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COLLECTIVE RESPONSIBILITY IN THE ANTHROPOCENE

Master's Thesis in Philosophy

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Abstract: Geoscientists have heralded the advent of a new geological epoch: the Anthropocene. This new epoch highlights the unprecedented human power to influence the Earth system, thanks to the advancement of modern technology. As the most characteristic phenomenon of the new era, climate change, as well as the inadequacy of human action to address it, poses a challenge to previous moral and political theories. By examining the critiques of contemporary scholars, this thesis attempts to identify the reasons why past theories fall short in addressing the climate crisis, and proposes a theory of collective responsibility as the appropriate ethical framework in the Anthropocene. Inspired by the philosophical inquiry of Dipesh Chakrabarty, this thesis engages with the works of modern philosophers such as Immanuel Kant, Hannah Arendt, and Hans Jonas to construct the theory of collective responsibility. It argues that collective responsibility in the Anthropocene should transcend the boundaries of different communities and generations, and is capable of motivating people to take collective action to combat climate change.

Keywords: Anthropocene, climate change, collective responsibility.

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Table of Contents

Introduction	1
Chapter 1. The Anthropocene and our ethical failure	3
1.1. The advent of the Anthropocene	3
1.2. Our ethical failure in the new epoch	5
1.3. Chapter summary	11
Chapter 2. Collective responsibility across communities	13
2.1. Arendt: Responsibility generated by membership of the human community	13
2.2. Kant: Toward an expanded political community	20
2.3. Chapter summary	23
Chapter 3. Collective responsibility through generations	24
3.1. The intergenerational problem in climate change	24
3.2. Jonas: Caring for the future generations as their parents	26
3.3 Chapter summary	34
Chapter 4. Potential objections and replies	36
Conclusion	40
Bibliography	42

Introduction

Many scientists and researchers believe that we have entered a new geological epoch known as the Anthropocene, which marks a significant period in Earth's history characterized by the dominant influence of human activities on the planet's ecosystems and geology. Among the many emerging phenomena that characterize this era, anthropogenic climate change stands out as particularly profound and serves as a poignant indication of the crisis facing humanity in this epoch.

This thesis argues that an ethical framework based on collective responsibility is crucial for addressing climate change in the Anthropocene. Throughout the chapters, I emphasize the urgency of adapting our ethical and political theories to confront the unprecedented power that humanity wields in shaping the environment.

Chapter 1 examines the emergence and development of the Anthropocene discourse and the tension between this idea and earlier ethical theories by analyzing the critiques of scholars such as Hans Jonas, Stephen Gardiner, Dale Jamieson, and Dipesh Chakrabarty. This chapter lays the groundwork for the rest of the thesis by illuminating the inadequacy of conventional ethical paradigms in addressing the novel challenges of the Anthropocene.

Engaging with Hannah Arendt's theory of German political responsibility after World War II, Chapter 2 attempts to outline the theory of collective responsibility and argues that it should help us conceptualize humanity as a collectivity with the potential to cooperate in the face of climate change. The interpretation of Immanuel Kant's concept of universal hospitality and the philosophical discussion of the advancement of space technology are provided to complement Arendt's theory, further arguing for the extension of a single political community to the entire human world.

Chapter 3 begins with an examination of the intergenerational problem posed by climate change. It argues that a proper ethics in the Anthropocene must take the interests of future generations into account in current decision-making. Drawing on Hans Jonas's theory of responsibility, including his imperatives of responsibility and the claim that parental care for the child is the archetype of all responsibility, I argue that a temporal dimension needs to be

integrated into the framework of collective responsibility: In addressing climate change, we should be responsible not only for people living in the present, but also for those living in the distant future, as their distant ancestors.

Chapter 4 addresses some potential objections, including questions about the legitimacy of the discourses surrounding the Anthropocene and the practical grounding of the theory of collective responsibility. In responding to concerns that the theory of collective responsibility remains anthropocentric, I suggest further refinements and adaptations for future research.

In conclusion, the theory of collective responsibility offers a robust analytical framework and has considerable theoretical appeal. Although directly inspired by contemporary discourse on the Anthropocene, this framework is deeply rooted in modern moral and political thought. By embracing collective responsibility, we are expected to forge a path towards a more ethically engaged and sustainable future in the Anthropocene.

Chapter 1: The Anthropocene and our ethical failure

1.1. The advent of the Anthropocene

How to define the current era we are living in from the perspective of geology? While the prevailing designation for our current geological epoch remains the Holocene which began approximately 11,700 years ago, there is a growing consensus among geoscientists that human activities have ushered in a new epoch, known as the Anthropocene.¹

The concept of the Anthropocene informs us that humans are now the dominant force shaping the planet's environment, often to the detriment of natural ecosystems and biodiversity. As the prefix “anthro” suggests, the concept emphasizes the collective role that humans play in changing the Earth system. It suggests that for the first time in Earth's history, a species (humans) has gained the capacity to act as a geological force and the misuse of this power results in the current environmental crisis. Any solution to the crisis must recognize humanity's exceptional position as an aggregate in relation to nature.

While the concept of an age marked by far-reaching human influence on the Earth can be traced back to the late eighteenth century in the European intellectual tradition, the term Anthropocene was popularized by atmospheric chemist Paul Crutzen and limnologist Eugene Stoermer in 2000.² Crutzen and Stoermer suggested that, given the substantial and ever-increasing impact of human activities on the Earth system, it is “more than appropriate to emphasize the central role of mankind in geology and ecology by proposing to use the term ‘Anthropocene’ for the current geological epoch”.³

Since Crutzen and Stoermer formulated the term and introduced it to the general public, there has been considerable cross-disciplinary discourse about the legitimacy of the Anthropocene as a geological concept and its explanatory and analytical power as a cultural concept. As a

¹ In a recent vote of the International Subcommission on Quaternary Stratigraphy (SQS), twelve members opposed the proposal to establish an Anthropocene epoch, while only four members supported it. Two prominent scientists in the chair, Jan Zalasiewicz and Martin Head, decided to challenge this result. This event shows that the concept of the Anthropocene is still highly contested. For more information, see Witze 2024.

² For further discussion of the intellectual history of the concept, see Trischer 2016 and Chapter 7 of Chakrabarty 2021.

³ Crutzen & Stoermer 2000, 17.

geological concept, while the exact timing of entry into the Anthropocene is still debated, many Earth system scientists agree in their research that humans are now playing a new role in the evolution of the Earth system and that we are currently living in an epoch distinct from the Holocene.⁴ As a cultural concept, the discussion of the Anthropocene extends far beyond the realm of the natural sciences and enters global public culture in a variety of ways. For example, after Crutzen and Stoermer, the works published by the interdisciplinary Anthropocene Working Group continue to bring the Anthropocene into the public eye. In 2013-2014, the *Haus der Kulturen der Welt*, together with the *Deutsches Museum* and the Rachel Carson Center for Environment and Society, launched the Anthropocene Project, which inspired many other cultural institutions around the world to explore the topic.⁵ Plus, numerous publications have been devoted to the concept of the Anthropocene, helping to increase its popularity and familiarity in public discourse. Hence, no matter we understand this term in which way, it can be assumed that the Anthropocene, as both a geological and a cultural concept, has demonstrated its heuristic and analytical capacity to expand previous environmental thinking.

