the document over to the mayor of Rotterdam and a consecutive debate between all political parties that participated in the local political elections. Since the Climate Call was mainly signed by companies and institutions, the debate was about local politics and its governance of sustainability. The main object of discussion was the coal transportation in the port of Rotterdam. Agreements are currently being made between coal company EMO and the municipality of Rotterdam about the prolongation of their contract with 25 years. The aimed for prolongation is cause for debate about the future of the coal industry in Rotterdam.

The debate was painful to watch. Before the debate, sustainable entrepreneurs could pitch their companies in the hope to gain some new customers and broaden their network. This part nearly seemed like a gathering of cowboys seeking fortune in the new goldmine of sustainability. It became clear that neither the political parties, nor the present energy companies or the haven company were prepared to undertake any concrete action. The dependency on the coal transport, the energy produced from burning coals and the jobs and revenues they create are simply too large for the decision makers who were present at the debate. Even though the organizers and participants made it seem like a success, no real concessions have been made during the debate and no one had really responded to the Climate Call. The whole subject of sustainability was underrated in every possible aspect. People spoke vaguely about possible scenarios in 2050, abstaining from any action right now. That is not surprising since the municipality yearly receives roughly 60 million euros dividend from the port of Rotterdam, an estimated 54% of which comes from its fossil fuel activities.<sup>30</sup> The financial benefits are simply either too attractive, too important, or both. Above all, the main focus of the debate became the coal transportation in the port of Rotterdam. What about all other aspects of sustainability? It seems like no one is really prepared to take on responsibility when it comes to the wellbeing of the planet.

The question I ask in this chapter is the following: Why are we unable to act ecologically responsibly? In order to be able to answer this question, I must unravel which presuppositions are related to acting ecologically responsibly. Therefore, I dive into the different elements of this question. First, I shall elaborate on the subject(s) in question, since it is important to determine exactly who is responsible for what. Here I shall argue, together with Latour, that humanity is divided in different

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<sup>30</sup> Sem Oxenaar, *Mapping the financial and organizational interdependencies between the Dutch state and the fossil fuel industry*, (MSc thesis: Berlin, 2017), p. 33-34.

opposing collectives with opposing interests. Also, it is often wrongly presupposed that human beings are the only relevant ecological actors when it comes to collective responsibility, since human beings are ecologically intertwined with all kinds of actors in a shared environment. Latour has his own specific use of responsibility, which depends on feedback loops and localization, which I shall briefly discuss in order to get a grip on what ecological responsibility exactly means. Then I shall argue that human beings are indeed able to act ecologically responsibly, but there is a dangerous lack of ecologically responsible action, which has led the earth to enter into an irreversible dangerous ecological state. I shall conclude this chapter by analyzing with Latour how the structure of contemporary politics is inadequate in addressing ecological issues, and I will show with this analysis how the debate that resulted from the Rotterdam Climate Call perhaps could have been more fruitful.

### **WHO IS THE 'WE' THAT ACTS ECOLOGICALLY RESPONSIBLY?**

When speaking about 'we' in matters such as dealing with climate change, one intuitively expects to be talking about 'us, human beings.' Human beings are responsible for climate change and every other ecological disaster through their activities of deforestation, the emission of enormous amounts of CO<sub>2</sub> due to the immense size of the human population and its excessive need of consumption, pollution, and so on. However, speaking in these terms is dangerous and inaccurate. First of all, there is no single agent called 'the human collective.' There is a plurality of human beings, each of them bearing her/his own story and responsibility. Speaking in such general terms is inaccurate and dangerous since it generalizes all these different stories under one single non-existent collective agency. According to Latour, this premise in question has been problematized numerous times, namely that the 'we' which is referred to does not exist as a unitary political entity or moral agent.<sup>31</sup> Humankind consists of different and divided peoples who often fundamentally disagree on complex issues (including ecological ones). A second problem in talk of 'we, human beings' is that it presupposes a dichotomy between human beings and other beings, which is linked to a dichotomy between nature and culture. Ecological thought disrupts such dichotomies by emphasizing the entanglement of different actors in relational networks, in the same ecology. Therefore, it is necessary to map these actors and their roles in a specific ecology and focus on their acting capacities and the effects of those capacities to their environment and other actors. Talking in terms of 'we' automatically leaves aside these crucial ecological steps of identifying different actors with different interests, actions, capacities, troubles, territories, and views.

### **AGENCY**

Latour, Guattari and Haraway actively resist these dichotomies and try to solve them, each in his/her own way. For Latour, the main issue is that the dichotomy between humans and nature corresponds

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<sup>31</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 176 (and his reference to Chakrabarty's argument. See Dipesh Chakrabarty, "Postcolonial Studies and the Challenge of Climate Change," *New Literary History* 43, no. 1 (2012): 15.

with the philosophical and metaphysical difference between activity and passivity.<sup>32</sup> In this modern framework, the capacity of agency is exclusively attributed to human beings, while nature bears the characteristic of mere passivity. According to this logic, nature is obedient to the laws of nature. It does not act on its own and therefore can be used for any of humanity's purposes. However, as we have seen in the Gaia theory, 'nature' does bear the capacity of agency – even this statement relies on the old framework of humankind versus nature, subject versus object. Bruno Latour evokes Gaia in order to eliminate this dichotomy by showing that organisms and their environment are interdependent; they are part of the same composition. This shows that the normal way of speaking and thinking about these topics already presupposes a worldview that undermines the thought of ecology by separating humans from the rest of the world. Thus even merely posing the question 'Why do we fail to act ecologically?' is not as innocent as it seems. That is why words must be chosen with caution in any ecological discourse. Or as Haraway formulates it: 'It matters what matters we use to think other matters with; it matters what stories we tell to tell other stories with; it matters what knots knot knots, what thoughts think thoughts, what descriptions describe descriptions, what ties tie ties.'<sup>33</sup> In the next chapters, I shall go further into the ecologies of Haraway, Latour and Guattari and how they resist these inadequate dichotomies.

## RESPONSIBILITY

Latour does not give a definition of responsibility, neither does Guattari nor Haraway.<sup>34</sup> However, Latour does mention responsibility several times throughout his book. In Latour's usage, it seems that responsibility hinges on at least two points: locality and feedback loops. The point of locality is simultaneously a point of identification: in order for someone to be responsible for something, s/he must be identified and localized. Every agent is embedded in a specific local ecosystem, which is connected to other ecosystems. Latour holds that in order for someone to be ecologically responsible for something, that someone must be localized in a specific ecosystem. Latour emphasizes that localization is about more than mere space-time coordinates, which in fact belong to a global point of view. Localization entails belonging to a territory, having friends and enemies, belonging to a people, and to what Latour calls a *cosmology*, i.e. to a specific local view.<sup>35</sup> A territory is therefore different than the borders of a nation, which Latour deems to be arbitrary. I shall discuss Latour's critique on the nation-state at the end of this chapter.

The point of feedback loops is of high importance for Latour's conception of ecological responsibility, because feedback loops are links that give essential information on the consequences of one's actions. When I know the ecological impact of one of my actions, for example the amount of emitted carbon dioxide that was needed for the production and preparation of my meal, I am responsible for ecological impact because the feedback loop makes me aware of it. In the same

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<sup>32</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 127.

<sup>33</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 12.

<sup>34</sup> Haraway uses her own concept of response-ability, which I explain in the fifth chapter of this thesis, p. 48-49.

<sup>35</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 352.

respect, Latour argues that feedback loops are essential for taking on responsibility because they create awareness of the consequences of actions by providing information on ecological impact. However, feedback loops alone are not enough for becoming responsible. According to Latour, sensitivity is a necessary precondition for allowing people to become affected by feedback loops and change their behavior. He argues that this sensitivity is only dependent on localization. If a people acknowledges to belong to an ecological territory, then they can take on responsibility and be held responsible for their actions. Unfortunately, Latour ascertains that a majority of people, Moderns for example or global, objective Scientists, refrains from belonging to any territory, which makes it impossible to hold them responsible. Latour therefore argues that the ecological territories must be redistributed and mapped. The borders of nation-states are unsuitable for this purpose, because these borders do not define an ecological territory – instead, they define a conquered, constituted and therefore fairly arbitrary territory. Latour argues that ecological conflicts must be fought out on ecological territories, which must be composed out of feedback loops.<sup>36</sup>

Therefore, when talking about the inability to act ecologically responsibly, this should not be mistaken with the inability to act ecologically. This is because, whether you like it or not, everybody always acts ecologically. The assumption of not acting ecologically actually means not acting ecologically *responsibly*. For example, a leaking oil tanker is in fact an ecological actor. The point is that a leaking oil tanker is an ecological disaster. This entails that it does have effects and affects in the ecological field within which it is an actor. However, the effects are detrimental to the environment. Effects are the killing of sea creatures, long-term pollution of the waters and beaches, and so on. Acting ecologically responsibly thus entails understanding the ecological effects of certain actions and taking on the responsibility for taking care of the polluted ecological territory. In the next chapter, I shall further go into the ontology of ecology according to Guattari. In 'The Three Ecologies,' Guattari provides a framework for a comprehension of the matter. It will become clear that next to an ecology of nature, which I have just described, there are more ecologies, such as the social and the mental ecology.

## TOO LITTLE TOO LATE

So the focus should not be on whether human beings are unable to act ecologically, but whether they are unable to act ecologically in a responsible manner. However, there is a strong case to make for the opposite statement: one might indeed say that there are numerous indications that support the fact that at least some human collectives are in fact able to act ecologically responsibly. Take for example the Paris Climate Accord: an agreement signed by nearly 200 countries for an endeavor to battle climate change.<sup>37</sup> This agreement in its turn influences law and governance of the signatories'

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<sup>36</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 334.

<sup>37</sup> Climate Focus, *The Paris Agreement Summary*, December 28, 2015, <http://www.climatefocus.com/sites/default/files/20151228%20COP%2021%20briefing%20FIN.pdf>

countries to become more sustainable.<sup>38</sup> Next to international covenants, there are developments in the market that are hopeful. Financial investments from the G20 countries in the renewable energy sector, or green finance, is increasing.<sup>39</sup> Even though financial investments in the fossil fuel industry, so-called brown investments, still largely overshadow green investments, the increase of green investments seems like an indication that certain investors are at least acting more sustainably. Investments in renewable energy are increasing worldwide. For example, in 2016, 31.000 solar panels were installed worldwide every hour.<sup>40</sup> Solar energy is gaining popularity over the entire world and has become a serious competitor for the fossil fuel industry by becoming increasingly cheaper.<sup>41</sup>

However, these developments seem to be too little too late. Climate change has already been estimated, on average, to rise with 3,2 degrees Celsius by 2100 compared to global average temperatures of pre-industrial times.<sup>42</sup> This will cause a significant rise of sea levels, an accelerated melting of permafrost with severe demographic consequences such as the flooding of coastal areas and an increasing amount of climate refugees.<sup>43</sup> The amount of plastic waste keeps on growing, penetrating deep into the fibers of our existence.<sup>44</sup> The global population keeps on growing, deforestation is continuing at an alarming rate, biodiversity keeps on decreasing, and so forth. Even though the awareness of the ecological disaster of our times is growing and more people are taking on responsibility in this matter, we seem to have reached a point of no return.

The realization of having reached a point of no return can be paralyzing. It is comparable to receiving the message that you or one of your loved ones have become terminally ill. It seems that

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<sup>38</sup> For the definition of sustainability, I use the definition of sustainable development of the 'Report of the World Commission on Environment and Development: Our Common Future: 'Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.' See <http://www.un-documents.net/ocf-02.htm#1>

<sup>39</sup> Climate Transparency. (2017). FINANCING THE TRANSITION FROM BROWN TO GREEN: HOW TO TRACK COUNTRY PERFORMANCE TOWARDS LOW CARBON, CLIMATE-RESILIENT ECONOMIES. (ODI and HVGP). Berlin, Germany. [http://www.climate-transparency.org/wp-content/uploads/2017/12/Financing\\_the\\_transition.pdf](http://www.climate-transparency.org/wp-content/uploads/2017/12/Financing_the_transition.pdf)

<sup>40</sup> REN21. 2017. *Renewables 2017 Global Status Report* (Paris: REN21 Secretariat) [http://www.ren21.net/wp-content/uploads/2017/06/GSR2017\\_Full-Report.pdf](http://www.ren21.net/wp-content/uploads/2017/06/GSR2017_Full-Report.pdf)

<sup>41</sup> Jelmer Molmers and Leon de Korte, "Ieder uur komen er 31.000 zonnepanelen bij. Dit is de grootste revolutie sinds het internet," *De Correspondent*, January 9, 2018, <https://decorrespondent.nl/7578/ieder-uur-komen-er-31-000-zonnepanelen-bij-dit-is-de-grootste-revolutie-sinds-het-internet/835163802-6420b3fd>

<sup>42</sup> See Adrian E. Raftery, Alec Zimmer, Dargan M.W. Frierson, Richard Startz and Peiran Liu, "Less than 2 °C warming by 2100 unlikely" *Nature Climate Change*, September 7 2017, vol. 7, [https://www.nature.com/articles/nclimate3352.epdf?referrer\\_access\\_token=rGqJVr6MDR0aE-1w3d4yPdRgN0jAjWel9jnR3ZoTv0OobQ37\\_qMeRlFkjm76sblj0m1MdjP\\_8Sy3Ur5HLKQNVskHNYg09myF4sdVyvF9UmdNKZ\\_1gsjW\\_tJhLr-Fk5F78bGorGDY8nLHZy4w6Y41DImYdk5pbQVZwgMz\\_aYVLktu\\_9nnp8mZNsNI04aU0-ktPp9LQNAIv2h4yEoTMs4Sm6zOYsAQ8yEqav9pFasY67Y4hh8WJ1Li0ZUmy0Qu2uF6bPWqePgYjptUvsvf\\_SEyfteAhVKK-\\_gJfYzW8gZQK63g%3D&tracking\\_referrer=www.theguardian.com](https://www.nature.com/articles/nclimate3352.epdf?referrer_access_token=rGqJVr6MDR0aE-1w3d4yPdRgN0jAjWel9jnR3ZoTv0OobQ37_qMeRlFkjm76sblj0m1MdjP_8Sy3Ur5HLKQNVskHNYg09myF4sdVyvF9UmdNKZ_1gsjW_tJhLr-Fk5F78bGorGDY8nLHZy4w6Y41DImYdk5pbQVZwgMz_aYVLktu_9nnp8mZNsNI04aU0-ktPp9LQNAIv2h4yEoTMs4Sm6zOYsAQ8yEqav9pFasY67Y4hh8WJ1Li0ZUmy0Qu2uF6bPWqePgYjptUvsvf_SEyfteAhVKK-_gJfYzW8gZQK63g%3D&tracking_referrer=www.theguardian.com)

<sup>43</sup> Josh Holder, Niko Kommenda and Jonathan Watts, "The three-degrees world: the cities that will be drowned by global warming," *The Guardian*, November 3 2017, <https://www.theguardian.com/cities/ng-interactive/2017/nov/03/three-degree-world-cities-drowned-global-warming>

<sup>44</sup> Justin Hofman, "Overall plastic, plastic, plastic: 'Het zit in de haarvaten van ons bestaan,'" *NOS*, April 29 2018, <https://nos.nl/artikel/2229555-overal-plastic-plastic-plastic-het-zit-in-de-haarvaten-van-ons-bestaan.html>

nothing we can do will solve the situation we are in and we are entering a battle which we have lost beforehand. The knowledge of what is to come has either entered too late, not at all or there was simply not enough that humanity could do at the moment. The train of modernization and capitalism has continued on its path of ecological destruction, with nothing on its track to stop it. However, acknowledging this looming 'death of the earth' might be the first step in overcoming this paralysis, just as denial is the first stage in a mourning process. In a recent article, social scientist Mayer Hillman summarizes this beautifully:

We're doomed. The outcome is death, and it's the end of most life on the planet because we're so dependent on the burning of fossil fuels. There are no means of reversing the process which is melting the polar ice caps. And very few appear to be prepared to say so.<sup>45</sup>

Latour acknowledges this train of thought. He claims that there is no normal way in which to deal with the climate problem; it is a definitive situation and the only option left is to learn to deal with it.<sup>46</sup> It is as if humanity has arrived at Dante's inferno, seeing before it the prophetic words inscribed in the gate: *Lasciate ogni speranza, voi ch'entrate*.<sup>47</sup> There is no longer any possibility to return to where we came from, so we must leave every bit of hope for a return to a safe (pre-industrial) era without climate issues: indeed, we have reached a point of no return. The only thing we must do is accept the situation we are in and try to make the best out of it. Of course there are always different possibilities: one can stay paralyzed and do nothing. One can also become even more destructive, just to get it over with. Or one can remain oblivious to the immense danger that is facing us and try to find hope in fixing the trouble with innovative technological solution instead. However, before already trying to find out how to cope with the New Ecological Regime, which I shall address in the fourth chapter, it is first necessary to further answer the research question that was posed in the beginning of this chapter by looking into an important issue: politics.