The reason why the idea of the Anthropocene can question, challenge, and expand on our existing environmental knowledge is that it draws our attention to the new conditions of our time: the unprecedented increase of human power and how this power decisively changes the planet's system (usually in a destructive way), and it expects humankind to address this new condition as a unified species. The central task of this thesis is to reflect on the problems arising from the new condition of the Anthropocene, and facilitate intellectual inquiry into the possible solutions from the perspectives of ethics and political philosophy.

Human activities have caused many problems for the Earth's system, such as landscape transformation and loss of biodiversity. However, climate change is one of the prominent manifestations of human influence that the concept of the Anthropocene encapsulates. In most definitions of the Anthropocene, global warming and climate change are usually pointed out

⁴ For further discussion of scientific debates on the possible start date of the Anthropocene, see Lewis & Maslin 2015. Regarding efforts to define the Anthropocene by integrating statistical and Earth system science approaches, see Steffen et al 2016.

⁵ See "*Das Anthropozän-Projekt*" on https://archiv.hkw.de/de/programm/projekte/2014/anthropozaen/anthropozaen_2013_2014.php.

as one of the most characterizing factors. For example, in the introduction of the Anthropocene by UNESCO: “The term Anthropocene was coined to take into account the impact of the accelerated accumulation of greenhouse gases on climate and biodiversity, and also the irreversible damage caused by the over-consumption of natural resources”.⁶ Climate change is unique in characterizing the Anthropocene for two reasons. First, because of its global impact and long-term persistence. Second, for Paul Crutzen, who popularized the term of Anthropocene with the full weight of his reputation as a Nobel laureate, the ongoing human-induced climate change is such a persistent phenomenon that a new geological epoch must be named to represent its significance: “The neologism was meant to firmly emphasize the anthropogenic causes of climate change, which at the beginning of the twenty-first century were still heavily contested”.⁷ Crutzen also suggests that the Anthropocene can be measured (at least partly) by the atmospheric concentration of CO₂.⁸ It can be said that it is the concern about climate change that has brought the term into the public domain in the first place.

Without foregoing the critical examination of the main ideas of the Anthropocene, the unprecedented impact of human activity on the Earth and the collective conception of humanity in environmental thought, this thesis will take them into account and explore how the condition of the new geological epoch problematizes previous moral and political thought in addressing anthropogenic climate crises, and search for an ethical theory compatible with the advent of the Anthropocene.

1.2 Our ethical failure in the new epoch

The Anthropocene is not merely a scientific term, but has its ethical and political implications as it indicates a human-induced crisis: Humans have gained the ability to influence the Earth system, but we do not seem to have wielded that power wisely. The most salient example is that the Earth is continuously warming due to anthropogenic greenhouse gases emissions and the destruction of carbon sinks, and humans seem unable to effectively reverse or even

⁶ See “Anthropocene: The vital challenges of a scientific debate” on <https://courier.unesco.org/en/articles/anthropocene-vital-challenges-scientific-debate>.

⁷ Trischler 2016, 310.

⁸ Steffen et al. 2007, 616.

mitigate this phenomenon.⁹ This is shown clearly by the challenges faced by the Paris Agreement, the landmark international agreement adopted in 2015 under the United Nations Framework Convention on Climate Change, which calls for a global effort to combat climate change by limiting global warming to well below 2°C above pre-industrial levels. Recent updates and commitments from various countries are significantly lacking and fall short of the reductions needed to keep global temperature rise within the targeted limits. Current commitments would result in only a modest reduction in greenhouse gas emissions by 2030, far short of what is needed to prevent severe climate impacts.¹⁰ As a long-term, large-scale, global problem, climate change requires cooperation among various actors, including individuals, corporations, and states. But we are not able to offer it.

Humanity's inadequate response to climate change seems to point to an ethical failure, and prompts us to consider whether the ethical and political theories that guide that response are sufficiently effective. In *A Perfect Moral Storm*, Stephen Gardiner argues that the major theories we have, including utilitarianism, liberalism, socialism, and libertarianism, all fall short of addressing the global climate crisis, and this creates a theoretical storm. According to Gardiner: "I take a perfect storm to involve the unusual intersection of a number of serious, and mutually reinforcing, problems, which creates an unusual and perhaps unprecedented challenge".¹¹ His metaphor of the perfect moral storm is meant to show that the three problems (global, intergenerational, and theoretical) are the reasons why humans have difficulty in acting ethically in the face of climate change.

Gardiner's argument begins by creating different scenarios of the consequences of climate change (soft, rough, hard, and crash landings) according to the different magnitudes and corresponding impacts, and then he demonstrates that the hard and crash landings will pose a realistic threat. However, since in these two scenarios "accept and endure" is manifested as the main strategy of the current global situation, and this is apparently inappropriate given the

⁹ For further discussion of human greenhouse gases emissions as the primary driver of global warming, see Strom 2007, 96-97, 111, 116, 125. For a discussion of the destruction of carbon sinks, see McKinnon 2022, 3-4.

¹⁰ See "COP26: New commitments fail to meet Paris Agreement" on <https://unric.org/en/cop26-new-commitments-fail-to-meet-paris-agreement/>.

¹¹ Gardiner 2011, 6-7.

nature of the current threat, he concludes that “there is strong reason to believe that the existing system is failing the global test”.¹² Gardiner’s logic is that if our climate policies are incapable of addressing climate change, this fact puts pressure on our social and political institutions that allow the threat to occur, as well as the ideologies that support them.¹³ The lack of established ethical frameworks to guide us through these unique and complex issues (the theoretical storm) is particularly evident when it manifests itself in the difficulty of coordinating action across nations and cultures (the global storm) and the ethical dilemma of today’s decisions affecting future generations (the intergenerational storm). Gardiner points out that although we realize the reason that cause both the global and intergenerational storms is a serious power asymmetry, in which the world’s most affluent nations have considerable power to act in their own favor and earlier generations can affect the prospects of future generations in a one-way manner, we do not have robust general theories to guide us to address them. As he writes: “Existing theories are extremely underdeveloped in many of the relevant areas.....This not only complicates the task of behaving well, but also renders us more vulnerable to the first two storms”.¹⁴

Gardiner’s argument confront us with the possibility that our mainstream ethical theories have shortcomings when it comes to addressing climate issues, but in order to explore the multifaceted reasons why existing theories are inadequate, we need to engage with other philosophers. In the following part of this chapter, I will focus on three scholars, including Hans Jonas, Dale Jamieson, and Dipesh Chakrabarty, who reflect on our ethical failure in the modern environmental crisis, to further the investigation and consider how their theories can contribute to constructing an adequate ethics in the Anthropocene.

Hans Jonas is one of the first philosophers to consider why past ethical theories have been unable to cope with the environmental crises caused by human beings in the modern age. He analyzes this question from both a subject and an object perspective of ethics. With regard to the subject of ethics, Jonas argues that in antiquity human power was too insignificant to

¹² Ibid, 229. According to Gardiner, the central concern regarding the global test revolves around whether current institutions and theories are capable of adopting a rational strategy for specific types of cases.

¹³ Ibid, 21-22.

¹⁴ Ibid, 7.

make fundamental changes in nature. But thanks to modern technology, the human race is capable of reshaping the Earth system and thereby “the qualitatively novel nature of certain of our actions has opened up a whole new dimension of ethical relevance” that the standards and canons of traditional ethics cannot foresee.¹⁵ Second, regarding the object, previous ethics is mostly anthropocentric and cannot include nature in its scope: “It is in this intrahuman frame, then, that all traditional ethics dwells, and it matches the size of action delimited by this frame”.¹⁶ But due to the dramatic increase of human power and the more frequent challenge nature poses to humanity with the catastrophes it creates, it is necessary to consider nature itself as an object in the ethical realm. In short, Jonas warns us that the horizons of our ethical theory must be broadened to address the problems of a new age characterized by technological progress. We need to think of human beings (and their actions) as an aggregate, and seriously consider the long-term impact of our collective actions on the environment:

“Man now is evermore the maker of what he has made and the doer of what he can do.....But who is ‘he’? Not you or I: it is the aggregate, not the individual doer or deed that matters here; and the indefinite future, rather than the contemporary context of the action, constitutes the relevant horizon of responsibility”.¹⁷

These two ideas of Jonas give birth to his imperative of responsibility toward future generations, which will be discussed in more detail later in the thesis.

Dale Jamieson is a more contemporary philosopher who questions the validity of dominant ethical and political theories of climate change. Noting the failure to achieve an agreement on climate change at the 2009 United Nations Framework on Climate Change Convention Conference of the Parties (COP 15), Jamieson famously argued in his book *Reason in a Dark Time* that the prevailing optimistic narrative that humanity can solve the climate change with international and meaningful actions has now ended.¹⁸ For Jamieson, the bedrock of our failure to address climate change lies in the conflict that the norms of the world with which human moral capacity has been so familiar are actually impotent to address climate change. He contends that in order to save our ethical failure on climate change, many of the prevailing

¹⁵ Jonas 1984, 1.

¹⁶ Ibid, 4.

¹⁷ Ibid, 9.

¹⁸ Jamieson 2014, 237.

notions and habits of reasoning to which we have become accustomed need to be reexamined and reconfigured. For example, addressing climate change may require us to think probabilistically, but most people would intuitively find it extremely difficult to think about the issue in this way.¹⁹ Another example Jamieson gives is that the ambiguity of the agents of action in climate issues invalidates moral judgment based on causal inquiry into action and harm. As Jamieson argues, “harm-causation plays a central role in our conception of moral responsibility”, and our moral consciousness always tends to identify who is morally suspect based on the intent of the action and an identifiable connection between the actor and the harm in terms of proximity in time and space.²⁰ But this is not always easy. In Jamieson’s thought experiment where one actor Jack intentionally steals Jill’s bicycle, it is not difficult to identify who is the perpetrator and who is the victim. However, the analysis will be more complicated if “acting independently, Jack and a large number of unacquainted people set in motion a chain of events that causes a large number of future people who will live in another part of the world from ever having bicycles”.²¹ This can be seen as an analogy to how global warming is caused by the combined actions of innumerable subjects (whether individual or collective actors) over a long period of time. In sum, what Jamieson tries to demonstrate is that our moral incapacity in the face of the climate problem lies in many of the paradigms we are accustomed to, such as thinking of a problem in deterministic terms and tracing who is responsible for harm by the causal mechanism. These paradigms are prevalent in our ethical traditions, but they are poorly suited to the climate crisis in the Anthropocene.²²

In considering why it is so difficult for humans to respond effectively to climate change, Dipesh Chakrabarty has contributed a unique argument from an interdisciplinary perspective. He argues that in order to deal with the climate crisis, we need to approach it as a planetary issue situated in a much larger timescale, not just a global one. What is unique about Chakrabarty is that his entire discussion of climate change is grounded in Earth system

¹⁹ Ibid, 102-104.

²⁰ Ibid, 151.

²¹ Ibid, 151.

²² The solution that Jamieson proposes is that a set of green virtues could help humans in adapting to climate change. These virtues encourage individuals and societies to live in ways that minimize harm to the planet and future generations, regardless of the actions of others. For further discussion, see Chapter 6. Living with Climate Change in Jamieson 2014.

science research. Earth system science, the study of the Earth's physical, chemical, and biological processes and how these components interact to shape the planet's environment and climate, leads him to distinguish the two entangled analytical categories of globe and planet in *The Climate of History in a Planetary Age*. While the globe is defined as a human-centered realm with a much shorter history and subject to moral and political issues, the Earth as a planet is a non-anthropocentric body with a 4.5 billion year history, and against the planetary forces, humanity can be reduced to creaturely life.²³

Corresponding to the differentiation between globe and planet, Chakrabarty reveals two temporalities in climate thinking: Human-centered time and deep time (geological time).²⁴ Human-centered time is what we are familiar with in our daily lives. It can be easily perceived by humans and measured by common devices such as clocks or watches. Relying on this sense of time, we make plans and develop strategies in terms of years, decades, and at most centuries. Deep time, however, is used to measure geological evolution. Since a geological epoch can last millions of years, deep time is much longer and deeper than human-centered time.²⁵ Derived from the recognition of two temporalities, Chakrabarty presents two general solutions to the current climate crisis.²⁶ First, take action directly from the perspective of human-centered time and demand the reduction of greenhouse gas emissions. In fact, almost all of the climate change policies being promoted today, such as changing transportation and promoting renewable energy, are derived from this kind of time thinking. Second, to design strategies from an Anthropocene time perspective and to address the climate crisis as a planetary problem. The two temporalities, and thus the two strategies, are intertwined with

²³ Chakrabarty's distinction of globe and planet as two analytical categories is pervasive in the whole book, but is most discussed in the Introduction: Intimations of the Planetary and Chapter 3. The Planet: A Humanist Category. See Chakrabarty 2021, 3, 4, 14, 18, 70, 80, 85.

²⁴ Chakrabarty's proposal to think climate change as a problem of mismatched temporalities (human timescales and deep history) is mostly shown in Chapter 2. Conjoined Histories. See Chakrabarty 2021, 49, 50, 54, 60, 65.

²⁵ Deep time requires thinking in terms of thousands or even millions of years, and it will lead to a very different result in considering environmental issues. For example, as is discussed in Chapter 2 of Chakrabarty 2021, fossil fuels, often considered non-renewable resources, will actually be abundant on Earth in two billion years. When the time scale changes, many crucial conclusions about the Earth system change.

²⁶ Chakrabarty 2021, 135-136.

each other. What Chakrabarty suggests is that contemporary theories that address climate change focus primarily on human-centered time and are entangled with discussions of justice within modern history, but fail to see the climate crisis as a planetary problem that goes beyond human society. As he contends, deep time informs us that discourses of historical injustice since modernity, including capitalism and colonialism, are “a necessary but insufficient framework for comprehending the scale and the depth of the human predicament today”.²⁷ This does not mean that we have to abandon political discussions about justice, but we may need to re-contextualize them “within the awareness of a predicament that now marks the human condition”.²⁸ Chakrabarty’s core argument can be summarized as follows. Informed by the study of Earth system science, we need to recognize that outside of the dominant discussion of climate change, which is usually set in a much smaller theoretical framework and time scale (modern history), there is a much broader horizon in the question. In other words, he reveals that “the growing awareness of the inextricable entanglement of the human and the natural.....forces us to re-envision our epistemological commitments and interrogate the meaning of politics and action”.²⁹

1.3 Chapter Summary

This chapter began with an introduction to the emergence and development of the Anthropocene discourse, and then examined some prominent scholars who have explored the shortcomings of our existing theories to guide climate action in the new era. Jonas argued that with the significant development of modern technology, the scope of both the subject and object of ethics should be expanded. Gardiner pointed out that many of the mainstream ethical theories we use have limited applicability in dealing with climate issues, and lack effectiveness in calling for cooperation across national and cultural boundaries and in considering the interests of future generations in today’s actions. Jamieson argued that the moral intuitions and ethical principles to which we have become accustomed may fail in the face of climate problems. Chakrabarty’s engagement with Earth system science reminds us

²⁷ Chakrabarty 2022, 610.