## REPRESENTATION OF OTHER ENTITIES

I have already mentioned one of Latour's ecological critiques on contemporary politics, namely that it is still based on the borders of nation-states instead of ecological territories. This traditional division of borders and sovereignty causes a lot of ecological problems, because it interferes with the existence, foundation and preservation of ecological territories. According to Latour, the health of ecological territories becomes endangered because national sovereignty disrupts the localization of ecological

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<sup>45</sup> Patrick Barkham, "We're doomed': Mayer Hillman on the climate reality no one else will dare mention," *The Guardian* April 26 2018, [https://www.theguardian.com/environment/2018/apr/26/were-doomed-mayer-hillman-on-the-climate-reality-no-one-else-will-dare-mention?CMP=share\\_btn\\_fb](https://www.theguardian.com/environment/2018/apr/26/were-doomed-mayer-hillman-on-the-climate-reality-no-one-else-will-dare-mention?CMP=share_btn_fb)

<sup>46</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 29.

<sup>47</sup> Dante Alighieri, *Divine Comedy, Inf.* Canto 3: The Gate of Hell.

agents and actions, which undermines the ecological responsibility of these agents. That is why Latour advocates a transaction of sovereignty from nation-states to ecological territories.<sup>48</sup>

In Rotterdam, the plurality of actors was clearly visible in the debate, as was the inability to come up with short-term concrete actions points and long-term solutions. One of the shortcomings in this debate was due to a traditional division between groups, namely civilians, entrepreneurs and politicians. People spoke from their role of belonging to one of these groups, while this division is the reason why the entire debate remained unfruitful. The debate mainly revolved around politics, business, industry, jobs, the wellbeing of the citizens and the emission of CO<sub>2</sub>, and for none of these problems any solutions were given. In line with Latour's critique, it is arguable that this inability to act ecologically responsibly is attributable to two things: first, the diffuse and massive subjects of the debate such as the future of the port of Rotterdam, potential jobs or mass unemployment and the port's ecological pollution, and second, the manner of representation which makes no sense when talking about ecological matters. The first point hinges on the second one, since the participants and what they represent set the terms for the debate. The second point is addressed by Latour which leads him to propose a political representation of other entities. For according to Latour, one of the main flaws of politics in addressing ecological issues is the old-fashioned way in which nation-states nowadays are still organized. He describes this point as follows:

Above all, it was necessary to consider that entrusting to nation-states alone the task of solving the problems created by their very utopian – or at least not very earthbound – ways of occupying their lands was not an achievable goal. National borders [...] solve a four-century-old problem, having been put in place on the one hand to impose peace among religions that had run amuck, on the other to ensure unlimited grabbing of lands that had previously been cleared of the other collectives that had possessed them. After four centuries, after imperial expansions, colonization, decolonization, globalizations, there is no longer anything realistic in an assembly of one hundred ninety-five nation-states. Even if they managed to reach agreement, all the problems that assail them would escape them nevertheless, since they are intertwined in the most inextricable way, to the point where all these problems have become, as it were, *transversal*.<sup>49</sup>

Latour tries to solve this problem by experimenting with different political gatherings and the representation of other entities, which he then proposes as an alternative for the current political model of the nation-states. Inspired by Latour, people have simulated Latour's political and theatrical experiment on a more local topic which is especially interesting for Rotterdam, namely the wellbeing of the North Sea.<sup>50</sup> This project was initiated as a research into the North Sea, the results of which were presented to the Dutch government as input for their policy vision. In the past couple of months, people could hand in motions on behalf of all sorts of different actors which participate in the network

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<sup>48</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 334.

<sup>49</sup> Bruno Latour, *Facing Gaia. Eight Lectures on the New Climatic Regime*, 259.

<sup>50</sup> For more information on this topic, see the website and a "Plea of the North Sea:" <https://theparliamentofthings.org/articles/pleidooi-van-de-noordzee/>

of the North Sea: from different species of birds, fish and other sea creatures and organisms to the fishermen who are dependent on the sea's fish, but also the windmills and the harbors.

## CONCLUSION

This kind of political experimentation in order to tackle ecological problems would be interesting for Rotterdam as well. The debate of the Rotterdam Climate Call perhaps would have been a success if it would have addressed a clear ecological issue between different ecological agents, instead of addressing a political issue between political parties, businessmen and civilians. The climate of Rotterdam is too big of a subject to address. Therefore, if the debate would have been about a clear ecological issue, such as the carbon dioxide emissions from the port of Rotterdam, it would have been more fruitful. Next to the issue, it is important to map the ecological actors: the climate, the ocean, employees of the port of Rotterdam who depend on the fossil fuel industries, entrepreneurs who would have a solution for that exact problem, civilians who experience harm from the polluted output of the port, but also the CEO who depends on the profit made from the fossil fuel industry, and so forth. In this way, the terms of the ecological debate are clear, as well as the ecological proponents, beneficiaries, victims, and opponents. In addition, a useless consensus such as 'we agree that we should become more sustainable' will be avoided; there will be conflict, but at least it will be clear who is responsible for what, creating a situation in which different actors can be held accountable for specific actions.

In this chapter it has become clear that humanity is divided when it comes to finding ways to act ecologically responsibly. The main reason for this division is that the division is inadequate when it comes to ecologies. Ecological territories are linked through networks of relations with myriad ecological actors, whereas humanity has divided itself across arbitrary borders. However, the borders of nation-states are merely part of the problem. The main problem is that all kinds of agents are unable or unwilling to take on their responsibility for their ecological actions. Fortunately, there are agents that are able to take on their ecological responsibility. However, these responsible agents (who Latour calls Earthbound) are still a minority, which shows itself in the worsening detrimental ecological state of the earth.

Perhaps Latour's experimental political system of a representation of other entities could provide solutions for enabling agents to act ecologically responsibly, as they are then obliged to respond to all the different represented ecological actors. For this enabling solution it is also necessary to first somehow create an increasing amount of feedback loops, which can make the ecological impact of different agents' actions insightful. However, this solution still relies on humanity as the savior of the earth for it would come down to human beings to represent these different ecological actors. Donna Haraway is critical of such an anthropological approach, just as she is critical of the anthropocentric term 'Anthropocene', and therefore offers other solutions, which are focused on engaging into symbiosis with all critters on earth. But before going into Haraway's ecological solutions, it is first necessary to get a grip on what ecologies actually are together with Guattari.

### CHAPTER 3: ECO-LOGIC

A common joke in Rotterdam is that its southern part does not belong to the city of Rotterdam. In fact, the only reason to visit South-Rotterdam would be to visit a game of Rotterdams football team Feyenoord in its stadium *De Kuip*. The origin of the joke is simple: South-Rotterdam is not exactly a neighborhood to write home about. It is a poor neighborhood with its fair share of problems such as integration, criminality, poor quality of education, drug and alcohol problems, ugly buildings, high segregation and unemployment. Then again, beauty is in the eye of the beholder. Projects are on the way, namely 'Rotterdam Skillcity,' with the purpose of tackling the local problems and making the neighborhood flourish again. This project will be of a particular interest in this chapter, since its method and analysis are explicitly based on an ecological discourse.<sup>51</sup>

Rotterdam Skill City is a project which is founded by Henk Oosterling, recently retired associate professor of philosophy at the Erasmus University and former Dutch champion Japanese sword fighting: kendo. Rotterdam Skillcity's mission is to break the vicious circle that negatively effects the lives of children and adolescents in poor neighborhoods. Their lack of network, confidence and skills forces these people to remain in dire straits.<sup>52</sup> The people of Rotterdam Skillcity break this circle through an integral, ecological approach of intervention and enhancement in these neighborhoods by focusing primarily on the glue of every community: education. More specifically this approach narrows down to a few concrete actions. The children get a warm meal every day on school; they are not allowed to go home in the breaks anymore. They also help in the kitchen, in order to get to know how their meal is prepared. Besides that, the children are taught where their food comes from by field trips to the local city gardens. After they have had a warm meal, which they might not even receive at home, they even receive lessons in philosophy. Throughout this chapter, I shall explain how this project is an example of the three ecologies in action.

In the previous chapters, I have already mentioned the concept 'ecology' several times. In this chapter I shall go further into detail on this concept, by mainly using Guattari's conceptual analysis deployed in 'The Three Ecologies.' In this essay, several key issues are introduced that according to Guattari are essential in our contemporary ecological challenges. Even though his work is written several decades ago, his points are still highly relevant. Interesting enough, there are several points on which Guattari differs in opinion from Latour and Haraway. The most important point of difference is on the standpoint towards capitalism. For Guattari capitalism is the main threat to the mind, society and environment. In contrast, Haraway and Latour do regard capitalism as an important contributor to the destruction of the environment, but are not convinced that an attack on the capitalistic system is a good solution. Unfortunately this standpoint leads them to not go further into detail about capitalism and its relation to ecology. Nonetheless, Guattari's 'Three Ecologies' is better understandable through his critique on capitalism. The more interesting differences between these philosophers shall become

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<sup>51</sup> Henk Oosterling, *Eco3. Doen denken*. (Jap Sam Books: Heijningen, 2013).

<sup>52</sup> See <https://www.vakmanstad.nl/over-ons/missie-en-visie/>

clear through explaining the key concepts of the ecologies. These concepts will allow me to compare Guattari, Latour and Haraway in the remainder of this thesis.

In the beginning of his essay, Guattari vividly describes an essential aspect of his thought with the following quote from Bateson: 'There is an ecology of bad ideas, just as there is an ecology of weeds'.<sup>53</sup> According to Guattari and Bateson, ecology is not merely limited to the environment, but also to the domains of the mental and the social. These domains are different lenses of what Guattari calls an 'eco-logic': a logic of intensities. Eco-logic is concerned with the 'movement and intensity of evolutive processes,' as opposed to a discursive logic which is focused on a delimitation of its objects.<sup>54</sup>

## CAPITALISM

One of the central points of 'The Three Ecologies' is that capitalism, or Integrated World Capitalism as Guattari calls it (from now on referred to with 'IWC'), is the biggest threat of our time. IWC has a set of characteristics on which Guattari critically focuses throughout his entire essay. In this sense, 'The Three Ecologies' is a work of resistance against this predominant system. Of course Guattari is not the only one who aims to fight the consequences of capitalism; there is an incredible amount of different types of Marxists that try to liberate societies from capitalism, one way or the other.

## THE THREE ECOLOGIES

In the 'Three Ecologies', Guattari summarizes the greatest challenge of our times in the following paradox:

'on the one hand, the continuous development of new techno-scientific means to potentially resolve the dominant ecological issues and reinstate socially useful activities on the surface on the planet, and, on the other hand, the inability of organized social forces and constituted subjective formations to take hold of these resources in order to make them work.'<sup>55</sup>

According to Guattari, an ecology of good ideas is needed to solve this paradox. In order to illustrate the importance of an ecology of good ideas, Guattari decides to construct such an ecology by opposing it to the predominant ecology of bad ideas, namely that of Integrated World Capitalism. As a philosopher and a psychoanalyst, Guattari's strength lies in the connection between these two domains. Therefore, since Guattari as a psychoanalytic philosopher famously dives into the ecological workings of the mind, his work especially stands out from the works of Latour and Haraway when it comes to the ecology of the mind which I shall discuss next. For a better comprehension of Guattari's philosophical toolkit of the Three Ecologies, I shall follow his critique on capitalism, since this critique is very clear.

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<sup>53</sup> Gregory Bateson, *Steps to an Ecology of Mind*, (Ballantine: New York, 1972), 484.

<sup>54</sup> Félix Guattari, *The Three Ecologies*, trans. Ian Pindar and Paul Sutton (Bloomsbury: London, 2014) p. 29.

<sup>55</sup> Félix Guattari, *The Three Ecologies*, 20.

## MENTAL

According to Guattari, Integrated World Capitalism dominates the life worlds of our minds, societies and the environment. IWC takes control over the minds of human beings mainly through mass-media. All over the world, people watch television (cf. nowadays people are even more affected by mass-media through social media). This results in a homogenization of people's subjectivity; everyone watches the same narratives and advertisements. Listening to the same refrains and watching the same capitalistic movies, series and advertisements leads to a serialization of people's minds. It determines their thoughts and daydreams, it regulates their desires and it makes them passive. Guattari vividly describes the effect of watching television in *Chaosmosis* as follows:

When I watch television, I exist at the intersection: (1) of a perceptual fascination provoked by the screen's luminous animation which borders on the hypnotic; (2) of a captive relation with the narrative content of the programme, associated with a lateral awareness of surrounding events (water boiling on the stove, a child's cry, the telephone . . .); (3) of a world of phantasms occupying my daydreams. My feeling of personal identity is thus pulled in different directions. How can I maintain a relative sense of unicity of components of subjectification that pass through me? It's a question of the refrain that fixes me in front of the screen.<sup>56</sup>

The hypnotic passivity described by Guattari mainly results from the fact that people do not have to think for themselves anymore; all their mental activities can be guided through what they see on their screens, and off-screen repeated in their thoughts, dreams, and day-dreams. Companies solely try to make a maximal profit by making television as addictive and brainwashing as possible. On the level of the mental ecology, this can be seen as a prime example of an ecology of bad ideas: IWC taking over the minds of people, like a deadly algae species takes over an entire swamp and killing all the biodiverse life in it, through homogenization and serialization of the consumer's mental life worlds.

## SOCIAL

On a social level, IWC is visible in the social ecology in accordance with the mental ecology in the sense that societies are regulated to the norm of making profit. Guattari stresses that all other humanitarian values are flattened out by the capitalist value system.<sup>57</sup> In this discourse, everything has a price, time is money and investments are only worthwhile if there is a calculable return on investment. In this analysis, Guattari's Marxist side becomes visible when he claims that the capitalist society produces three types of subjectivity: that of the salaried, the uninsured and the elite.<sup>58</sup> These three types of subjectivity are the pillars on which the capitalist society is built; the worker/consumer, the capitalist owner and the exploited. They are produced in the capitalist society by means of the

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<sup>56</sup> Félix Guattari, *Chaosmosis: an Ethico-aesthetic Paradigm*, trans. by Paul Bains and Julian Pefanis (Power Publications: Sydney, 1995), 16-17.

<sup>57</sup> Félix Guattari, *The Three Ecologies*, 44.

<sup>58</sup> *Ibidem*, 41.

mass media which constantly uphold the production of these subjectivities every day in people's households and on the streets.

### ENVIRONMENTAL

The environmental ecology is not about nature; it encompasses the hybrid environment that is a result of interactions between different kinds of actors. In various aspects, Guattari's environmental ecology is similar to Latour's conception of Gaia. Indeed, Guattari emphasizes as well that the human influence alters the environment, creating entirely new kinds of assemblages. Guattari offers us a striking example of hybrid form causes by all sorts of actors interacting with each other, namely of an experiment with an octopus living in polluted waters. At first, the octopus can be seen vividly dancing in an aquarium. The water the octopus is in, however, is extremely polluted, the octopus apparently having adapted to its supposedly damaged environment. At the moment the octopus is transferred into another aquarium with fresh, healthy water, it immediately curls up and dies. Here we see a hybrid form between nature on the one side and society on the other side, intertwining with one another to such an extent that nature has adapted to its new (polluted) conditions created by society.