²⁸ Chakrabarty 2018, 29.

²⁹ Hellerma 2020, 34-35.

that climate change is fundamentally a problem that transcends human history and needs to be considered as a planetary issue. All of the issues discussed by these scholars have contributed to our powerlessness in the face of climate change, and this powerlessness seems to outline an ethical failure that we have encountered in the Anthropocene.

Reflecting on these critiques above, I have come to realize that a key essential element of an ethics suitable for the Anthropocene is a notion of collective responsibility. Collective responsibility here should be defined as a shared ethical duty that transcends individual, political, and generational boundaries and focuses on the preservation of our common home, the Earth, and humanity itself. Collective responsibility involves a shared commitment to sustainable living, environmental protection, and intergenerational equity, recognizing that the well-being of our planet and future generations depends on the collective actions and decisions made today. It emphasizes cooperation, respect for nature, and a long-term perspective in addressing environmental challenges.

Among the scholars discussed above, Chakrabarty is the most stimulating, not only because his argument for differentiating the categories of globe and planet opens up a new conceptual space for us to contemplate on anthropogenic climate change, but also because of his multidisciplinary approaches to the problem, such as his engagement with Earth system science and the theories of various moral and political philosophers throughout history.

Inspired by the methodology of Chakrabarty, I'll delve into an exploration of the works of Hannah Arendt, Immanuel Kant, and Hans Jonas in the following chapters, with the goal of creating a more comprehensive theory of collective responsibility. These authors are chosen not only for their theoretical relevance to my thesis, but also for the dialogue between their works. For example, Arendt and Jonas were contemporaries, and both were influenced by Kant. Chakrabarty is a reader of Kant, Arendt, and Jonas and has developed his theory by drawing heavily on them.

Chapter 2: Collective responsibility across communities

This chapter aims to discuss the collective responsibility that transcends the differences and conflicts between communities that are always an obstacle to global cooperation in the fight against climate change. It begins with an interpretation of Arendt's concept of politics, followed by a discussion of how her argument for German political responsibility can be extended to justify humanity's collective responsibility for the crisis of the Anthropocene. An analysis of Kant's writing on universal hospitality as a requirement for perpetual peace will be provided to complement Arendt's theory, further demonstrating why a dominant notion of political community needs to be expanded.

2.1. Arendt: Responsibility generated by membership of the human community

Arendt is certainly a valuable figure if we try to assess her theoretical contribution to discussions of the new condition in the Anthropocene. As a prominent figure in modern political thought, she started to contemplate the alienation of human beings from Earth from a planetary perspective far before the development of Earth system science in the 1980s. In the prologue to *The Human Condition*, Arendt begins her book with a reflection on the launch of the first artificial satellite, the possibility of interstellar travel, and how the idea of escaping from the confinement of Earth endangers our worldliness.³⁰ Arendt's meditation on the relationship between human beings and the Earth as their habitat stands as a pivotal moment in modern political philosophy. As Chakrabarty comments, Arendt renewed political philosophy in the 1950s with her perception and critique of advances in space technology after Thomas Hobbes inaugurated modern political thought with the publication of the *Leviathan* in the 17th century.³¹ While Hobbes's discussion of the social contract and absolute sovereignty informs us that we can be citizens of a particular state, Arendt's observation reveals that, in a more fundamental sense, we are all inhabitants of the Earth:

“Precisely when the immensity of available space on earth was discovered, the famous shrinkage of the globe began, until eventually in our world.....each man is as much as an inhabitant of the earth as he is

³⁰ Arendt 1998, 1-6. Here, “planetary perspective” generally means that Arendt considers the Earth as a category in her political thought. It differs from the terminology used by Chakrabarty, who uses “planetary” to strictly refer to the kind of thinking inspired by the knowledge of Earth System Science that emerged in the 20th century. For further elaboration of his planetarity, see Chakrabarty 2022, 608-609.

³¹ Chakrabarty 2021, 71-72.

an inhabitant of his country”.³²

Different from the earlier political theories, Arendt’s view underscores the awareness of the threats facing the world (human beings) in an age defined by the advancement of space technology.

Despite that Arendt opens many threads for contemporary readers, I will focus on her theoretical construction of German political responsibility to address the question in our context. Before any further discussion, it is important to first understand what is politics and the political in Arendt’s framework. Three keywords characterize the concept of politics for Arendt: “Action” (including speaking and acting) as the expression of politics; “world” as the space in which politics arises; “plurality” as the most essential precondition for politics to happen.

In *The Human Condition*, Arendt introduces her analysis of the three forms of basic activity that correspond to different human conditions: labor, work, and action. Labor involves biological processes and physical preservation. It is often manifested as repetitive toil (eating, sleep, reproduction, etc.) that provides the necessities and corresponds to the human condition of life and survival. Work describes the more complicated activities through which a subject “provides an ‘artificial’ world of things, distinctly different from all natural surroundings”.³³ The result of work would have the quality of craftsmanship and durability, and work corresponds to the human condition of worldliness. Although both labor and work are of significance, the most important component of the *vita activa* (active life) is action, which takes place when individuals reveal themselves to one another in the public sphere through speaking and acting. As the irreducible condition of politics, action occupies the highest position in the *vita activa*, “a life devoted to public-political matters”.³⁴ Action is a distinctive human activity of setting things in motion and starting something new, and it gives meaning and possibility to every life. Every individual should engage in action as “a life without speech and without action, on the other hand...is literally dead to the world; it has ceased to be

³² Arendt 1998, 250.

³³ Ibid, 7.

³⁴ Ibid, 12.

a human life because it is no longer lived among men”.³⁵ Compared with the other two forms of human activity, action is special due to its strong link with politics. The progression from labor and work to action can be believed to represent a development from necessity, isolation, and uniformity to freedom, togetherness, and plurality.

In Arendtian sense, politics is expressed as action and can only arise in the world. The world emerges from the durable artifacts and institutions created by work and serves as the common ground of human reality. Unlike nature, which primarily involves labor, the world is a public space produced by the work of our hands, offering stability and solidity to mortal and precarious humankind. It is only in the world that pluralistic human beings are able to come together to present themselves to one another through speech and action, and then to generate actions of lasting influence.³⁶

Plurality is the precondition of politics because both the expression and site of politics require pluralistic participants. Plurality in human society implies the multiplicity of members, as well as the unique perspectives of each member and their potential to start something new. Politics cannot take place in singularity because “this revelatory quality of speech and action comes to the force where people are with others.....that is, in sheer human togetherness”.³⁷ Moreover, “.....matters of practical politics, subject to the agreement of many; they can never lie in theoretical considerations or the opinion of one person”.³⁸ Only through communication, deliberation, and cooperation among actors with different perspectives can individuals go beyond their subjective experiences and personal interests, see the surrounding reality, develop a common sense shared by all members, and make politics come alive in the world. The existence of plurality “creates the public realms or polis as a flickering space between people”.³⁹

To summarize the above discussion, politics for Arendt is an activity carried out by pluralistic members in the public sphere, and thereby any political discussion must take into account the

³⁵ Ibid, 176.

³⁶ For more on Arendt’s explanation of the concept of the world, see Arendt 1987a; Arendt 2005a.

³⁷ Arendt 1998, 180.

³⁸ Ibid, 5.

³⁹ Kattago 2014, 59.

a priori plurality and the state of being with others.

The elucidation of the notions of action, world, and plurality lays a foundation for the following discussion of Arendt's theory of German political responsibility, a framework which can be expanded upon to address the issue of the anthropogenic climate crisis. It is not the first time that a philosophical project has attempted to address the environmental issue within Arendt's legacy. For instance, Chakrabarty argues that Arendt's concept of political action based on endurable institutions of the world enables human beings to transcend the limits of their individual lives (mortality) and to address long-term challenges such as climate change.⁴⁰ However, Chakrabarty does not delve deeper into Arendt's theory to articulate a clear solution to the problem. Building on the above interpretation of the Arendtian idea of politics, I suggest that Arendt's idea of German political responsibility can be extended to cope with the ethical failure we face in the climate crisis of the Anthropocene.

Arendt's thinking on political responsibility springs from her reflections on the question of the responsibility of German citizens after World War II. The question of German responsibility is an important theme in Arendt's political thought, and it is discussed in various essays and speeches. A succinct formulation of this question is that "in what sense should 'ordinary' members of a 'perpetrating community' acknowledge a share of collective responsibility for wrongs they neither personally committed nor directly supported?"⁴¹ It is through her analysis of the German question that the notion of vicarious political responsibility is constructed.

The reason why Arendt's meditation on the responsibility of German citizens after the war is relevant to contemporary discussion on climate change lies in the ambiguity of the responsible subjects in both contexts. In her analysis of the implicit responsibility of German citizens, Arendt sheds light on the complex dynamics of collective responsibility amidst moral ambiguity. Similarly, in the context of the climate crisis, when the delineation of responsible actors becomes a challenge. For example, the attribution of burden for climate action can be obscured by a multitude of factors. Whether it's the actions of nations, corporations, or

⁴⁰ Chakrabarty 2021, 8-10.

⁴¹ Schapp 2001, 750.

individuals, discerning clear lines of accountability proves elusive.⁴² Just as Arendt grappled with the moral implications of collective inaction and complicity, contemporary discussions on climate change confront the blurred boundaries of responsibility in a globalized world.

In an early text published in 1945, in which Arendt reflected on the question of German citizens' moral obligation after the war, differentiating guilt and responsibility was her central concern. She feared that holding all of them as guilty was not the right solution to the crime of administrative mass murder since "where all are guilty, nobody in the last analysis can be judged".⁴³ However, she indeed sensed that there should be a broader horizon that goes beyond the boundary between "the guilty" and "the innocent" to hold people responsible for what has happened before:

"Among the responsible in a broader sense must be included all those who continued to be sympathetic to Hitler, as long as it was possible, who aided his rise to power, and who applauded him in Germany and in other European countries".⁴⁴

A stronger distinction between the notions of guilt and responsibility appeared in the exchange of ideas between Arendt and Karl Jaspers prior to his publication of *The Question of German Guilt* in 1947. While Jaspers and Arendt both agreed that all German citizens, by their political membership in the German community, should be collectively responsible for the misdeeds of their state under National Socialism, Jaspers' account was grounded in a sense of guilt. For example, Jaspers identifies four different types of guilt which differentiate how Germans should be held accountable for war crimes committed during World War II. Criminal guilt refers to direct participation in criminal acts, such as committing atrocities or participating in genocide; moral guilt is attributed to individuals who, although not directly involved in committing crimes, were complicit through their silence, indifference, or failure to act against injustice; political guilt arises from one's affiliation with a regime or political system that perpetrates crimes against humanity; metaphysical guilt transcends individual

⁴² A prominent example is when we consider emerging economies China and India as emitters. Their total greenhouse gas emissions each year suggest significant responsibility, yet per capita emissions are comparatively low, and their historical contributions are less than those of more developed nations. This discrepancy raises questions about equitable responsibility allocation, considering both current impacts and past actions.

⁴³ Arendt 2005b, 126.

⁴⁴ Ibid, 125.

actions and extends to the collective guilt of humanity for allowing atrocities to occur.⁴⁵

Arendt did not agree with Jasper's notion of guilt because she argued that one can only feel guilty when she has committed the wrongdoings directly:

“There is such a thing as responsibility for things one has not done; one can be held liable for them. But there is no such thing as being or feeling guilty for things that happened without oneself actively participating in them”.⁴⁶

Besides, guilt has to be personal and individual. It is not applicable to the collectivity: “Guilt, unlike responsibility, always singles out; it is strictly personal”.⁴⁷ In other words, if a philosophical account ought to be provided to explain why those German citizens (and their descendants) who did not commit the crimes directly by themselves should be held liable for what happened, it definitely should not be the theory of guilt proposed by Jaspers.

Arendt provided the notion of political responsibility derived from passive membership as the rightful account. She argued that subjects can be responsible and obligated to act by virtue of their ties to a particular community, without committing wrongs themselves and without feeling guilty. By the time *Eichmann in Jerusalem* was published in 1963, Arendt's idea that responsibility could be ascribed on the basis of political association rather than personal (in)action had matured. She articulated that there is a kind of political responsibility independent of personal action: “Every government assumes political responsibility for the deeds and misdeeds of its predecessor and every nation for the deeds and misdeeds of the past”, and “every generation, by virtue of being born into a historical continuum, is burdened by the sins of the fathers as it is blessed with the deeds of the ancestors”.⁴⁸

Such an idea was explicated again in Arendt's reading of *Collective Responsibility* in 1968. There she reiterated her earlier views that while people can only feel guilty for what they themselves have done, they can be held responsible for actions that happened without their active participation. And, “the reason for my responsibility must be my membership in a group (a collective) which no voluntary act of mine can dissolve”.⁴⁹ For Arendt, collective

⁴⁵ For further discussion, see *The Differentiation of German Guilt in Jaspers* 2000, 55-75.

⁴⁶ Arendt 1987b, 43.

⁴⁷ Ibid, 43.

⁴⁸ Arendt 2006, 298.