### COMMON PRINCIPLE

Guattari formulates a common principle of the three ecologies, which gives us a better view of the underlying ontology he adheres to. According to Guattari:

The principle common to the three ecologies is this: each of the existential Territories with which they confront us is not given as an in-itself [*en-soi*], closed in on itself, but instead as a for-itself [*pour-soi*] that is precarious, finite, finitized, singular, singularized, capable of bifurcating into stratified and deathly repetitions or of opening up processually from a praxis that enables it to be made 'habitable' by a human project.<sup>59</sup>

Guattari refers here to the ontology he has expanded elsewhere together with Deleuze when he mentions existential Territories. To discuss the entire ontology of Deleuze and Guattari, further developed in 'A Thousand Plateaus,' is beyond the scope of this thesis. Luckily the gist of the citation above can also be understood without a full elaboration of 'A Thousand Plateaus.' The existential Territories refer to the domains of the mental, the social and the environmental. They are 'finite personal worlds of constrains, limits and coordinates.'<sup>60</sup> These domains are not separated – instead, they are fields of intensities that constantly intertwine and intersect with each other. This does not entail that they are the same; they are different, but constantly interact with and through each other. Further characteristics of this common principle will become more clear through the explanation of several key concepts which I shall discuss next: subjectivity, singularity and transversality.

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<sup>59</sup> Félix Guattari, *The Three Ecologies*, 36.

<sup>60</sup> Guattari, *Chaosmosis*, 93.

We have already caught a glimpse of what existential Territories can become. They are capable of bifurcating into either deathly repetitions or an opening up into habitable territories of the three ecologies through human praxes. What a deathly repetition is, became clear in the example of how IWC infiltrates into our mental ecology through brainwashing people with commercials and predictable easy entertainment that repeat themselves in the dreams and daydreams of those people. An example of the habitable territories that are opened up by certain human praxes can be found in the project of Rotterdam Skillcity. This project is an explicit attempt to liberate a group of vulnerable people living in impoverished neighborhoods that have a higher chance of becoming a victim of IWC by getting trapped in its deathly repetitions. By using an ecological approach, taking into account the environment, socio-cultural relations and the mental state of the children in the reformation of their education, Rotterdam Skillcity is able to open up the territories inhabited by the people living in South-Rotterdam and make them habitable again. Through the creation of new ecological relations and their enforcement, school children and their families are enabled to escape from IWC's deathly repetitions that are imposed on them through all sorts of media. The most important way in which these ecological relations are established is by creating feedback loops: children are taught where their food actually comes from by visiting farms and by helping out in the kitchen – instead of believing that it comes from the supermarket, they learn about social and bodily relations through judo lessons in which they learn that girls are actually stronger at that age – disrupting stereotype female images portrayed in mass media, and also they learn about their thoughts and feeling through philosophy lessons – in contrast with passively copying thoughts and phrases imposed on them by IWC. In this way, new ecological territories are opened up, causing unpredictable chain reactions in the ecological environments of South-Rotterdam.

Guattari describes some of these human praxes as well when he refers to the Freinet schools which aim to singularize their pupils through all sorts of cooperative activities that the students themselves have to undertake, such as writing a local newspaper or addressing local issues to the municipality by writing letters.<sup>61</sup> In the way Guattari uses the term here, singularity on the level of the existence of the pupils thus translates practically into an education for children through which they learn to think for themselves, with each other, about their own lives and the worlds surrounding them. Not all schools teach this way, since most schools simply adhere to standardized textbooks which children are supposed to learn without thinking about what they are actually learning and why they are learning it. Admittedly this is a simplified version of reality, but it is merely to delineate the difference between seriality and singularity in the light of what the bifurcation of existential Territories might look like.

## **SUBJECTIVITY**

Another crucial concept which Guattari uses throughout his work is the concept of subjectivity. Guattari's definition of subjectivity corresponds to the operations of the eco-logic described by him as

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<sup>61</sup> Félix Guattari, *The Three Ecologies*, 35.

being a logic of intensities, 'of auto-referential existential assemblages engaging in irreversible duration.'<sup>62</sup> It also entails that subjectivity is some kind of field of intensities that is something apart from what people normally tend to understand under 'subjectivity' in its daily use, namely 'the quality, state or nature of being subjective' or biased as opposed to objective.<sup>63</sup> According to Guattari, subjectivity bears the characteristics of being deindividuated and depersonalized, involving non-predetermined interrelations, producing differences and having a non-linear and non-logical evolution.<sup>64</sup> This entails that subjectivity is a phenomenon that must be seen as decoupled from the individual. However, subjectivity is in some way related to the individual since it still determines the thoughts and behaviors of an individual. A good example of subjectivity can be found in the three types of subjectivity Guattari analyses that are produced by the capitalist society, namely those of the salaried, the elite and the uninsured. This statement already entails that subjectivity is depersonalized and deindividuated, since it implies that a person can belong to a type of subjectivity but has no specific subjectivity of her/his own. Furthermore, subjectivity is a central aspect in Guattari's critique on capitalism: Integrated World Capitalism destroys all singular subjectivities through its homogenizing mechanisms. In a certain sense this is the opposite of what Guattari means with subjectivity, and this could also give us the key to understanding central strands of thought of Latour and Haraway.

However, the claim that subjectivity is a group phenomenon does not imply the exclusion of difference. At first sight this does seem to be the case since subjectivity is a group phenomenon and capitalism produces certain serial types of subjectivity which I have just mentioned. On the contrary, one of the main properties of subjectivity is that it in fact produces differences. Subjectivity is always part of a group of people. As Genosko explains it: 'There are different kinds of subjectivity, but they are always of the group.'<sup>65</sup> Guattari therefore advocates experimentation in social contexts which can lead to stronger social relations again – as opposed to those individuating non-relations which are produced by IWC. Such kinds of experimentation, 'as much on a micro-social level as on a larger institutional scale,' bring forth new, singular kinds of subjectivity.<sup>66</sup>

Also these new, experimental, singular kinds of subjectivity which bring about stronger social relations are becoming visible in Rotterdam-South as a result of the social experimentations of Rotterdam Skillcity. For example, the simple experiment with the children having to eat a warm meal for lunch at school every day already brings about new subjectivities. Besides benefits that result from the fact that for some children this is the only warm meal they might even be able to get on that day, the renewed school policy leads to new complicated relations. Parents of the kids want to get involved in the school's kitchen, even if only to ensure that their kids' meals do not contain any products which are forbidden by their culture or religion. Involvement like this can lead to further involvement, for

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<sup>62</sup> Ibidem, 29

<sup>63</sup> Definition obtained from <https://www.merriam-webster.com/dictionary/subjectivity>.

<sup>64</sup> Gary Genosko, "The Life and Work of Félix Guattari: From Transversality to Ecosophy," in *The Three Ecologies*, Félix Guattari (Bloomsbury: London, 2014) 55.

<sup>65</sup> Ibidem.

<sup>66</sup> Félix Guattari, *The Three Ecologies*, 22.

example in the local community centers which are being used for workshops where the children can learn useful practical skills, such as electro-technics and woodworking but also playing an instrument.<sup>67</sup>

## SINGULARITY

So it seems that Guattari is mainly an advocate of singularity, which can be achieved through the modes of thought which the three ecologies have to offer. Singularity is the opposite of seriality – a mode of being which is homogeneous and produced by the mechanisms of IWC and the mass-media with its 'telematic standardization.'<sup>68</sup> According to Guattari, the mental ecosophy should lead us to a reinvention of the relations we have to the body and life and death in general, in a way that can provide us with an antidote to the mass media, IWC, conformism, et cetera.<sup>69</sup> This antidote, this new relation, is mainly described by Guattari throughout his work as 'singularity.' Singularity is that which is out of the ordinary, an experiment which breaks through the vicious circle of seriality, that which is irreducible to any pre-existing category, and so forth. Guattari recognizes an 'erosion of subjectivities, assets and environments' which are 'destined to enter into a phase of decline' and henceforth are resulting into 'demands of singularity.'<sup>70</sup> However, this is not necessarily a positive development, since these demands of singularity might possibly give rise to the election of charismatic populist leaders who can then again be the embodiment of IWC.<sup>71</sup>

Singularity is thus an important counter-measure which can protect people from the deathly homogenizing repetitions with which IWC is bombarding them all around the world. The problem is however that the demand for singularity can become dangerous when it results in the rise of populism. Especially in contemporary times where people are in search of meaning everywhere, this void has the tendency to be filled up with nationalistic leaders who are often hate-spreading and xenophobic. Nationalism seemingly corresponds with singularity in the sense that it revolves around the protection of a singular, national identity. However, nationalism leans more toward homogenization since it often consists of the exclusion of everyone who and everything that is different. Notwithstanding this disclaimer, singularity remains the mean for Guattari in the ecosophical battle for the proliferation of the mind, the society and the environment. This does not merely hold for Guattari and does not come out of nowhere; also Latour and Haraway recognize the desperate need for singularity in these dangerous and vulnerable times of damaged ecosystems. For Latour this results in the experimentation with and recognition of the political representation of a plurality of entities described in the previous chapter, which could hopefully lead to similar proliferations of Gaia's ecosystems. In my view, the protection of singularity corresponds with maintaining the existence of (bio)diversity, in the sense that singularity on the social and environmental level entails diversity rather than homogeneity. The protection and representation of different kinds of ecological entities therefore fits in the picture of

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<sup>67</sup> Henk Oosterling, *Eco3. Doen denken*, 130-147.

<sup>68</sup> Félix Guattari, *The Three Ecologies*, 23.

<sup>69</sup> *Ibidem*, 23.

<sup>70</sup> *Ibidem*, 20.

<sup>71</sup> Men like Donald Trump for example, whom Guattari compares with a species of algae (Guattari, p. 28).

the proliferation of singularity. Likewise, Haraway pleads for the creation of new and restoration of old stories that depict struggles of different ecological actors, including other kinds of organisms and specific places, which in a similar manner corresponds with the creation and preservation of singularities which we must not forget.

## TRANSVERSALITY

A final key concept which Guattari repeatedly uses in his elaboration of the three ecologies is the concept of transversality. The reason why this concept is also discussed in this thesis, is because transversality is a concept which is indirectly used by Haraway as well, through which her work and its relation to 'The Three Ecologies' also becomes better comprehensible. As can be read in Gary Genosko's essay on 'The Life and Work of Félix Guattari: From Transversality to Ecosophy,' Guattari mainly used the concept of transversality as a political concept which could transform institutions.<sup>72</sup>

The institute with which Guattari was perhaps most familiar because of his psychiatric background, was of course the psychiatric institute. Guattari discovered that the institute itself, along with every aspect of it and the way it is organized, plays a huge role in the treatment of patients. Concomitantly, the organization of the institution and the way it relates to the patient is a determining factor for a successful recovery of patients. Genosko explains that 'the institutional object is known by means of group subjectivity and the innovative conceptual tool used to pose the question is transversality.'<sup>73</sup> Thus the 'institutional object', in this case the psychiatric institute, or in the case of Rotterdam Skillcity the primary school, is known by means of group subjectivity. That is, the institutional environment can be truly known by objectively analyzing the subjectivity of the group. If the group functions in a bad or unhealthy way, it must somehow be traced back to the environment.

So transversality is 'the innovative conceptual tool used to pose the question' of what the institutional object is. The institutional object is not necessarily an institute. It is known by means of group subjectivity, and we have already seen several forms of group subjectivity denoted by Guattari which are produced by IWC, notably those of the salaried, the uninsured and the elite. It is conceivable what the institutional objects of those group subjectivities could be: the company, the government, the workplace, the luxurious office, but also the marketplace, the school, the hospital, the ghetto, and so forth. Basically the institutional object can be equated to the daily environment of certain groups. Transversality is then a conceptual tool with which the effect of a specific environment on a group subjectivity is analyzed through a specific focus on the space in between. It is 'a space in which becomings are truly creative – radically open and simply not what is now actual.'<sup>74</sup> This formulation seems complicated at first sight, but can be easily explained with the example of Rotterdam Skillcity. If we could compare the difference between the children in primary school before and after Rotterdam Skillcity's ecological interventions, it would seem as if the children and their environment have realized

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<sup>72</sup> Gary Genosko, "The Life and Work of Félix Guattari: From Transversality to Ecosophy," 51.

<sup>73</sup> Gary Genosko, "The Life and Work of Félix Guattari: From Transversality to Ecosophy," 55.

<sup>74</sup> *Ibidem*, 56.

more of their potential. However, this realization of potential of these children could not be realized without an ecological approach in which the environment and the social ties are improved. Transversality is the potentiality that is inherent in these intersecting ecologies which can only be attained through an alteration of the three ecologies.

## CONCLUSION

In this chapter I have discussed several key concepts of ecology, based on Guattari's essay on the Three Ecologies. These concepts, notably transversality, subjectivity, and singularity run through the three ecologies one way or the other. I have shown this by also elaborating the three ecologies: the mental, the social and the environmental. Because of the highly theoretical, ontological and abstract nature of 'The Three Ecologies,' I have used the concrete example of Rotterdam Skillcity in my explanation to provide more clarity where needed.

The extensive explanation of 'The Three Ecologies' in this thesis is necessary for two reasons. First, 'The Three Ecologies' provides us with an elaborate explanation of what ecology is. Ecological philosophy is a type of philosophy, which is used by Haraway and Latour as well, but they do not provide as with a systematic explanation of what it consists of. Here it must be remarked that the ecologies of Latour, Haraway and Guattari are not necessarily the same. On the contrary, even though there is much overlap between them, there are also many differences. Still this claim is hard to prove precisely because of the lack of any systematic explanation of ecology from Latour and Haraway. However, besides these remarks, comparisons between these philosophers can definitively be made by analyzing their claims and standpoints on ecological issues, be it philosophical, political or of any other nature.

This brings me to the second reason for the elaboration of Guattari's ecological philosophy: it provides us with a conceptual framework for comparison between Guattari, Haraway and Latour. Guattari's concepts are implicitly present in the works of Latour and Haraway as well. Take for example transversality. Transversality is used by Guattari as an ecological concept that incorporates the interaction between subjects and the environment as an important factor for determining the potentiality of those subjects.<sup>75</sup> This idea is also present in Latour when he argues that not only do organisms adapt to their environment (in accordance with Darwinistic theory), being in this sense altered by their environment, but organisms in their turn alter their environment as well, for example by turning CO<sub>2</sub> into oxygen. Likewise, when Latour proposes an extension of the political representation for an inclusion of other entities, this also entails a transversal adjustment of an environment for enhancing the potential of other entities. Haraway, as we shall see in the further chapters, in a similar fashion indirectly uses the concept of transversality as well through her concept of rendering each other capable.<sup>76</sup> Even though I am in a sense stretching Guattari's concept here, it still works as a tool for comparison.

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<sup>75</sup> I equate the institution here with the environment

<sup>76</sup> For an example see Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 22.

This comparison brings the discussion to a higher level since the different arguments and concepts allow for a reciprocal criticism and enforcement of each other's ideas. It also allows me to then take in a substantiated position from a bird's eye view. Moreover, it enables me to give an answer to the question how philosophy can contribute to learning how to cope with the New Ecological Regime, since the comparison on a conceptual level is philosophical *par excellence*. The conceptual comparison will take place in the fifth chapter, which I shall simultaneously use in order to explain Haraway's philosophy. After having made the conceptual comparison between Guattari, Latour, and Haraway at the end of the fifth chapter, I will be able to answer the question how philosophy contributes in coping with the New Ecological Regime. In the next chapter, I shall discuss the different positions each of these philosophers takes in within the ecological debate. For even though their ecological philosophies show striking conceptual similarities, the way each philosopher uses these concepts and the positions they take within the ecological debate are fairly different and worth investigating.

Why, then, one might ask, is it necessary to determine how philosophy can contribute to coping with the New Ecological Regime? A simple answer would be that this is a philosophical thesis, and what Latour, Guattari, and Haraway have in common is that they are all three ecological philosophers. Still, I could simply try to answer my research question of how to cope with the New Ecological Regime without making this reflexive move. However, as we have already seen in the previous chapter, a common trait in ecological debates is the lack of systematic reflection and imagination, which are characteristic traits of philosophical explorations. These debates often revolve around jobs and profit rather than underlying ecological principles or existential motivations. Most governors, businessmen, managers, politicians and workers seek practical solutions rather than taking the time to reflect on what is valuable and could guide and direct them in their actions. Philosophy is invaluable for determining how to cope with the New Ecological Regime, because it calls for fundamental reflection on what made it possible, what it exactly consists of, what course of thought and action is called for and why. Determining how philosophy can contribute to coping with the New Ecological Regime is therefore vital: how else could this philosophical thesis contribute to learning how to cope with the New Ecological Regime, if it cannot display the merits of its own undertaking, nor even show how it contributes to the ecological debate?

## CHAPTER 4: COPING WITH THE NEW ECOLOGICAL REGIME

In my own conquest in trying to act more sustainably myself, I have made it my top priority to create the most sustainable impact I could possibly make. The way in which I have done this was mainly by convincing the Executive Board and its policy makers of the Erasmus University of the importance of sustainability and alarmed them in undertaking action immediately. Along the way, my fellow council members and I discovered that the best way through which a university can make the biggest sustainable impact is through its core activities: education and research. However, before the Executive Board could take serious measures on this point, all the faculties had to become aware of the importance of sustainability and willing to move along in this process.

One of the results of the negotiations between the University Council and the Executive Board was the organization of a conference titled: 'Sustainability: The Next Level.'<sup>77</sup> This conference was meant to gather the input of the entire academic community on how to bring sustainability on the Erasmus University to the next level. Different topics were discussed, such as sustainability at the level of operations of the university, but also on the level of individual choices, and on the most important level of education, research and strategy. During the plenary part lots of different speeches and pitches were held, mostly by professors from DRIFT, an independent research institute specialized in the acceleration of transitions towards more sustainable societies.<sup>78</sup>

A transition towards a more sustainable society: this seems to be the goal of this conference as well. The means with which to achieve that goal are especially a change in the university in such a way that sustainability will pervade its core activities. Despite the attendance of a diverse public consisting of support staff, students, professors and directors, the conference was mainly visited by 'the usual suspects'; people who are already involved in sustainability one way or the other. During the conference, these sustainability proponents have designed future scenarios with each other on how sustainable the Erasmus University should be in 2023, and how they can start realizing these scenarios tomorrow.

However, the question remains whether such a course of action is a desirable way of coping with the New Ecological Regime. Even if all of the most ambitious scenarios would be realized, such as the incorporation of sustainability in all curricula, the banishment of all plastic from campus and introducing sustainable impact as a key performance indicator for research, it remains unclear what the argumentation behind it is, besides developing in such a way 'that meets the needs of the present without compromising the ability of future generation to meet their own needs.'<sup>79</sup> What is the academic community actually trying to achieve when constructing such ambitious plans? Even though I have initiated the organization of this conference, I remain critical of what is actually

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<sup>77</sup> <https://www.eur.nl/en/events/conference-sustainability-next-level-31-may-2018-2018-05-31>.

<sup>78</sup> See <https://drift.eur.nl/>.

<sup>79</sup> [United Nations General Assembly \(March 20, 1987\). "Report of the World Commission on Environment and Development: Our Common Future; Transmitted to the General Assembly as an Annex to document A/42/427 – Development and International Co-operation: Environment; Our Common Future, Chapter 2: Towards Sustainable Development; Paragraph 1." United Nations General Assembly. Retrieved 1 March 2010.](#)

happening. I am not sure whether such a conference is the way to go. In this critical reflection on the academic community's and my own way of coping with the New Ecological Regime, I will compare the different positions of Latour, Guattari and Haraway in formulating a standpoint on how to cope with the New Ecological Regime. I am inspired by the researchers of DRIFT from whom I derived the idea of engaging in a critical research and reflection of one's own measures and advices.

In this philosophical comparison, it is important to take into account that Latour, Guattari and Haraway are very similar in a lot of different aspects. They are all three sensible materialists and ecological philosophers.<sup>80</sup> They seek to change the way we think and act by decomposing rigid categories, dichotomies and political structures and recomposing the world through ecological explorations and experimentations. They are all three in a sense political activists, by changing institutions, proposing new political structures, telling stories of indigenous people, telling stories of becoming-with other species and standing up for them. They all plead for different names and paradigms in order to make the world habitable again: through ecosophy, the evocation of Gaia in the Anthropocene, or the enabling of multi-species flourishing in the Chthulucene. They all agree that the capitalistic, modernistic, thoughtless world we live in is dangerous, corrupt, causing devastating environmental impact and extinctions of all kinds of species.

However, what is more interesting is the points on which they differ, since it is through those points that we are able to determine the merits and deficits of their positions within the ecological debate. In this chapter, I shall address these differences in two ways. First, I shall compare the three ecologists by analyzing their respective attitudes towards coping with the New Ecological Regime. I shall argue that Guattari is in a certain sense a techno-optimist and that Latour is an apocalyptic. Latour's apocalyptic position has already been explained in the first chapter, which mainly consists of the urge to convince all sorts of peoples with different worldviews of the fact that they find themselves in the apocalypse and therefore must react as urgently as if they were at war. A techno-optimistic approach comes down to a belief that the current and upcoming ecological disasters can be overcome by geo-engineering, i.e. a regulation of the environment with technological innovations.

Even though both of these attitudes have their merits, they remain unsatisfactory for several reasons. Also I shall argue that Guattari's focus on human exceptionalism and Latour's war-like Schmittian approach do more harm than good. Donna Haraway's way of coping is by learning how to stay with the trouble by, among other things, focusing on ongoingness and storytelling without a real purpose. Instead, Haraway emphasizes the importance of remembrance, resurgence, and curiosity. I shall argue that Haraway's way of staying with the trouble in these dangerous times is the best position when it comes to coping with the New Ecological Regime.

## GUATTARI AND TECHNO-OPTIMISM

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<sup>80</sup> See Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, pp. 274 and 202, Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene* 12, Félix Guattari, *The Three Ecologies*, 33.

In a certain sense, the contemporary ecological situation of the New Ecological Regime is comparable to a patient who learns from the doctor that s/he is terminally ill. As already explained in the first two chapters, the world is headed towards inevitable disaster. For example, recent research has shown that the melting of the ice caps is going faster than expected, in its turn causing sea levels to simultaneously rise much faster than expected.<sup>81</sup> Every day people are learning more about the dangers that are lying ahead of them, and the dangers are becoming increasingly dangerous. A rising sea level is merely one of the many dangers people are facing today, getting increasingly dangerous by the minute.

Ecology bears the stereotype connotation of a nostalgic attitude, since people tend to associate ecological activists with a certain nostalgia towards a time in which things were better. In ecological terms, things were perhaps better in the pre-industrial area: there was less CO<sub>2</sub> in the air, less pollution in the soil, water and air, there were less people on earth and in a certain sense ordinary people still had a more primal connection with nature. Nowadays, ecologically speaking (and this holds for all three of Guattari's ecologies), the situation has worsened dramatically. The average Western person has no real connection with nature anymore due to a growing urbanization and the gradual disappearance of untouched nature. Instead, people are stuck on their screens all day, managing their private and working lives, completely dissociated from the world around them which they are destroying through buying unsustainable products online. The question remains of course whether ecological thought would have ever appeared without these ecologically disastrous developments of the past centuries.

To show that ecological thought does not consist of a nostalgic yearning for a state in which people somehow return back to nature (which is often a stereotype), it is important to keep in mind that Guattari was well aware of the fact that there is no point of return anymore: the ecological times of the pre-industrial era will not return anymore. Also, there is no reason to believe that a return to these times would be a desirable scenario, since each era has its own problems to deal with. On the contrary, Guattari's 'The Three Ecologies' provides us with a conceptual toolkit which affirms being at a point of no return, since the irreversibility of states of ecosystems is in accordance with the non-logical evolution of ecologies. I have explained Guattari's principle of the non-logical evolution of subjectivity in the third chapter, and this principle is applicable to all three ecologies, since according to Guattari subjectivity is formed between individuals and their environments.

This ecological principle of irreversibility of ecosystems also gives us an understanding of why Guattari deems genetic engineering and geo-engineering to be necessary, even to such an extent that the creation new species or revival of extinct ones will become an inevitability. The reason for this is that both are technologically viable option which in accordance with eco-logic must be taken into account. People and their machines are responsible for causing tremendous ecological damage to the environment, so Guattari predicted there being a high chance in the future that people will be forced to use machines in order to regulate the environment. And indeed, this future has already been realized to a certain extent when it comes to geo-engineering: the regulation of the amount of CO<sub>2</sub>

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<sup>81</sup> <http://imbie.org/about-the-project/sea-level-rise/>

in the atmosphere or the production of rain.<sup>82</sup> Guattari therefore suggests to rename the environmental ecology and turn it into the machinic ecology, since the creation of new living species and the regulation of the atmosphere are bound to happen. His point is that these technological innovations are a given and therefore an ecosophical ethics must be formulated in order to be able to deal with these innovations in such a way that the destiny of humanity is safeguarded.<sup>83</sup>

Admittedly, a techno-optimistic approach of dealing with the New Ecological Regime is slightly different than Guattari's approach, since Guattari advocates the formulation of an ecosophical ethics which could provide ethical guidelines on how to deal with large scale technological interventions in ecological systems. Also, Guattari's work contains many good suggestions on how to think and act ecologically, examples of which we have seen throughout the previous chapter such as the Freinet schools. However, when it comes to taking in a techno-optimistic approach of regulating the environment with geo-engineering and the creation of new living species, I am skeptical. Even with an elaborated ethics, the principle behind regulating the environment and creating new species is problematic: it assumes that human beings (mostly scientists and politicians) can play God, that they can control Gaia, and that they are able to establish guidelines for themselves which could somehow guarantee a safe result. Also, Guattari's purpose of this ecological intervention seems to miss the point, since he concomitantly emphasizes 'the invention of a politics focused on the destiny of humanity.'<sup>84</sup> If ecological philosophy has learned us any lessons, then surely one of them must be that a sheer focus on the destiny of humanity is perhaps what brought us in these ecologically dire straits in the first place. Instead, I would argue for the invention of a politics focused on the destiny of the earth in its entirety, including all species on it and the environment.

A more fundamental critique on the techno-optimistic approach is its faith in the controllability of the environment. Techno-optimism departs from the presupposition that the environmental ecologies are controllable with technology, and thus that any environmental disaster may be prevented or saved through technological interventions. An example of a techno-optimistic solution is the storage of carbon dioxide. This type of storage is already commonplace and is being proposed as a solution for future scenarios of battling global warming, for example by Shell.<sup>85</sup> The storage of carbon dioxide is a form of negative emissions, which is optimistically estimated to be an ecological life-saver in terms of reducing global warming. However, not only are the amounts of estimated negative emissions unrealistic because there are no proven large-scale techniques of carbon dioxide storage that could store incredible amounts, and even though it is misleading to rely so heavily on these unproved and so far unprecedented technologies: the fundamental ecological mistake is to rely

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<sup>82</sup> See for example Jeffrey Lin and P.W. Singer, "China is using furnaces to manufacture 10 billion tons of rain," *Popular Science*, April 11, 2018, <https://www.popsci.com/china-cloud-seeding-silver-iodide-furnace>

<sup>83</sup> Félix Guattari, *The Three Ecologies*, 45.

<sup>84</sup> *Ibidem*.

<sup>85</sup> See Jelmer Mommers, "Negen onjuiste uitspraken in 33 minuten: zo beïnvloedt Shell-CEO Ben van Beurden het publieke debat," *De Correspondent*, May 7, 2018, <https://decorrespondent.nl/8195/negen-onjuiste-uitspraken-in-33-minuten-zo-beïnvloedt-shell-ceo-ben-van-beurden-het-publieke-debat/2041336860365-882fec64>

so heavily on global-scale technological solutions, because the principles underlying ecologies are non-linear, unpredictable and evolutionary. These principles therefore undermine any attempt large-scale intervention that relies on assumptions of predictability and controllability.

Notwithstanding this critique, the many merits of Guattari's ecological philosophy must not be underestimated. His development of the three ecologies has laid the groundwork to be followed and further elaborated by many ecological philosophers after him. Especially the ontological framework with which Guattari provides us is useful for comparing the standpoints of other philosophers. By the end of this chapter, I lay out this fundamental philosophical comparison between the ecologies of Guattari, Haraway and Latour based mainly on the concepts of transversality, singularity, and subjectivity.

I have portrayed Guattari here as a techno-optimist with another purpose next to criticizing the points mentioned above, namely with the purpose of criticizing a techno-optimistic approach in general. Not only are techno-optimistic scenarios often used as an excuse for upholding to undertake immediate action with regards to ecological issues by sketching future scenarios in which all problems will be solved; a techno-optimistic approach is problematic in general since it refuses to acknowledge the real problems which are at stake here. The real problems are in the way Western people in capitalistic societies live their consumerist lives by outsourcing their responsibilities to other countries. In my opinion, any techno-optimistic approach refuses to acknowledge the fundamental issues of leading a capitalistic lifestyle which destroys ecologies worldwide.

### **LATOUR'S MYTH OF THE APOCALYPSE**

In order to address this problem, i.e. the lack of acknowledgement of any fundamental problems in the New Ecological Regime, Latour proposes we take on a militant approach. According to Latour, a war is looming between different populations and Gaia. He compares the situation we are now in, with immanent dangerous threats facing us from Gaia, with a situation of war. A huge difference with a real time war situation and the establishment of the New Climatic Regime is that we find ourselves in a situation right now with a lot of objective information indicating that many ecological dangers are on the horizons, but no vast amounts of expenses are being spent on waging this ecological war.<sup>86</sup> In the case of an immediate war, this would be different: when at war, entire states are mobilized to engage in warfare in order to secure their own safety.

We have seen with Latour that one of the reasons for people not being alarmed is their attitude towards this upcoming apocalypse; either they are already in the post-apocalyptic paradise at the end of history, or they are already in the apocalypse, or the apocalypse is still yet to come. The group of modern people who believe that the apocalypse has already taken place, is insensitive towards all the destructive feedback they get from their actions. When taking a closer look at this last group of people, which I believe to be the most widespread and predominant group, translating this attitude into their

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<sup>86</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 73.

set of beliefs we automatically return to the ideology of capitalism. This can be explained by one of Francis Fukuyama's famous quotes from 'The End of History':

What we may be witnessing is not just the end of the Cold War, or the passing of a particular period of post-war history, but the end of history as such: that is, the end point of mankind's ideological evolution and the universalization of Western liberal democracy as the final form of human government.<sup>87</sup>

Even though within Western liberal democracy there are of course many differences of opinion on the extent in which to embrace free-market capitalism versus governmental interference and regulation, the ideological evolution of Western liberal democracy as the final form of human government does indeed entail an embracement of capitalism as the reigning economical system. In this sense, Latour indirectly criticizes capitalism without wanting or admitting to actually do so. Latour's conception of people who believe to already live after the apocalypse is actually the same group of people who have witnessed the end of history, that is, 'the universalization of Western liberal democracy as the final form of human government' and the concomitant universalization of capitalism as the final form of human economy.

Latour tries to find ways to make those people sensitive again, by convincing them of the advent of the apocalypse, so that they will react as if in war or in a life-threatening situation: by immediately prioritizing their own safety through waging and winning the war. In other words, Latour wants to get the majority of people to start believing in the myth that we are in the apocalypse right now. That is why Latour is a proponent of calling this era the Anthropocene, since it reminds people of the fact that their actions have immediate consequences on the earth's composition.<sup>88</sup> However, this is also precisely the point on which Haraway fundamentally disagrees with Latour and insists on the name Chthulucene, since according to her the Anthropocene is a term which contains self-fulfilling myths of apocalyptic times.

The only politically realistic way to make this majority of people believe in the myth of the current apocalypse, according to Latour, is to engage in combat with them. Latour argues, drawing arguments from theological political philosopher and German Nazi jurist Carl Schmitt, that the territories on earth are divided politically, and that politics is always based on a myth.<sup>89</sup> Latour's unorthodox (or perhaps extremely orthodox) suggestion is therefore to redistribute the territories based on a sovereignty of actors instead of nation-states based on the myth of the apocalypse of the New Climatic Regime. These different groups of people, who according to Latour are necessarily religious in light of his myth of the apocalypse, must fight a war if they are to ever sit at a table on equal terms and negotiate a peace treaty.