⁴⁹ Arendt 1987b, 45.

responsibility is “the price we pay for the fact that we live our lives not by ourselves but among our fellowmen”.⁵⁰ We must bear this responsibility that “pertains to the individual belonging to a community”, even if this belonging is sometimes completely given and passive, as in the case of someone born Jewish or German.⁵¹

Considering the ambiguity of the responsible subjects in the context of German question and the present climate issue, I contend that we extend Arendt’s arguments of political responsibility to articulate the collective responsibility for each member of the human community to address climate change. Admittedly, there is some difference in the two cases. For example, the harm that was done by the Nazi regime was intentional, premeditated, and calculated to a large extent, but in the case of climate change, the harm done to the planet has not been the aim in of itself (considering the daily micro-emission of greenhouse gases by individuals). Besides, in terms of the content of responsibility, responsible Germans after World War II would be required to look back to the past and rectify the past wrongdoings, but responsible human beings facing the climate change are expected to have a forward-looking attitude and take actions for the uncertain future. Both of the differences make holding people responsible in the face of climate change more difficult. However, I still believe that Arendt’s theory has the potential to shape a proper moral attitude that emphasizes the importance of collective thinking in the Anthropocene. Despite that a lot of harm done to the environment is not menacing as the Nazi crimes, human beings indeed are sacrificing the well-being of other creatures in the Earth system and the interests of future generations to their own advantage. The German responsibility focuses on the rectification of past wrongdoings, but it also has the demand for the future generations to remember the history, recognize the experience, and prevent such event from happening again. In this sense, Arendt’s theory for sure has its relevance in the discussion of climate change.

In summary, Arendt’s concept of German political responsibility, derived from German people’s membership in a common political community, weakens the assessment of the causal mechanism between action and harm in prevailing political theories, but underscores

⁵⁰ Ibid, 50.

⁵¹ Herzog 2014, 186.

the inextricable link between the individual and his or her identity as an undeniable part of the group, and reinforces the need for a collective response to the challenges posed by what other members have done.

Finally, I argue that Arendt's theory can be extended to articulate a collective responsibility for human beings in the face of the climate crisis in the Anthropocene. This collective responsibility should help us to understand that from developed industrial countries to emerging economies, every individual in every community has a role to play in shaping the future of our environment. As Arendt argues:

“We can escape this political and strictly collective responsibility only by leaving the community, and since no man can live without belonging to some community, this would simply mean to exchange one community for another and hence one kind of responsibility for other”.⁵²

Since we can only escape this political responsibility by leaving the community, and since no one can live without belonging to the human world, this theory has a strong binding force.

In the face of climate change, the inter-connectedness of our planet with its unevenly shared vulnerabilities necessitates collaborative efforts to mitigate the impact of human activities on the climate. In my opinion, collective responsibility is an appropriate framework for binding everyone to such a commitment, before moving on to calculate and consider the specific content of their obligations.

2.2 Kant: Toward an expanded political community

Despite the theoretical appeal of an all-encompassing collective responsibility, we may ask why it is acceptable to extend Arendt's argument from a particular political community (the German nation-state) to the whole of humanity. After all, a community is not just a collection of similar objects, but its members must be bound together by some strong ties (language, memory, etc.) and thus have the common ground to live and act together.

Notably, in the reality of climate negotiations, there is never a representative of “humanity” or “the world”. Human society is inherently divided by criteria such as social class, race, and nationality, and actors often choose to maximize their self-interest rather than compromise

⁵² Arendt 1987b, 45.

and cooperate with each other. Given this, what is the justification and ethical significance of thinking of human beings as a totality in a metaphysical sense? On this point, I suggest that Kant's writings in *Toward Perpetual Peace* complement Arendt's theory of collective responsibility.⁵³ As a philosophical project characterized by its cosmopolitan ambition, it is still highly relevant in today's discussion of the common purpose of humanity, including but not limited to overcoming war and achieving perpetual peace, for its contribution to cosmopolitanism and its legacy for international law and institutions.⁵⁴

A well-known expression that Kant makes in the text is the third definitive article of perpetual peace: "Cosmopolitan right shall be limited to the conditions of universal hospitality".⁵⁵ In the basic sense, universal hospitality means that respecting the right of actors to visit places inhabited by others and the obligation to receive visitors in return. As this article literally shows, Kant attempts to draw a boundary for the cosmopolitan right, to remind the strangers who plan to visit another state that what they can claim is not a right of a guest (the right to have permanent residence) but only the right to visit (to temporarily stay under the condition of behaving peacefully). However, in his elucidation of where this limited right is grounded, Kant confirms the fundamental reason why everyone has a claim to such right is due to "the right of common possession of the surface of the earth".⁵⁶

This right of common possession is so important because it reminds us that all human beings share the surface of the globe with each other. As the third definitive article of perpetual peace states:

"Since it is the surface of a sphere, they cannot scatter themselves on it without limit, but they must rather ultimately tolerate one another as neighbors, and originally no one has more of a right to be at a given place on earth than anyone else".⁵⁷

I argue that the interpretation of this article should not stop at the point where the limitation of cosmopolitan right is stated, but should go deeper to the level of how the fact that each

⁵³ "Toward Perpetual Peace" is translated from the German title *Zum ewigen Frieden*. According to the translator's note: "In the title of Kant's essay it has been translated as 'toward' since Kant sees perpetual peace as a state that should be approached, but not as one that can be attained". See Kant 2006, 67.

⁵⁴ For a more detailed assessment of the legacy of *Toward Perpetual Peace* left for today's philosophical theories and political reality, see Wood 1998.

⁵⁵ Kant 2006, 82.

⁵⁶ Ibid, 82.

⁵⁷ Ibid, 82.

individual occupies a place on earth challenges the conventional understanding of geographical boundaries and political community.

In my interpretation, what Kant reveals is that although geopolitical boundaries have been created with the development of human history, in the most essential sense we are just as much inhabitants of the planet as any other creature, and we enjoy the same rights of residence for the piece of land that we occupy. Human beings enjoy the same rights of residence in part because we did not get to choose where to reside in the first place. As Kant points out: “By ensuring that human beings could live anywhere on earth, nature has also willed in a despotic fashion that they ought to live all over the earth, even against their own inclination”.⁵⁸ Yet, the present climate crisis reminds us that we share not only the surface of the Earth but also the atmosphere. Kant’s observation resonates with the scientific fact that every part of the planet is connected by climate change. His insight from more than 200 years ago is even more accentuated when we think about climate migration due to the impacts of global warming and how it challenges the orthodox notion of boundaries between political communities. If we take one step further, perhaps it is also safe to say that the imperative of universal hospitality in the project pursuing perpetual peace directly urges us to address anthropogenic climate change collectively because we are obligated to help ourselves and our neighbors to protect and preserve each other’s lands. Otherwise, with the risk of losing our own habitats, there will be no more friendly visits, but only the horrendous and endless wars of competition for the most fundamental resources for survival.

What Kant wrote in the 18th century has not lost its currency, but has rather become more relevant. With the more contemporary advances in modern technology, it is much easier for us to imagine what the inhabitant of the earth is and why humanity can be seen as a unity, an expanded political community.

One attempt to reconfigure the conventional notion of political community by questioning the meaning of space technology advances comes from philosophical meditation on the far-reaching influence of the Apollo missions. There were two photographs of our home

⁵⁸ Ibid, 88.

planet, *Earthrise* and *Blue Marble*, taken from outside the atmosphere during the Apollo missions in 1968 and 1972 respectively. As some of the most widely distributed images in history, both have had a profound impact on public perception and awareness of the Earth and its environment.⁵⁹ The NASA chief Thomas Paine commented in *Look* magazine, that photographs of the Earth from space “emphasize the unity of the Earth and the artificialities of political boundaries”.⁶⁰ In *Earth and World*, Kelly Oliver asserts that the images of Earth from space stand as the most enduring legacy of the Apollo missions, and “seeing the earth ‘whole’ for the first time unites all of ‘mankind’, together on ‘that little’, lonely, floating planet”.⁶¹ Moreover, as Oliver contends, seeing images of the Earth from space “has the potential not only to transform our thinking about political responsibility but also to ground politics in an ethical obligation conceptually, if not chronologically, prior to the possibility of politics”.⁶² Particularly in the face of the climate crisis, it can help unite humankind across national boundaries, foster a cosmopolitan spirit, and build a common commitment to care for the Earth——not only because of the pragmatic consideration, but more fundamentally based on the simple fact of us living together on the Earth.