Latour is right in saying that something needs to happen: territories have to be opened up, distributed or redistributed, politics has to change in a sense that nation-states should forget about

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<sup>87</sup> Francis Fukuyama, "The End of History?," *The National Interest*, No. 16 (Summer 1989), 4.

<sup>88</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 204.

<sup>89</sup> *Ibidem*, 324.

their borders and prioritize taking care of ecological territories with the actors involved beyond shortcoming technocratic CO<sub>2</sub> regulations, and the people who hold on to a capitalistic and liberal ideology must learn what the consequences of their actions are and start to take responsibility for them. Indeed, the New Ecological Regime must be taken seriously and naming this era the Anthropocene is a good suggestion for reminding people of their ecological actions.

However, I do not think Latour's militant approach will get us anywhere, for several reasons. First of all, the myth of an apocalypse is an exaggeration: we do not find ourselves in an apocalypse right now, otherwise it would not be a myth. Also, the entire enterprise of redistributing territories of nation-states into earth-bound ecological territories with the appropriate actors, which is then again linked to a myth of an apocalypse and to a contested naming of the current era as the Anthropocene, and tying some kind of war between newly defined groups of actors: not only is it impossible and implausible, it is above all a bad idea. In general, waging war will not get us any further, since destruction is one of the main characteristics of war. Latour's purpose of dividing the sovereignty and distributing it over more ecological actors is problematic, even without waging wars, simply because the entire world power balance is based on a division of nation-states and their ultimate dependence on their sovereignty. Undermining such a balance by redistributing sovereignty over different ecological actors and territories through war seems to be megalomaniac. Granting other ecological actors sovereignty is also problematic, since it is anthropocentric in two ways: the sovereignty must be granted by humans, and since sovereignty is a human political affair, this sovereignty must also be defended by humans. This hardly seems like an ecological solution.

Nonetheless, Latour is right in claiming that more ecological actors must be acknowledged and helped, one way or the other. However, instead of achieving this goal by means of dangerous myths and wars, I would argue for a less dangerous, soft, and more ecological approach. It is not necessary to wage war with different peoples if they refuse to realize that they are destructing the earth with certain ecological behavior. People can be convinced in all sorts of ways: a powerful method is creatively triggering the imagination, as we shall see in the next chapter with Donna Haraway. I believe that the best solution to achieve this can be found in Haraway's different methods of staying with the trouble, learning how to think, remember and visit, to train one's mind, to remain curious, and to render each other capable, becoming response-able in multi-species flourishing. What all of these concepts and phrases entail, I shall further elaborate at the end of this chapter and in the following chapter. First, I shall explain Haraway's position here and defend why I deem her attitude of learning how to stay with the trouble gives the best option to live ecologically responsibly out of the three attitudes described in this chapter.

### **'THINK WE MUST'**

Donna Haraway pleads for a radically different approach. She advocates for not only human beings, but also other organisms such as fungi, plants and animals (which she all denotes as 'critters' of this earth) to learn how to stay with the trouble, together. Staying with the trouble entails an acceptance of the disastrous situation and difficult times we are in, without any recourse to a giant enemy called

IWC and or to a war declaration against ecological enemies. Instead, Haraway calls for learning how to cope with the New Ecological Regime by experimenting with new ways of living that include all kinds of critters – not genocidally exterminating them as is now the case. Accepting this disastrous new reality also entails learning how to live with its dangerous consequences such as climate refugees fleeing from droughts and rising sea levels, but also the migration of all kinds of flora and fauna species that are becoming increasingly entangled within urban environments. However, accepting this new reality, which Haraway proposes to call the Chthulucene (which I shall explain in the next chapter), does expressly not mean to accepting the myth of the apocalypse. Instead, Haraway describes these troubling times as follows:

These times called the Anthropocene are times of multispecies, including human, urgency: of great mass death and extinction; of onrushing disasters, whose unpredictable specificities are foolishly taken as unknowability itself; of refusing to know and to cultivate the capacity of response-ability; of refusing to be present in and to onrushing catastrophe in time; of unprecedented looking away. Surely, to say “unprecedented” in view of realities of the last centuries is to say something almost unimaginable. How can we think in times of urgencies *without* the self-indulgent and self-fulfilling myths of apocalypse, when every fiber of our being is interlaced, even complicit, in the webs of processes that must somehow be engaged and repatterned?<sup>90</sup>

Seemingly simply Haraway argues that we must learn how to think again in these dangerous times. Learning how to think and myths about an apocalypse are in her view mutually exclusive. According to Haraway, the myth of a coming apocalypse could become a self-fulfilling prophecy since it encourages thoughtlessness: if the world is coming to an end, there seems to be no point in establishing and cultivating relations with and in it, together with all its critters. In that same line of argument Haraway speaks of urgencies instead of emergencies in order to avoid apocalyptic thinking and to stay in the present times, being thoughtful of the relations we have in this world. At the other side of the spectrum, Haraway takes on Hannah Arendt’s description of Eichmann as a thoughtless person which (thoughtlessness also characterized by Haraway as immateriality and inconsequentiality), thinking only of ‘assessing information, determining friends and enemies’ and practicing ‘business as usual.’<sup>91</sup>

‘Think we must; we must think.’<sup>92</sup> Haraway conveys this message over and over again in her book, and in a way it resembles the difficulty of describing her way of coping with the New Ecological Regime. The act of thinking and being thoughtful cannot be explained easily – in contrast with for example embracing the myth of an apocalypse. Being thoughtful entails many things, such as training the imagination, being curious, learning how to visit, but also becoming response-able, telling, remembering and inventing new stories, and related to that learning how to live, die and remember

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<sup>90</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 35.

<sup>91</sup> *Ibidem*, 37.

<sup>92</sup> *Ibidem*, 47.

the deceased and extinct. Her philosophy can be described as sensible materialism, which boils down to for example understanding how we become-with other species. Haraway's biological background prominently seeps in through her ecological philosophy, which strongly distinguishes her from Guattari and Latour. She accordingly describes her way of thinking as tentacular thinking, which entails thinking-with, or in other words, 'to stay with the naturalcultural multispecies trouble on earth' with which she aims to enable 'multispecies flourishing on earth.'<sup>93</sup>

The way in which to think and how to stay with the trouble, is by telling stories. In her book, Haraway tells various stories about the entanglement and interdependence of multiple species on various locations on earth, often but not always including humans. These stories are thus not only about multiple species and their entanglement; they are also made possible by virtue of these entanglements. In this sense, multiple species render each other capable by living together or enabling each other (which Haraway calls symbiosis and sympoieses), and consequently together become something different through these interactions. The stories Haraways tells are stories of ongoingness, resurgence and remembrance and take place in the past, present and future.

## CONCLUSION

In the next chapter I shall explain more extensively what Haraway's philosophy entails and consists of. For now, it is important to determine her approach to coping with the New Ecological Regime. As mentioned in the beginning of this chapter, Latour, Guattari and Haraway have a lot of similar ideas in their ecological philosophies; I therefore lay the emphasis on the differences between them. Where Latour emphasizes the myth of the apocalypse, Haraway rejects this idea and propones stories. Not just any stories; SF stories. SF stands for string figures (tentacular thinking in practice), speculative fabulation, speculative feminism and science fiction. According to Haraway, 'we relate, know, think, world and tell stories through and with other stories, worlds, knowledges, thinkings yearnings'<sup>94</sup> and 'It matters what thoughts think thoughts. It matters what knowledges know knowledges. It matters what relations relate relations. It matters what worlds world worlds. It matters what stories tell stories.'<sup>95</sup> Latour, Haraway and Guattari all three emphasize the importance of the imagination, creativity, activity, transversality and singularity in their own way, which I shall explain in the next chapter when discussing Haraway's ecological philosophy. In the light of Haraway's previous quote, it is therefore all the more important how these concepts are advocated.

I prefer Haraway's approach over those of Latour and Guattari, since her ecological philosophy is most thoughtful: she strongly repeals megalomaniac ecological solutions such as the apocalyptic and techno-optimistic approaches, but really zooms in on certain local ecologies with their own troubles and stories, and researches how these small-scale examples can contribute to staying with the ecological troubles of our time. Latour, throughout his book, mainly focuses on finding the

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<sup>93</sup> Ibidem, 40.

<sup>94</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 97.

<sup>95</sup> Ibidem, 35.

strongest political arguments on how to deal with the New Ecological Regime. The myth of the apocalypse which he needs for this purpose is dangerous in itself; the war he proposes even more so. I agree with Haraway when she argues that apocalyptic myths invigorate thoughtlessness which absolutely will do more harm than good in finding ways on how to cope with these dangerous times of the New Ecological Regime. In the same sense, Guattari's techno-optimistic approach and his focus on the destiny of humanity are in my opinion more part of the problem than part of the solution. I am not saying that technological solutions should be avoided. On the contrary, I agree with Guattari that in the New Ecological Regime the machinic ecology is a huge part of the environmental ecology – even though renaming the environmental ecology the machinic ecology would be an exaggeration. However, when Guattari suggests a 'pursuit of mastery of the mechanosphere' will become a necessity, I believe that he still relies too much on Man and his Machine mastering Nature. If Guattari indeed proposes an ecological ethics, I think that Man's attempt at mastering nature should be avoided in this ethics.

Instead of attempting to technologically solve the ecological troubles of the New Ecological Regime with the same militant vigor that caused it in the first place (which will probably create more problems than solve them), we must learn how to stay with the trouble we have caused. Staying with the trouble does not entail to do nothing, nor does it imply to find large-scale ecological solutions. Instead, staying with the trouble is an attitude that consists of investigating ecologies and ecosystems, finding out what their stories, troubles, uniqueness, relations and histories are, and how to assure that they keep on existing and perhaps start flourishing (again). It entails accepting that there are no large-scale fixes, no short-cuts, and no one-size-fits-all solutions. Staying with the trouble means exploring the stories of specific ecologies and figuring out how to enable their ongoingness, i.e. how they might escape destruction, resist disasters, and come up for their rights. Therefore, Haraway argues that staying with the trouble asks for new ways of living, including making string figures, thinking tentacular and becoming response-able. These are stories and practices which are urgently needed in these troubling times. At the moment these practices are lacking, causing a lack of ecological understanding and xenophobia for species and lifeforms which are different. Learning how to stay with the trouble entails an acceptance of the responsibility for the trouble we are in, for which we are now in desperate need. I believe that Guattari and Latour still have a problem with accepting responsibility for the trouble we are in and therefore try to fix or combat it. Surely resistance is necessary. However, Haraway can show us the way of resistance that is thoughtful of the cause it is protecting: the habitability of the entire planet we all live in.

## Chapter 5 Staying with the Trouble

The results of the sustainable design labs in which people could participate during the conference 'Sustainability: The Next Level' have been gathered in a document and handed over to the Executive Board of the Erasmus University. In the final meeting between the University Council and the Executive Board, the Executive Board was asked what it was going to do with the output of the conference. Unexpectedly the president answered that next to the planned six pillars of the new strategy of the university for the coming five years, the theme 'sustainability' will be added as a seventh pillar due to the conference. The output of the conference will be used as input for the new strategy. The further development and elaboration of the university's next strategy will take place in the course of the next academic year.

In this chapter, I will answer the question how philosophy can contribute to dealing with the trouble we are in. I will answer this question through a discussion of Haraway's book: 'Staying with the Trouble.' In order to do so, I shall explain Haraway's philosophy by analyzing her work from Guattari's conceptual framework. This explanation shall therefore consist of the concepts which I have explained in the third chapter: subjectivity, singularity and transversality. I develop my own conception of transversality in this chapter, which is compatible with its usage in the three respective works. I understand transversality as the creative production of subjectivities by means of interactions between living beings and the environment

The framework presented here allows me to coherently expand on Haraway's different concepts, while in the process being able to compare where she stands compared with Guattari. It shall become clear that the psychoanalytic, the scientific anthropological and the artistic biological philosopher do not stand that far apart from each other when comparing their ecologies. In the end, I shall argue that what I have done in this chapter and throughout this thesis is an example of how philosophy can contribute to staying with the trouble, namely by systematically analyzing different viewpoints on a level playing field. I shall argue that the philosophical contribution consists of the combination of imagination with systematical reflection. This last point is also exactly what is lacking at the Erasmus University at the moment, and I shall propose a philosophy for the new strategy at the end of this chapter.

### SUBJECTIVITY

For the reader who is familiar with Haraway's, it might seem odd to analyze her work with the Guattarian concepts of subjectivity, singularity, and transversality. Admittedly, Guattari uses those concepts in a very specific and peculiar way, which became clear in the third chapter. Adding on to that, Haraway's biological background and Guattari's psychoanalytic background seem to lack a certain common ground. Even though both draw different concepts from different sources of different scientific disciplines, they unexpectedly have a lot of overlap. What is more is that at this point in this thesis, this comparison shall offer more insight in both philosophies. For gaining a better and systematic understanding of Haraway, I find the concepts of subjectivity, singularity, and transversality to be very useful in order to explain her philosophy. As shall become clear, these concepts attain a

richer and different meaning when used to explain Haraway's philosophy. Also, it is difficult to find an adequate structure for explaining Haraway's philosophy, since she herself describes her philosophy as being an infectious hot mess, and herself as a tentacular thinking compostist. That being said, it is important to remark here that this comparison also has an inevitable consequence which the reader must keep in mind, namely that this conceptual dance will infect/effect/affect the interpretation of both philosophies.

### **SUBJECTIVITY AS CONCEPTUAL FIELD**

The reason why I start off with subjectivity, is that subjectivity is the ontological field which Guattari, Haraway, and Latour in broad terms agree upon. I have already briefly mentioned that they are all three philosophers that adhere to materialism, or sensible materialism to be more precise. Latour's sensible materialism expresses itself in his love for the Gaia theory, a theory which strongly relies on the presupposition that matter is active, bears agency, and therefore is in fact a subject, or at least possesses the property of subjectivity. According to Latour, the property of altering the environment is a property shared by every living being.<sup>96</sup> It must be pointed out here that Latour's version of sensible materialism thus grants subjectivity to every living being and extends the concept of living beings in such a way that matter itself becomes alive: organisms alter the environment, an environment which is then altered in such a way that it in its turn creates favorable conditions for life to flourish in. Therefore a rigid delineation between organism and environment, active and passive, matter and living being becomes impossible in sensible materialism.

In Guattari's version, subjectivity runs through the environmental, social and mental ecologies. In a way, this also holds for Latour and Haraway, even though they do not explicitly mention these specific ecologies. In order to get a hold again of Guattari's notion of subjectivity, Genosko's explanation of this notion is useful here:

Subjectivity is a group phenomenon. It is completely deindividuated and depersonalized and ecologized, a consequence of foregrounding the social environment of the institution. There are different kinds of subjectivity, but they are always part of the group. Subjectivity involves, then, non-predetermined interrelations, non-linear and non-logical 'evolution', and the production of differences.<sup>97</sup>

This corresponds with Guattari's description of eco-logic being 'a logic of intensities, of auto-referential existential assemblages engaging in irreversible durations.' These descriptions of eco-logic and the ecologization of subjectivity correspond with Haraway's biological compostist philosophy of symbiosis, sympoiesis and symbiogenesis. In fact, Haraway's extensive explanation of different biological phenomena and her criticism on standard biological models prove to be helpful in understanding the above citations. Evolution, for example, when explained in terms of biological

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<sup>96</sup> Bruno Latour, *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*, 146.

<sup>97</sup> Gary Genosko, *The Life and Work of Félix Guattari: From Transversality to Ecosophy*. 55.

processes is much better understandable than when it is mentioned by itself in a philosophical discourse.

Haraway takes over the term *sympoiesis* from environmentalist M. Beth Dempster as a concept which problematizes individuated biological models that presuppose self-organizing individual units.<sup>98</sup> Dempster defines sympoiesis as "collectively-producing systems that do not have self-defined spatial or temporal boundaries. Information and control are distributed among components. The systems are evolutionary and have the potential for surprising change."<sup>99</sup> Where Dempster uses this term as a new perspective for systems as opposed to autonomous and self-organizing systems, Haraway argues that sympoiesis also undermines the legitimacy of individuated biological models. Haraway's argumentation is that since different organisms, bacteria, cells and viruses together compose more complex organisms which might be perceived as individuals, but in fact are a result of interactions and symbioses of an innumerable amount of creatures. Haraway calls such entities *holoents* or *holobionts*, which literally translated means "whole beings", but also simply critters: "Critters interpenetrate one another, loop around and through one another, eat each another, get indigestion, and partially digest and partially assimilate one another, and thereby establish sympoietic arrangements that are otherwise known as cells, organisms, and ecological assemblages."<sup>100</sup> Any individuated biological model (a frog for example) is therefore methodologically faulted, since sympoiesis entails that every biological entity is composed of the interaction and entanglement with other entities, and thus cannot be accurately analyzed separately.

Taking this a step further, Haraway uses Lynn Margulis' concept of symbiogenesis in order to describe entire systems, including humans, stories, and scientific apparatuses. Margulis, an evolutionary theorist who together with James Lovelock invented the Gaia theory, defines symbiogenesis as a process which results out of symbiosis: 'new *kinds* of cells, tissues, organs, and species involve primarily through the long-lasting intimacy of strangers.'<sup>101</sup> Haraway's own striking example of a symbiogenetic process is that of the Hawaiian bobtail squid and its bacterial symbiont, which together become a luminescing squid which 'can look like a starry sky to its prey below on dark nights, or appear not to cast a shadow on moonlit nights.' This symbiogenetic process is dependent on many factors, such as the squid already becoming infected by the bacteria in an early specific moment during its development, so that later it will be able to house the luminescing bacteria. In a self-reflexive movement, Haraway remarks that this sympoietic collaboration in its turn is dependent on a specific scientific collaboration:

The sympoietic collaboration of squid and bacteria are matched by the sympoietic string figures across disciplines and methodologies, including genome sequencing, myriad imaging technologies, functional

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<sup>98</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 61.

<sup>99</sup> M. Beth Dempster, "A Self-Organizing Systems Perspective on Planning for Sustainability" (MA thesis, University of Waterloo, 1998).

<sup>100</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 58.

<sup>101</sup> *Ibidem*, 60.

genomics, and field biology, which make symbiogenesis such a powerful framework for twenty-first-century biology.<sup>102</sup>

Haraway emphasizes the importance of these and other kinds of collaborations throughout her work, collaborations which she calls string-figures: between animals and bacteria, between scientists and symbionts, between artists, scientists, and animals, and so forth. In the same line, Haraway expands this notion of symbiogenesis in order to include what she calls science art worldings for staying with the trouble. I shall address this point later on in this chapter, when discussing transversality.

Subjectivity takes on a collaborative, symbiogenetic character with Haraway, with an even stronger emphasis on the 'environment', which actually consists of different organisms that have and with which we have symbiotic, sympoietic and symbiogenetic relations. Indeed, subjectivity under Haraway remains an ecologized, depersonalized, deindividuated, group phenomenon. However, Haraway strikingly shows exactly how far the concept of subjectivity might reach. Here Guattari's evolutive character of subjectivity takes on a different and more biological meaning, extending its scope to include the tiniest sympoietic organisms.

Subjectivity, then, is also intimately connected with singularity in the ecologies of Haraway and Guattari. In fact, in the following quote, Guattari's heterogenesis can be easily understood in terms of Haraway's notion of symbiogenesis, taking very literally what it means to become-with other beings. Genosko explains that:

Guattari defines heterogenesis as 'processes of continuous resingularization' (p.45). It is an active, immanent singularization of subjectivity, as opposed to a transcendent, universalizing and reductionist homogenization. Heterogeneity is an expression of desire, of a becoming that is always in the process of adapting, transforming and modifying itself in relation to its environment.<sup>103</sup>

Guattari's heterogenetic expression of desire, as explained in the quote above, looks awfully lot like the desires which are at stake in symbiogenesis: 'Getting hungry, eating, and partially digesting, partially assimilating, and partially transforming: these are the actions of companion species.'<sup>104</sup> Not only the desire, but the definition of heterogenesis seems to be the philosophical equivalent of symbiogenesis. Symbiogenesis, then, can be defined as the immanent singularization of subjectivity, as opposed to homogenization. Symbiogenesis' immanent singularization of subjectivity can be understood as the assimilation and transformation of singular companion species; processes of continuous resingularization. Animals, organisms, cells, bacteria: they continuously become something different. That is why Haraway defines to be animal as to become-with bacteria, for it is this symbiogenetic interdependence that forms a necessary precondition for an animal to have evolved into what it is now, and for simply being what it is at each moment.

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<sup>102</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 66.

<sup>103</sup> Félix Guattari, *The Three Ecologies*, 105n. 49.

<sup>104</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 65.

## SINGULARITY

For Latour, Guattari, and Haraway, singularity is what is at stake here. In the New Ecological Regime, singularity is being threatened in all sorts of ecologies. In the biological and environmental ecology, singularity of flora and fauna species are in danger worldwide. The deforestation of rainforests, acidification of the oceans, agricultural monoculture, air pollution, global warming, melting of permafrost, the continuous extinction of all kinds of flora and fauna species in favor of the proliferation of a few: all of these events are signs of a depletion of environmental and biological singularities. Instead of singularization and resingularization, Latour, Guattari and Haraway, see a general trend of homogenization in these and the other ecologies. As already mentioned in the third chapter, Guattari warns his audience for the homogenization in especially the social and mental ecologies, which according to him are mainly threatened by the deathly repetitions of IWC which produce seriality rather than singularity. In the mental ecology, people become passive consumers through IWC's brainwashing mechanisms through mass media. In the social ecology, Guattari points out the serial subjectivities produced by IWC, namely the worker, the elite and the uninsured. Haraway on her account repeatedly emphasizes the singularity of the refugee, human and non-human: a kind of singularity that Western societies increasingly want to get rid of by denying them any refuge.<sup>105</sup> As Guattari already warned us, demands for singularity can also result in a rise of nationalism when media friendly populists rise up and offer voters a nationalistic, protectionist, xenophobic, singularity (which is actually a form of identity politics based on the exclusion of singularity, of everything that and anybody who is different).<sup>106</sup>

That is why Latour, Guattari, and Haraway all advocate the enhancement of singularity, each in their own way, in order for each of their ecologies to thrive and flourish. All three have different ways in achieving this, and different emphases on different kinds of singularity. We saw in the second chapter that Latour aims to protect singularity of entities in a political way, by handing over the sovereignty of nation-states towards different territories, with their own terrans, granting a multiplicity of actors political representation. This indeed makes more sense than granting nations with arbitrary borders sovereignty. For his part, Guattari advocates for a creative form of singularity by creating new subjectivities through the use of transversality, that is, through an adjustment of the interaction between the group and the institution. Recall the examples I used in the third chapter of Rotterdam Skillcity, where the concept of transversality is used to question and transform the institutions of the lower schools in order to transform the group subjectivities in such an ecologically positive way. That is, in a way in which social, cultural, and economic ties are strengthened in order to create a healthy environment for kids to flourish in, enabling them to access creative and singular subjectivities.

Even though Haraway and Latour do not explicitly use these Guattarian concepts, Haraway's work does correspond with Latour and Guattari's ecological efforts of finding singularities and using

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<sup>105</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 100.

<sup>106</sup> For the references to Guattari, see chapter 3 of this thesis.

the concept of transversality in order to hopefully make these singularities flourish. Haraway emphasizes that in these dangerous times the focus in first instance should be on enabling ongoingness, which consists of either a continuation of existing, healthy ecological relations, or of resistance against destructive actors or forces, or of enabling resurgence of damaged ecologies. A focus on achieving ongoingness in the first place will perhaps in a later stage enable what Haraway calls 'multi-species flourishing.' Haraway's main purpose in her book is making kin, which is analogous to Guattari's processes of singularization. Guattari's processes of singularization consist of creating new, irreducible forms of subjectivity, irreducible to any homogeneous or serial subjectivity of for example mass media, large scale monocultural agriculture or universal teaching material. In the same fashion, making kin entails to engage into relations with Earth Others, all kinds of critters of the earth including humans. The establishment of relations with what is different, with the Other, in this sense corresponds with processes of singularization. However, these relations must be other than the traditional bio-genetic relations people have with their normal kin based on ancestry or genealogy.<sup>107</sup> Haraway explains that:

Maybe, but only maybe, and only with intense commitment and collaborative work and play with other terrans, flourishing for rich multispecies assemblages that include people will be possible. I am calling all this the Chthulucene—past, present, and to come.<sup>108</sup>

Making kin is Haraway's purpose, because making kin is essential in order to make a flourishing of all different species and organisms on earth possible again, including human beings. According to Haraway, one of the ways in which to make kin is by making string-figures and engaging in tentacular thinking. A crucial aspect of making kin is its imaginative part: making string-figures entails telling, creating and remembering stories. Haraway associatively uses the abbreviation SF to refer to not only making string-figures, but also to science-fiction, science fact, science fantasy, speculative fabulation and even speculative feminism.<sup>109</sup> In the same fashion, Haraway proposes to name our current era the Chthulucene; the etymology of which Haraway on purpose made traceable to myriad names, such as the spider *Pimoida Chthulhu*, multiple versions and faces of Gaia, the Gorgons, and the chthonic ones, meaning "of, in, or under the earth and the seas."<sup>110</sup> Haraway's main message: we are desperately in need of many stories, not one myth, we are in need of cultivating relations with life and death by for example remembrance, we need to learn how to go visiting, and create, retell, and remember SF's.

Thinking according to Haraway entails to learn how to go visiting. What this means becomes clear in Arendt's words, whom is quoted by Haraway: 'To think with an enlarged mentality means that

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<sup>107</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 102.

<sup>108</sup> Ibidem, 101.

<sup>109</sup> Ibidem, 10.

<sup>110</sup> Ibidem, 53.

one trains one's imagination to go visiting.<sup>111</sup> Haraway not only advocates to go visiting with the imagination, but stresses in same line as Vinciane Despret to go visiting with one's entire being. Haraway argues that this 'curious practice' is needed in order to think-with other beings. She takes over Despret's virtue of politeness as the correct attitude to go visiting, to act out one's curiosity.<sup>112113</sup> When visiting other critters, both visitor and visited can become response-able, which is a necessary precondition for making string-figures. Becoming response-able entails that one can engage in string-figuring; one has to be able to respond to the other one holding the string, in order to create a string-figure. Response-ability is only possible when one is open to the reaction of the other, when one allows the other to respond. Politeness is a virtue which is necessary for such a response.

By engaging in collaborations with other species, humans and non-humans can engage in sympoiesis, symbiosis, and symbiogenesis, can make string-figures together, write new science-fictions and remember old ones, and create new science facts and science fantasies. These collaborations, with what Haraway calls companion species, will in the end hopefully enable multi-species flourishing. In order to gain a better understanding on what this exactly means, I shall explain Haraway's multi-species flourishing by means of Guattari's concept of transversality.

## TRANSVERSALITY

As an ecological concept, I understand transversality as the creative production of subjectivities by means of interactions between living beings and the environment. In homogeneous ecologies, transversality can be seen as a force that makes unrealized potential real. It can transform the entire ecology, and thus the environment and ecological actors, into a diverse, healthy, heterogeneous ecology. Guattari, for example, uses transversality as a conceptual tool that can transform institutions. In the words of Genosko: 'the institutional object is known by means of group subjectivity and the innovative conceptual tool used to pose the question is transversality.'<sup>114</sup> In this case/example, transversality is a concept used to pose the question of what the institutional object is (or what the environment is), which is then again known by means of group subjectivity. It means that transversality as a concept can transform institutions by questioning and consequentially revealing what the institutional object is. In this reflexive movement, the institutional object is foregrounded and then transformed. Guattari has done this with psychiatric institutes, and Henk Oosterling with primary and middle schools, by analyzing and transforming the ecological networks in which pupils, parents, teachers, the buildings and other involved actors were embedded. Oosterling uses transversality as a concept describing the power structures of ecological networks, which can cross through networks

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<sup>111</sup> Hannah Arendt, *Lectures on Kant's Political Philosophy*, (Harvester Press: Brighton, 1982). Quoted in Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene.*, 128.

<sup>112</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 127.

<sup>113</sup> Vinciane Despret, "Sheep Do Have Opinions," in *Making Things Public*, ed. Bruno Latour and Peter Weibel (MIT Press: Cambridge, 2005), 360.

<sup>114</sup> Gary Genosko, *The Life and Work of Félix Guattari: From Transversality to Ecosophy*, 55.

in feedback loops, as opposed to social, hierarchical pyramid structures, which are either horizontal or vertical.<sup>115</sup>

The answer to the question what the institutional object, or the environmental object, or the network is, lies in group subjectivity; a concept of which we have just determined to take on another more biological connotation with Haraway. In the case of Guattari's notion of transversality, the institutional object mainly bears psychoanalytic connotations, in order for him to be able to foreground the psychiatric institute as shaping the subjectivities of the patients. This is a pragmatic approach, focusing less on Freudian family relations of the past, which would shape an individual subject, and more on the impact of the institution, or the environment, affecting group subjectivities. Even though the concept of transversality underwent some changes during the decades Guattari wrote about it, some aspects of it remain unchanged. According to Genosko: 'Transversality still signifies militant, social, undisciplined creativity' and it retained 'its deterritorializing character, its social and political experimentality, and connection with production, especially the production of subjectivity [...]'.<sup>116</sup> In the next section it shall become clear that these aspects of transversality coincide perfectly with Haraway's notions of multi-species flourishing and science art worldings.

These explanations allow me to remain pragmatic here as well; although the history of the concept must be understood in a complex psychoanalytical context of which I have a meager amount of knowledge, I am convinced that the concept of transversality, when removed of these connotations, can help us here in gaining a better understanding of Haraway. The relation which organisms have with their environment, and the understanding and perception of that environment, determines the references 'by means of which subjectivity enunciates itself.' In this interpretation, transversality comes down to a creative interaction between organisms and their environment. This corresponds with the shifted meaning of the concept of transversality in Guattari's later collaborations with Deleuze, where transversality is understood as explicitly being 'a creature of the middle', 'the potential space,' and 'a space in which becomings are truly creative – radically open and simply not what is now actual.'<sup>117</sup>

The notion of transversality is therefore useful in learning how to cope with the New Ecological Regime, because it is an ecological concept that can be used across different disciplines. As a tool it can help transforming ecologies by first questioning and mapping them, and subsequently transforming them into healthy ecologies with strong relationships between the different actors composing them. Coping with the New Ecological Regime asks for the healing and strengthening of ecological relations; transversality is the potential within the ecological networks that must be realized in order to make them flourish, to symbiogeneously invigorate singularities within those networks, making them diverse and letting them flourish.

## MULTI-SPECIES FLOURISHING

<sup>115</sup> Henk Oosterling, *Eco3. Doen denken*, 35.

<sup>116</sup> Ibidem, 81-82.

<sup>117</sup> Gary Genosko, *The Life and Work of Félix Guattari: From Transversality to Ecosophy*, 55-56.

Some of Haraway's concepts become understandable with the background of the concept of transversality in mind (and vice versa). Think about some of the concepts which have been discussed or mentioned thus far: symbiogenesis, sympoiesis, string-figures, multispecies flourishing, making kin in the Chthulucene, tentacular thinking and science art worldings. All these concepts are somehow interrelated, but most importantly: they are active, creative, enabling, and they make use of the potential space in which becomings are truly creative. All of these concepts presuppose and are dependent on the involvement of multiple actors being, living, or/and creating together, in an evolutive process in which they become something else; they become-with each other, just like according to Haraway being animal actually means becoming-with bacteria, as we have seen in my explanation of symbiogenesis earlier in this chapter.

Even though I have put the emphasis in my explanation of Haraway on the biological aspect of ecologies (animals, symbionts, organisms, bacteria, and so forth), also with the purpose of explaining Guattari's concepts more, the scope of Haraway's work reaches beyond biology. This brings me to Haraway's last concept which I shall explain in this chapter, which I have already mentioned but not fully explained yet: science art worldings. Science art worldings are collaborative networks between multiple species, sciences, and arts, which Haraway uses as prime examples of new creative ecologies in which new cross-discipline and interspecies relations are made that can stay with the trouble. Science art worldings are not only examples of transversality, but also of all of Haraway's other concepts mentioned thus far. Also, they are examples of string-figures that include and connect sciences, scientists, artists, and symbionts. Last but not least, and most importantly for us, they are prime examples of how to stay with the trouble; by focusing on resurgence of endangered kin and destructed environments, on remembrance of extinct kin and vanished environments, by enabling ongoingness, telling SF-stories, raising awareness, and transversally generating singular subjectivities.