2.3 Chapter Summary

This chapter opened by interpreting Arendt’s view of politics and then explored how her idea of German political responsibility was constructed and how this theory could support a collective responsibility of humankind for the Anthropocene crisis. Then, Kant’s thoughts on universal hospitality and humanity’s common possession of the Earth’s surface were offered to complement Arendt’s theory. Echoed with contemporary philosophical reflections on the late progress of space projects, Kant’s ideas could enhance Arendt’s framework and push us to expand our understanding of the concept of political community.

⁵⁹ Lazier 2011, 606.

⁶⁰ Poole 2008, 134.

⁶¹ Oliver 2015, 12-13.

⁶² Ibid, 73.

Chapter 3: Collective responsibility through generations

Chapter 2 attempts to establish the collective responsibility of humanity across communities in the face of the global climate crisis. It argues that by recognizing that we are all members of the human community, we should accept climate change as a common challenge and work for cooperation. However, it does not address the intergenerational problem caused by climate change: While people living in the world today can be considered as members of the same community, what about those people who will exist in hundreds and thousands of years? Why should we care enough about them to sacrifice current interests to ensure a sustainable environment for them? Engaging with Hans Jonas, I propose that one way for collective responsibility to take into account the intergenerational dimension and align with the long-term perspective demanded by climate change is to develop a substantive responsibility and envision the relationship between contemporary and future humans as parents and children. As I argue, Jonas's ethics based on the parent-child relationship reflects the tension between present and future generations and can strengthen existing theories of collective responsibility.

3.1. The intergenerational problem in climate change

The causes and effects of climate change are dispersed over time, as emitted greenhouse gases, especially CO₂, that accumulate in the atmosphere and persist over long periods of time, exerting a lasting impact that extends beyond current generations and into the future.⁶³ The impacts of today's emissions not only affect contemporary people, but also cast a long shadow over the well-being and prospects of future generations. For this reason, climate change creates an intergenerational problem: While current generations are the main contributors to the climate crisis, future cohorts will have to bear a disproportionate share of the consequences.⁶⁴ Before we delve deeper into solving this problem, we need to address a fundamental question: Why should we, as the current generation, care about the interests of future generations?

⁶³ For more information on the time lag in the climate system, see Met Office 2019.

⁶⁴ Gardiner 2011, 150-154.

First, we need to confirm that there is interest on the part of future human beings. Admittedly, it is difficult to determine whether (distant) future generations possess moral agency, i.e., the capacity to make moral judgments, exercise moral reasoning, and act on those judgments, since they have not even come into existence yet. The unborn are powerless and have no lobby, but common sense dictates that it is unfair to require subjects to bear the negative consequences of something they did not do. Especially considering the unequal status of agents between different temporal cohorts created by a time lag, the interests and welfare of future human beings should be taken into account when making moral decisions, even if they cannot directly participate in the deliberation. Thus, current actors have a moral obligation to consider and act in the interests of those who will inherit the consequences of our actions.

Second, after confirming the interests of future generations, there is still a problem of temporal discounting. Protecting the interests of future generations may entail sacrificing the interests of present generations. It can be contended that we cannot prioritize the needs of future generations at the expense of current individuals who face immediate challenges such as poverty, hunger, or economic instability. It is difficult to make a calculation to decide how much of today's interests should be sacrificed for the sake of future generations. But I argue that despite the complexity of weighing immediate benefits against long-term consequences, it remains imperative to ensure the existence of future generations, given the special value to us of the continued existence and flourishing of future generations.

To understand this special value, we can consider what the world will look like when there are no more human beings. In *Death and the Afterlife*, Samuel Scheffler investigates the importance of future generations by exploring the impact of our beliefs (or lack thereof) about the afterlife of the human species on our attitudes toward life. He argues that believing that others will carry on our legacies and values after we die is a fundamental ethical and existential concern, which gives meaning and value to the lives of people in the present. The fact that others will continue to live after our death is a fundamental part of what motivates us to engage in activities that contribute to the well-being of future generations. If people today learn that human life ends shortly after they die, it would lead to a treadmill of egoism: People will become more focused on their immediate self-interest rather than engaging in long-term

projects and commitments. As he concludes: “The coming into existence of people we do not know and love matters more to us than our own survival and the survival of the people we do know and love”.⁶⁵ We have a vested interest in the continuation of humanity and the world after our death, and this plays a crucial role in our moral reasoning.⁶⁶

In summary, climate change presents an intergenerational ethical dilemma. As anthropogenic activities continue to exacerbate global warming and its associated impacts, the consequences will be borne disproportionately by those who did not cause the problem: future generations. This raises fundamental questions about the ethical obligations of today’s societies to those who will inherit a world profoundly altered by environmental degradation. It is unjust to deny the interests of survival and the right to the well-being of future generations, whose existence also plays an important role in proving the meaning and value of those currently alive and contributing to the climate crisis. An ethical theory in the Anthropocene must address this problem, taking into account the interests of future human beings and motivating current actors to act against long-term climate change. This is why collective responsibility must be carried out across generations.

3.2. Jonas: Caring for the future generations as their parents

Following the above discussion, I argue that Hans Jonas’s theory of responsibility has the potential to enhance the idea of collective responsibility in the Anthropocene because it offers valuable insights for extending it into the intergenerational realm. Although Chakrabarty refers to Jonas to discuss intergenerational greenhouse gases emission quotas, he refrains from delving deeper into Jonas’s theory of the imperative of responsibility. The imperative, which can potentially serve as an ethical model in response to Chakrabarty’s concern, remains unexamined. Both its theoretical appeal and the lack of attention it attracts are the reasons why I introduce Jonas’s theory of responsibility in this thesis.

As a contemporary of Arendt, Jonas is aware of the need to think of human beings as a

⁶⁵ Scheffler 2013, 45.

⁶⁶ Another interesting thought experiment on what would happen if humanity could no longer sustain itself can be seen in the film *Children of Men* (2006), in which human infertility has brought society to the brink of extinction.

collectivity, but he is more concerned about the need to consider the long-term impact of their collective actions. Jonas prompts us to explore our connection to future generations beyond mere membership in the human community, and encourages us to perceive this relationship through the lens of parental care and filial duty. In doing so, Jonas underscores the importance of recognizing our role as guardians of future generations, urging us to adopt a sense of stewardship like that of parents who safeguard the well-being of their children. Through this shift in perspective, we are invited to confront the ethical imperative of ensuring the sustainability and flourishing of future generations.