Science art worldings aim to enable multi-species flourishing by focusing on ongoingness. The concept of science art worldings is best explained by analyzing one of the numerous examples Haraway describes in her book. Here I shall discuss the science art worlding of PigeonBlog, a project initiated by Beatriz da Costa in 2006.<sup>118</sup> PigeonBlog is a science art worlding; an experiment which combines science, art, technology, people and in this case, pigeons. It is a collaboration between "homing pigeons, artists, engineers, and pigeon fanciers engaged in a grass-roots scientific data gathering initiative designed to collect and distribute information about air quality conditions to the general public."<sup>119</sup> Haraway explains that the collected data "were intended to provoke, motivate, amplify, inspire, and illustrate, not to substitute for or surpass professional air pollution science and monitoring. These were data produced to generate further imaginative and knowing action in many domains of practice."<sup>120</sup>

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<sup>118</sup> See Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 20-29.

<sup>119</sup> Beatriz da Costa, "PigeonBlog", p. 31. In "Interspecies." Special issue. *Antennae*, no. 13 (summer 2010): 31-48. <http://www.antennae.org.uk/back-issues-2010/4583475279>

<sup>120</sup> Donna Haraway, *Staying with the Trouble. Making Kin in the Chthulucene*, 21.

A common characteristic of these science art worldings is the transversal transformation between different organisms and the environment through a sympoietic collaboration between humans and non-humans, and between scientific and artistic disciplines. These science art worldings combine arts and sciences in order to produce knowledge that speaks to the imagination. Artists, citizens and scientists that were engaged in PigeonBlog crafted specific electronic devices for pigeons to carry, in order for the pigeons to be able to measure air pollution throughout entire cities. The public could track the pigeons in real-time and were able to derive from the flight lines of those pigeons how polluted specific streets of their city are. The general public gaining such specific knowledge on a sensitive subject immediately makes the project political as well, because they learn for example that the areas where poor people live are generally the most polluted. At the same time, there is a form of symbiogenesis at play here: pigeons become artistic activists and data collectors, while the project's artist-researches learned how to interact with the pigeons with help of the pigeon fanciers, together training the pigeons to carry devices and follow specific routes. Through these collaborations, participants became something different. In the words of Haraway: "All the players rendered each other capable; they "became-with" each other in speculative fabulation."<sup>121</sup>

This project shows how pigeons can become companion species, while often despised as being flying rats. Haraway elaborates that pigeons become different in every different string-figure pattern. For example, throughout history pigeons have been spies, rescue workers, messengers, but also carriers of diseases. For Haraway it is crucial that these stories are told, retold, remembered, invented and reinvented, because it reminds people of how people and their companion species make histories together, and because these stories are critical for caring about flourishing.<sup>122</sup>

However, even though I mostly follow Haraway's attitude and her ecological philosophy, this does not mean that her work is without flaws. In fact, on one point Haraway's view might prove out to be more dangerous and unfruitful than the points I have addressed in the previous chapter in my critiques on Latour and Guattari. This dangerous viewpoint is summarized in one of Haraway's slogans in her book: 'Make kin, Not Babies!'<sup>123</sup> Haraway advocates this slogan, because she regards the size and growth of the human population to be one of the biggest contemporary ecological challenges. This indeed might be the case, but it is also not entirely true, since an even bigger ecological problem is the ecological behavior of rich (mostly Western) people. An example that nicely illustrates this point is flying. Since the last few decades, flying has become increasingly accessible for people with lower incomes, although on average still only for people with a minimum standard wealth, which is much higher in rich and developed Western countries than in underdeveloped Third World Countries. Not only is flying incredibly disastrous for the environment; it is also an exclusive privilege for those who can afford it. The point I want to make here is that by picking the size of the human population as a

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<sup>121</sup> Ibidem, 22.

<sup>122</sup> Ibidem, 29.

<sup>123</sup> Ibidem, 102.

main ecological threat to these times, Haraway puts the biggest blame and responsibility for the New Ecological Regime in the shoes of the countries with the highest absolute or/and percentile population growth, which mostly happen to be non-Western development countries. However, the ecological lifestyle of poor people in Third World countries is actually far more desirable than the lifestyle of rich Western consumers.

In this way, Donna Haraway contributes to the Western hypocrisy in the ecological debate by taking on the size of the human population as a main contributor to ecological disasters. This actually implies that the rich Western countries with low birth-rates are ecologically and therefore morally superior towards development countries with high birth-rates. However, being born is not a sin, neither is having many children when living in bad circumstances with low wages. Instead, people should be held responsible based on their ecological lifestyle. The dangerous part of this hypocrisy is that it displays a moral superiority of West versus rest, which is destined to make more enemies through polarization in the ecological debate, whereas ecological mutual understandings and agreements are desperately needed in these troubling times.

## **CONCLUSION**

What then, does philosophy contribute to staying with the trouble? What does philosophy contribute to facing the trouble we are in? In this chapter, and throughout this thesis, I have aimed to answer that question simply by 'doing' philosophy. In this chapter, I have attempted to explain essential elements of Haraway's philosophy by analyzing it with key concepts of Guattari's ecological philosophy, while simultaneously attempting to offer a better understanding of his own philosophy. Next to that, I have sporadically mentioned some elements of Latour's ecological philosophy where I found it useful for gaining a reciprocal understanding of his philosophy and the concept which I was explaining during that moment. Since I have aimed in this chapter to show how philosophy contributes to staying with the trouble, it is time to take a meta-perspective and reflect on what I have done.

## **SYSTEMATIC REFLECTION**

A crucial aspect of philosophy which contributes to the trouble we are in, is its systematic reflection. A philosophical approach allows one to reflect on different attitudes and their presuppositions, as we have seen in the previous chapter. However, a systematic reflection is based on more than problematizing attitudes and revealing presuppositions. In this chapter I have attempted to engage in a systematic reflection by constructing a level playing field which allowed me to compare three ecological, materialist philosophers with backgrounds from different disciplines on an ontological level. I have done this by making use of three key concepts which I recognized as useful tools for the execution of a systematic reflection, which will finally enable me to construct my own position within this framework.

The concepts of subjectivity, singularity, and transversality, are related to certain standpoints which Latour, Guattari, and Haraway in broad terms agree upon. Subjectivity must be broadened, understood in such a way that it includes the interaction with the environment and other beings;

singularity, that which is different, must be protected, encouraged, enabled, flourish, in order for subjectivities to remain rich and heterogeneous rather than homogeneous; transversality, the potential space between subjectivities and between subjectivities and the environment, must be creatively made use of in order to make heterogeneous subjectivities flourish, in order to invigorate damaged ecologies of the New Ecological Regime.

In this chapter and throughout this thesis I have shown the different emphases each of the philosophers put on these three concepts, and also the different ways in which they visualize the realization of those concepts. It must also be mentioned here that these concepts attain different meanings when used differently. Guattari uses these concepts with a main emphasis on psychoanalytic aspects. Latour's main suggestions for realizing the points mentioned above are of a political nature. Haraway mainly dives in collaborations and symbioses with different biological species, while putting a strong emphasis on arts and storytelling. These concepts therefore have the ability to cross boundaries and disciplines while maintaining a consistency between them. This creative conceptual deployment is only possible by another crucial aspect of philosophy: the use of the imagination.

### **IMAGINATION**

The use of the imagination allows philosophers to construct ideas and concepts such as the above that have the ability to alter one's relation to the world and oneself. This much becomes clear with the attempts we have seen of broadening the conception of subjectivity in such a way that it becomes depersonalized and ecologized. Also, philosophy can make use of the imagination in order to connect different scientific and artistic disciplines with actual ecological troubles and combine them into a coherent story. We have seen these examples in the science art worldings described by Donna Haraway, in for example Pigeonblog, but also in Latour's mystification of science with the Gaia theory.

Donna Haraway emphasizes the importance of the imagination when she claims with Arendt that one must train one's imagination to go visiting in order to think with an enlarged mentality. This is also exactly how Haraway trains the imagination of her readers; by telling stories of unknown creatures, places, troubles and collaborations. How better to train one's imagination than through storytelling? In a similar attempt, Bruno Latour sparkles the imagination of his audience by telling the myth of the Apocalypse during the Anthropocene, with Gaia as his main character. The imagination is also what Félix Guattari wants to stimulate in his plea for subjectivities to become creative and singular again. It is only with the combination of the imagination and systematic reflection that by making use of transversality expanded, singular subjectivities will be able to flourish together in these dangerous times.

Perhaps even more important of these philosophical uses of combining systematic reflection with the imagination, is that they make ecological philosophy possible. We have seen in the works handled in this thesis prime examples of ecological philosophy that are able to criticize and transform any scientific discipline in such a way that it contributes to keeping the earth habitable by invigorating ecologies and ecosystems. We have seen ecological examples of psychoanalysis from Guattari,

biology from Haraway, and anthropology from Latour. The strength of ecological philosophy lies in the ability to transform these disciplines through the application and radical implementation of ecological principles, which is only possible by means of philosophical reflection. This ecological transformation of scientific disciplines is not confined to those mentioned above – instead, most scientific disciplines can be ecologized in a similar fashion. A few examples are the circular economy, areas of law such as corporate responsibility or environmental law, sustainable business administration, green finance, and so forth. Ecological philosophy is thus not confined to any specific discipline, and its strength lies in the transformation of different disciplines in order to make ecologies thrive through the philosophical combination of systematic reflection and imagination.

#### **RECOMMENDATION FOR THE ERASMUS UNIVERSITY: KEEPING THE EARTH HABITABLE.**

My recommendation for the Erasmus University, and also for the city of Rotterdam, follows directly from my conclusion. It is crucial to systematically reflect upon what the New Ecological Regime exactly entails, and on how to cope with this New Ecological Regime. At the moment, this systematical reflection is lacking, but desperately needed in order to keep the earth habitable. This is clearly visible in the new coalition agreement which the municipality of Rotterdam recently agreed upon; even though Rotterdam is ambitious in its attempt to realize a sustainable energy transition, it fails to look further than the topic of energy.<sup>124</sup> All the other aspects of the problems of the New Ecological Regime are not addressed, which means that nothing is being done which could enable the ongoingness of the lives of critters on Earth. In its direct environment, only the problem of CO<sub>2</sub> emissions is being ‘tackled,’ while failing to be response-able to all critters.

I realize that this is a lot to ask for, and even though being thoroughly invested in this subject the entire year, I still do not have the answers. Therefore, it is necessary to make use of the imagination in order to learn how to become response-able with all critters, at least in the direct environment. Training the imagination entails learning how to visit and creating SF’s. That is why I would recommend that the city of Rotterdam would encourage different institutions to collaborate, in order to create science art worldings that could enable multi-species flourishing. Think about for example collaborations between the art schools Willem de Kooning Academy and Codarts, the universities of Leiden and Delft for the historical, biological and technical skills, the Erasmus University for the economic and business parts, Rotterdam Skillcity, Diergaarde Blijdorp, the Maritime Museum, Stichting Vogelklas Karel Schot, and so much more.

My main message to the Erasmus University and the Municipality of Rotterdam is, simply put: keep the earth habitable for all critters on earth. In other words, together with the help of Latour, Guattari and Haraway, this entails to broaden subjectivities ecologically by transversally stimulating singularity, to avoid homogenization (by for example solely focusing on CO<sub>2</sub>), and to enable multi-species flourishing by creating string-figures and science-fictions through collaborations with all kinds

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<sup>124</sup> Vincent Karremans, Said Kasmi, Judith Bokhove, Barbara Kathmann, Sven de Langen, Tjalling Vonk, *Nieuwe energie voor Rotterdam. Coalitieakkoord 2018-2022*, June 26, 2018, <https://www.rotterdam.nl/nieuws/coalitieakkoord/Coalitieakkoord-2018-2022.pdf>.

of kin. However, this main message is too vague, precisely because it is a general ecosophical message. In order to make this message more concrete, it is necessary to apply this general ecosophical message to the university's different scientific disciplines and transform them. Indeed, a transversal transformation through an ecosophical lens of the university is needed in order to make this vision come true. This entails the experimental transformation of different scientific disciplines in such a way that they can contribute to invigorating the ecologies of their investigation. This transformation is then again only possible if the institute of the university transforms as a whole, including all the ecological actors that compose its network.

In order to do so, it is necessary to openly engage in a collaborative, imaginative, systematical reflection, and to think-with all those who are in trouble, and perhaps let their ecologies flourish again. How else are we supposed to take care of other kin, and let other kin take care of us, if we do not even know how to live with them? We need each other, we learn from them, they need us, and most importantly: we share the same home. As Erasmus said: *'Waar ik mij goed voel ben ik thuis.'* We should make this count, not only for humans, but for all critters on earth.

## CONCLUSION

The aim of this thesis was to find an answer to the question: 'How to cope with the New Ecological Regime?' In order to answer this question, I started out in the first chapter with getting a grasp on the scope of the New Ecological Regime and the possible dangers it contains. Here I have laid out the scope of the ecological crisis, and argued with Bruno Latour that this scope has escalated into a permanent situation instead of a temporary crisis. In light of this New Ecological Regime, together with Latour I have explored several reasons why around the world various peoples, governments and companies nonetheless remain seemingly unalarmed by this troublesome situation. The most important reasons were, firstly, the lack of feedback loops causing a detached worldview, blind to the existence and workings of Gaia. Secondly, I have laid out Latour's religious argument that the relationship of different peoples towards the ecological apocalypse most of the time leads to a distorted relation with the earth, causing them to withdraw from any responsibility to respond to the planet's New Ecological Regime. Even though I disagree with the evocation of an apocalyptic myth, the strength of this religious argument lies in the emphasis on the necessity of the imagination. Without any underlying story behind feedback loops, they are merely information. The use of the imagination and the telling of stories is necessary in order to argue for the value of feedback loops and why one should be sensitive for them in order to take on ecological responsibility.

In the second chapter I went further into depth on the topic of ecological responsibility, answering the question why humankind fails to take on ecological responsibility in coping with the New Ecological Regime. Despite a growing sense of awareness on the New Ecological Regime due to an increasing amount of ecological feedback loops in the form of scientific research, political debates, news coverage, and public attention, different ecological actors fail to take on ecological responsibility. Here it became clear that, notwithstanding the fact that different groups are in fact undertaking ecologically responsible action, these efforts seem to be in vain since the worldwide ecological destruction keeps on increasing. The paramount factor in the failure to undertake significant amount of ecologically responsible action can be attributed to a lack of ecological understanding, which expresses itself in the attribution of activity and subjectivity solely to human beings and of passivity to nature, and which I tried to make visible in my depiction of the debate of the Rotterdam Climate Call. A second reason for this lack of ecological responsibility is the refusal of Moderns to participate in localization, which was next to feedback loops a condition for ecological responsibility. Localization is a necessary condition for ecological responsibility, because it enables ecological actors to belong to a certain ecological territory. Without this sense of belonging, these ecological actors become insensitive towards any notion of ecological responsibility. Thus, feedback loops are important, but the acknowledgement of belonging to an ecological territory is just important to take up ecological responsibility. In an attempt to restore these ecological relations, Latour suggests to revise current political structures and the division of sovereignty in such a way that all sorts of actors and entities that live on the territories in question are somehow politically represented. Even though a redistribution of territories and sovereignty seems to me as entering a political wasteland, the mapping of ecological actors is an invaluable first step for learning how to cope with the New Ecological

Regime, since it can bring the ecological debate a step further by visualizing the different actors involved in the specific ecological issues at stake. Thus, another crucial aspect of coping with the New Ecological Regime is that the different ecological actors are located in their network, so they are enabled to take up ecological responsibility. Without a collective sense of responsibility, coping with the New Ecological Regime will become impossible, and will result in the inevitable acceleration of the current destructive path which has created this situation in the first place.

After having gotten a sense of the main reasons for the inability of all sorts of different actors to act ecologically responsibly, it was necessary to investigate what ecology really is. Based on Guattari's work *The Three Ecologies*, I aimed to get a better understanding of ecological philosophy in order to create a conceptual basis for learning how to cope with the New Ecological Regime. We have seen with Guattari what ecosophy consists of, namely a revaluation of the world through the lenses of the mental, social and environmental ecologies. Ecosophy, love for the earth, our home, Gaia, forms a starting point for ecological responsibility. Analyzing the New Ecological Regime with the methodology of the three ecologies, Guattari offers a clear-cut answer to what he deems to be the main threat to the three ecologies: Integrated World Capitalism. Even though there is controversy around the putting the blame on capitalism, since blaming the predominant economical system will not necessarily bring the debate any further, Guattari's critique on IWC is helpful for gaining a better understanding of complicated ecological issues. It contrasts the obstinate ecological weeds of homogeneity with the more healthy ecological singularities; a topic on which Rotterdam Skillcity could provide us with insightful examples. Furthermore, Guattari's ontological concepts of subjectivity, transversality and singularity offer a conceptual framework of what ecology is, which allowed me to compare Guattari's ecological ideas and standpoints with those of Latour and Haraway.

This comparison took place in the fourth and fifth chapter; in the fourth chapter I compared the different attitudes towards how to cope with the New Ecological Regime; in the fifth chapter I engaged in an explanation of Haraway's philosophy by using the conceptual framework, which I distilled from Guattari's work, while sometimes linking this comparison to Latour where I found it to be elucidating for the understanding of the comparison in general. In the comparison in the fourth chapter on the different attitudes towards the New Ecological Regime, I took the opportunity to offer my critique on the attitudes of Latour and Guattari, and subsequently to argue for why I deem Haraway's attitude to be the most adequate response to coping with the worldwide ecological danger. In addition, I linked attitudes of the three authors to three more general positions in the ecological debate of militarism, techno-optimism and ongoingness. This comparison and evaluation of different attitudes towards the New Ecological Regime was an important step in answering the question how to cope with the New Ecological Regime. Coping with the New Ecological Regime not only asks for a conceptual understanding of an ecological worldview; just as important is determining the most adequate response in this situation based on this conceptual understanding. Especially in the fifth chapter it became clear that there are many conceptual agreements between these different ecological philosophies, but finding the right direction in which these concepts should be used was a research of its own. I argued that Haraway's position was the most adequate, because a focus on

enabling ongoingness coincides most with the ecological principles discovered in the third chapter of the unpredictable evolutive processes of ecologies.

Finally, in the fifth chapter I explained Haraway's philosophy and her concepts by using the concepts of subjectivity, singularity, and transversality, which I took from Guattari's work. These concepts proved to be useful in formulating a coherent explanation of Haraway's philosophy, while in the meantime offering more insights in the Guattarian concepts by means of Haraway's biological concepts and examples. In this chapter I was able to show the similarities and differences between Haraway, Guattari, and Latour, by means of a conceptual comparison. Here it became clear that they all three share the same goal of keeping the earth habitable ecologically, but have different ideas on how to reach that goal. In this chapter I aligned my own position with Haraway's position, which resulted in the recommendation for the new strategy of the Erasmus University, which contains general ecological elements, but with a strong Harawayan emphasis on resurgence, ongoingness, and science art worldings in collaboration with all kinds of kin. Here I also showed the importance and contribution of philosophy, which can connect and enable different scientific disciplines to transform ecosophically through its use of the imagination combined with systematic reflection. Philosophy's contribution to coping with the New Ecologic Regime appears to be invaluable in understanding ecological principles, which can transform institutions and disciplines, in the end hopefully enabling multiple ecologies to thrive and flourish.

Throughout my thesis I have attempted to explain these problems, questions, concepts, solutions, answers and ideas with examples from Rotterdam. These examples functioned as the depiction of a contemporary complex setting in which different parties, peoples, problematizations and actors play ecological roles. I felt it was helpful to tell and create stories myself as a trigger for my own and the reader's imagination in getting a firmer grip on the New Ecological Regime and the challenges it presents us with. These local and personal examples allowed me to explain the thoughts of Guattari, Latour and Haraway more comprehensively. They consistently use examples, stories and experiments from their own encounters and interactions since these relations are essential for their ecological philosophies. However, I have also used these examples for a personal reason; namely to find my own way in this immensely broad, complex and all-encompassing ecological debate on the New Ecological Regime. This debate is simultaneously of a personal nature, since it is also about my personal choices, actions, consequences, responsibilities, and relations with other critters of the earth. Despite my inevitable flaws and the ecological destructions which I unwillingly contribute to, I am glad that I can contribute to this debate with philosophy, and that this thesis allowed me to offer philosophical recommendations to the Erasmus University and municipality of Rotterdam which go further than demanding sustainability. While writing this thesis, one thing has definitely become clear to me, and I hope I have convinced you of the same: more than ever, this era of ecological destruction desperately calls for systematic reflection and a collective use of the imagination, together with all of those endangered ones and to ensure the habitability of the earth.

## BIBLIOGRAPHY

- Adrian E. Raftery, Alec Zimmer, Dargan M.W. Frierson, Richard Startz and Peiran Liu. 2017. "Less than 2 °C warming by 2100 unlikely." *Nature Climate Change* 7. Accessed September 1, 2018. doi:<https://doi.org/10.1038/nclimate3352>.
- Arendt, Hannah. 1982. *Lectures on Kant's Political Philosophy*. Brighton: Harvester Press.
- Assembly, United Nations General. 1987. "Report of the World Commission on Environment and Development: Our Common Future." Transmitted to the General Assembly as an Annex to document A/42/427 - Development and International Co-operation: Environment; Our common Future, Chapter 2: Towards Sustainable Development: Paragraph 1. Accessed September 1, 2018. <http://www.un-documents.net/ocf-02.htm>.
- Authority, Port of Rotterdam. 2018. "Facts & Figures About the Port." *www.portofrotterdam.com*. June. Accessed September 1, 2018. <https://www.portofrotterdam.com/sites/default/files/facts-and-figures-port-of-rotterdam.pdf?token=CJ3nvKBO>.
- Barkham, Patrick. 2018. "'We're doomed': Mayer Hillman on the climate reality no one else will dare mention." *The Guardian*, April 26. Accessed September 1, 2018. [https://www.theguardian.com/environment/2018/apr/26/were-doomed-mayer-hillman-on-the-climate-reality-no-one-else-will-dare-mention?CMP=share\\_btn\\_fb](https://www.theguardian.com/environment/2018/apr/26/were-doomed-mayer-hillman-on-the-climate-reality-no-one-else-will-dare-mention?CMP=share_btn_fb).
- Bateson, Gregory. 1972. *Steps to an Ecology of Mind*. New York: Ballantine.
- Chakrabarty, Dipesh. 2012. "Postcolonial Studies and the Challenge of Climate Change." *New Literary History* 43: 1-18.
- Climate Focus. 2015. "<https://climatefocus.com/sites/default/files/20151228%20COP%2021%20briefing%20FIN.pdf>." *www.climatefocus.com*. December 28. Accessed September 1, 2018. <https://climatefocus.com/sites/default/files/20151228%20COP%2021%20briefing%20FIN.pdf>.
- Climate Transparency. 2017. "[http://www.climate-transparency.org/wp-content/uploads/2017/12/Financing\\_the\\_transition.pdf](http://www.climate-transparency.org/wp-content/uploads/2017/12/Financing_the_transition.pdf)." *www.climate-transparency.org*. December. Accessed September 1, 2018. [http://www.climate-transparency.org/wp-content/uploads/2017/12/Financing\\_the\\_transition.pdf](http://www.climate-transparency.org/wp-content/uploads/2017/12/Financing_the_transition.pdf).
- Costa, Beatriz da. 2010. "Pigeonblog." *Antennae (Interspecies)*: 31-48. Accessed September 1, 2018. <http://www.antennae.org.uk/back-issues-2010/4583475279>.
- Dempster, M. Beth. 1998. "A Self-Organizing Systems Perspective on Planning for Sustainability." Waterloo: University of Waterloo. Accessed September 1, 2018. <http://www.bethd.ca/pubs/mesthe.pdf>.
- Despret, Vinciane. 2005. "Sheep Do Have Opinions." In *Making Things Public*, edited by Bruno Latour and Peter Weibel, 360-368. Cambridge: MIT Press.
- Erasmus University Rotterdam. n.d. *www.eur.nl*. Accessed September 1, 2018. <https://www.eur.nl/en/events/conference-sustainability-next-level-31-may-2018-2018-05-31>.
- EUR Holding b.v. n.d. *drift.eur.nl*. Accessed September 1, 2018. *drift.eur.nl*.
- Fukuyama, Francis. 1989. "The End of History?" *The National Interest* 3-18.

- Genosko, Gary. 2014. "The Life and Work of Félix Guattari: From Transversality to Ecosophy." In *The Three Ecologies*, by Félix Guattari, translated by Ian Pindar and Paul Sutton, 49-85. London: Bloomsbury.
- Guattari, Félix. 1995. *Chaosmosis: an Ethico-aesthetic Paradigm*. Translated by Paul Bains and Julian Pefanis. Sydney: Power Publications.
- . 2014. *The Three Ecologies*. Translated by Ian Pindar and Paul Sutton. London: Bloomsbury.
- Haraway, Donna J. 2016. *Staying with the Trouble. Making Kin in the Chthulucene*. Durham: Duke University Press.
- Heel, Leon van. 2018. "Aboutaleb: 'Haast met die zonnepanelen, want het gaat om banen.'" *AD*, July 7. Accessed July 20, 2018. <https://www.ad.nl/rotterdam/aboutaleb-haast-met-die-zonnepanelen-want-het-gaat-om-banen~a8826ff2/>.
- Hofman, Justin. 2018. *Overal plastic, plastic, plastic: 'Het zit in de haarvaten van ons bestaan*. NOS. April 29. Accessed September 1, 2018. <https://nos.nl/artikel/2229555-overal-plastic-plastic-plastic-het-zit-in-de-haarvaten-van-ons-bestaan.html>.
- Hoggan, James. 2009. *Climate Cover-Up. The Crusade to Deny Global Warming*. Vancouver: Greystone.
- imbie. n.d. *Sea Level Rise*. Accessed September 1, 2018. <http://imbie.org/about-the-project/sea-level-rise/>.
- IPCC. n.d. [www.ipcc.ch](http://www.ipcc.ch). Accessed July 1, 2018. [http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5\\_SYR\\_FINAL\\_SPM.pdf](http://www.ipcc.ch/pdf/assessment-report/ar5/syr/AR5_SYR_FINAL_SPM.pdf).
- John Cook, Naomi Oreskes, Peter T. Doran, William R.L. Anderegg, Bart Verheggen, Ed W. Maibach, J. Stuart Carlton, et al. 2016. "Consensus on consensus: a synthesis of consensus estimates on human-caused global warming." *Environmental Research Letters*. doi:DOI:10.1088/1748-9326/11/4/048002.
- Josh Holder, Niko Kommenda and Jonathan Watts. 2017. "The three-degrees world: the cities that will be drowned by global warming." *The Guardian*, November 3. Accessed September 1, 2018. <https://www.theguardian.com/cities/ng-interactive/2017/nov/03/three-degree-world-cities-drowned-global-warming>.
- Kahn, Brian. 2016. "The World Passes 400 PPM Threshold. Permanently." *Climate Central*, September 27. <http://www.climatecentral.org/news/world-passes-400-ppm-threshold-permanently-20738>.
- Korte, Jelmer Molmers and Leon de. 2018. "Ieder uur komen er 31000 zonnepanelen bij. Dit is de grootste revolutie sinds het internet." *De Correspondent*. <https://decorrespondent.nl/7578/ieder-uur-komen-er-31-000-zonnepanelen-bij-dit-is-de-grootste-revolutie-sinds-het-internet/835163802-6420b3fd>.
- Latour, Bruno. 2017. *Facing Gaia. Eight Lectures on the New Climatic Regime*. Cambridge: Polity.
- . 2017. *Oog in oog met Gaia. Acht lezingen over het Nieuwe Klimaatregime*. Translated by Rokus Hofstede en Katrien Vandenberghe. Octavio publicaties.
- Luntz, Frank. 2007. *Words That Work*. New York: Hachette.

- Mebius, Dion. 2017. "Haven Rotterdam wil CO<sub>2</sub>-uitstoot opbergen in lege olie- en gasvelden onder Noordzee." *de Volkskrant*, October 30. Accessed September 1, 2018. <https://www.volkskrant.nl/binnenland/haven-rotterdam-wil-co2-uitstoot-opbergen-in-lege-olie-en-gasvelden-onder-noordzee~a4525748/>.
- Merriam-Webster. n.d. *www.merriam-webster.com*. Accessed September 1, 2018. <https://www.merriam-webster.com/dictionary/subjectivity>.
- Mommers, Jelmer. 2018. "Negen onjuiste uitspraken in 33 minuten: zo beïnvloedt Shell-CEO Ben van Beurden het publieke debat." *De Correspondent*, May 7. Accessed September 1, 2018. <https://decorrespondent.nl/8195/negen-onjuiste-uitspraken-in-33-minuten-zo-beinvloedt-shell-ceo-ben-van-beurden-het-publieke-debat/2041336860365-882fec64>.
- National Geographic. n.d. *Deforestation*. Accessed September 1, 2018. <https://www.nationalgeographic.com/environment/global-warming/deforestation/>.
- Oosterling, Henk. 2013. *ECO3. Doen denken*. Heijningen: Jap Sam Books.
- Oreskes, Naomi. 2004. "The Scientific Consensus on Climate Change." *Science* 306 (3): 1686-1686. doi:10.1126/science.1103618.
- Oxenaar, Sem. 2017. "Mapping the financial and organizational interdependencies between the Dutch state and the fossil fuel industry." Berlin. <https://drift.eur.nl/wp-content/uploads/2017/08/Oxenaar-2017-Mapping-the-financial-and-organizational-interdependencies-between-the-Dutch-State-and-the-fossil-fuel-industry.pdf>.
- REN21. 2017. "[http://www.ren21.net/wp-content/uploads/2017/06/GSR2017\\_Full-Report.pdf](http://www.ren21.net/wp-content/uploads/2017/06/GSR2017_Full-Report.pdf)." *www.ren21.net*. Accessed September 1, 2018. [http://www.ren21.net/wp-content/uploads/2017/06/GSR2017\\_Full-Report.pdf](http://www.ren21.net/wp-content/uploads/2017/06/GSR2017_Full-Report.pdf).
- Singer, Jeffrey Lin and P.W. 2018. "China is using furnaces to manufacture 10 billion tons of rain." *Popular Science*, April 11. Accessed September 1, 2018. Jeffrey Lin and P.W. Singer, "China is using furnaces to manufacture 10 billion tons of rain," *Popular Science*, April 11, 2018, <https://www.popsci.com/china-cloud-seeding-silver-iodide-furnace>.
- Sloterdijk, Peter. 2005. *Im Weltinnenraum des Kapitals. Für eine philosophische Theorie der Globalisierung*. Berlin: Suhrkamp.
- n.d. *The Parliament of Things*. Accessed September 1, 2018. <https://theparliamentofthings.org/articles/pleidooi-van-de-noordzee>.
- United Nations. n.d. "Report of the World Commission on Environment and Development: Our Common Future." Accessed September 1, 2018. [www.un-documents.net/ocf-02.htm#l](http://www.un-documents.net/ocf-02.htm#l).
- United Nations, Department of Economic and Social Affairs, Population Division. 2017. *World Population Prospects: The 2017 Revision*.
- Vakmanstad. n.d. *vakmanstad*. Accessed September 1, 2018. <https://www.vakmanstad.nl/over-ons/missie-en-visie/>.
- Vincent Karremans, Said Kasmi, Judith Bokhove, Barbara Kathmann, Sven de Langen, Tjalling Vonk. 2018. "Nieuwe energie voor Rotterdam. Coalitieakkoord 2018-2022." *Nieuwe energie voor*

*Rotterdam.* Rotterdam, June 26. Accessed September 1, 2018.  
<https://www.rotterdam.nl/nieuws/coalitieakkoord/Coalitieakkoord-2018-2022.pdf>.