As mentioned in Chapter 1, Hans Jonas was one of the first philosophers to reflect deeply on the ethical implications of modern technological development. As early as the 1970s, he already argued that “care for future of mankind is the overruling duty of collective human action in the age of a technical civilization that has become ‘almighty’, if not in its productive then at least in its destructive potential”.⁶⁷ The subsequent research of Earth system science confirms the danger derived from the excessive dimensions of the scientific-technological-industrial civilization that Jonas discerns, as it shows that present human actions are capable of altering the climate for the time span up to the next 100,000 years, which is beyond the practical forecast of any mortal.⁶⁸

The change of human power as a fact has its own ethical significance and calls for a rethinking of previous theories. A prominent problem of them is that they can be ineffective to address the long-term consequences of (collective) human action. As Jonas asserts: “All enjoinders and maxims of traditional ethics, materially different as they may be, show this confinement to the immediate setting of the action”.⁶⁹ The consideration of whether an action is good or bad is thus determined in a short-term context, and no one is expected to be held accountable for the much later effects of what he has done. When modern technology introduces actions of a new scale and scope, especially the growing realm of collective action, such a framework focused on a proximate sphere can no longer fit and needs to be updated. Here Jonas’s critique echoes what Dale Jamieson suggests that the prevailing causal

⁶⁷ Jonas 1976, 77.

⁶⁸ Archer 2016, 9.

⁶⁹ Jonas 1984, 5.

mechanism in moral reasoning is ill-suited to the climate crisis.

The human capacity to leave long-term impacts on the natural system provided by contemporary climate research also justifies the ‘heuristic of fear’ that Jonas proposes: “We need today an imaginative-anticipatory heuristic of fear to lead us to the discovery of the duties, even the ethical principles, with which to meet the challenge of coming events”.⁷⁰ Heuristic fear refers to a precautionary attitude in decision-making, given the possible catastrophes caused by emerging technologies and the gap between the ability to predict and the power to act. Jonas argues that in the face of uncertainty about the long-term consequences of human actions, a prudent approach is to consider worst-case scenarios and prioritize precautionary measures that prevent potential harm to the human enterprise as a whole.⁷¹ In the face of the new condition when “the stakes are raised and the times are shortened in which the unavoidable (and no longer small) mistakes can be corrected”⁷², heuristic fear needs to be even more emphasized.

Besides the unprecedented human power and the subsequently required long-term perspective and heuristic fear, the existence of humankind as the first commandment is the third basic element of Jonas’s ethical theory in *The Imperative of Responsibility*. Unlike Scheffler’s approach that considers what would happen if humankind no longer exists, Jonas takes the existence and preservation of humankind as a general ethical axiom which, in most cases, does not need any further argument to support it. For example, he writes: “‘Existence of a mankind’ means simply: that there live men on earth; that they live well is the second commandment”, and the existence of humankind as a particular moral command “always stands behind the others as their common sanctioning ground”.⁷³ Besides, Jonas also believes that “the presence of man in the world had been a first and unquestionable given, from which

⁷⁰ Jonas 1976, 87.

⁷¹ Jonas is not positive about the technological optimism that believes in some kind of scientific breakthrough, such as the discovery of entirely new sources of energy. He writes: “The possibility indeed is not to be excluded after the lesson of the last hundred years, but to build upon it would be utterly irresponsible”. (Jonas 1984, 121) Jonas also warns against overestimating man’s ability to adapt to the new environment, which resonates with Arendt’s idea of man as a conditioned being in *The Human Condition*.

⁷² Jonas 1976, 90.

⁷³ Jonas 1981, 58.

all idea of obligation in human conduct started out”.⁷⁴ If we delve deeper into the question of why human existence should be deemed necessary, the answer lies in the ontological realm: It is because human existence embodies a sense of purposefulness and thus inherently possesses goodness. As can be seen:

“Since in him the principle of purposiveness has reached its highest and self-jeopardizing peak through the freedom to set himself ends and the power to carry them out, he himself becomes, in the name of that principle, the first object of his obligation, which we expressed in our ‘first imperative’: not to ruin (as he well can do) what nature has achieved in him by the way of his using it”.⁷⁵

Reflecting on Kant’s categorical imperative—act so that one can will that the maxim of his action be made the principle of a universal law — Jonas argues that the imperatives of responsibility in the modern age must have a broadened scope and should be formulated as: “Act so that the effects of your action are compatible with the permanence of genuine human life”, or negated articulated as: “Act so that the effects of your action are not destructive of the future possibility of that such”.⁷⁶ In the same paragraph, Jonas gives the simplified version of both the positive and negative imperatives: “In your present choices, include the future wholeness of man among the objects of your will” and “do not compromise the conditions for an indefinite continuation of humanity on earth”.⁷⁷

According to Jonas, Kant’s imperative expresses logical compatibility, but not moral approbation or revulsion: Since there is a group of agents (acting rational beings), the action one takes must be such that it can be conceived without self-contradiction as the general practice of that community. But a belief that the happiness of current generations can be achieved by sacrificing the interests of future generations has no self-contradiction and can potentially become a well-accepted rule. Therefore, Kant’s imperative must be updated. Jonas’s imperative demands a particular form of coherence: not just the consistency of action, but rather its foreseeable consequences in the ongoing realm of human influence in the future.

⁷⁴ Ibid, 10.

⁷⁵ Jonas 1984, 129-130. For Jonas’s existential interpretation of biological facts and why living nature is essentially good and worth caring for, see *The Phenomenon of Life* (2001).

⁷⁶ Ibid, 11.

⁷⁷ Ibid, 11.

Therefore, a temporal dimension is introduced into moral reasoning, and it expands upon the immediate logical processes of the Kantian imperative. The imperative of responsibility reverses the traditional dictum. Whereas Kant argues “you can because you ought”, Jonas suggests “you ought because you act”.⁷⁸ If the primacy in Kantian imperative is what the agent ought to be and to do, then the primacy in Jonas’s moral consideration is given to what the agent is already doing, to the capability that the agent objectively has, and to the duty that arises from the power to act and its temporal extension.

Jonas’s imperative is straightforward, but one point particularly worth exploring is his suggestion to take the parent-child relationship as an archetype when considering our responsibility to future generations. Here, “archetype it is in the genetic and typological respect, but also in the epistemological”.⁷⁹ Jonas argues that parental care for children is the timeless archetype of responsibility because it embodies a fundamental commitment to the well-being and future of another being. The physically vulnerable state of the newborns is the best example of the fragility of being, and it immanently and obviously demands care from their parents. The very presence of infants constitutes an ontological ought, since their “mere breathing uncontradictably addresses an ought to the world around, namely, to take care of him”.⁸⁰ The existence of newborns is precarious, vulnerable, and revocable because it has an in-between state, it is neither being-already-there nor being-not-yet, but still-have-to-come. If they cannot receive the immediate and continuous care of their parents, they will perish and thus fall into the state of non-existence. The vulnerability of the newborn “turns thus into the transitive ought-to-do of others who alone can help the claim continually to its right and make possible the gradual coming true of the teleological promise which it carries in itself from the first”.⁸¹

Immediate parental care may cease as children grow into full adulthood, but the responsibility for a life is still concerned. Parents are expected to provide good conditions such as education for their moral and intellectual development for the future well-being and development of

⁷⁸ Ibid, 128.

⁷⁹ Ibid, 130.

⁸⁰ Jonas 1981, 70.

⁸¹ Jonas 1984, 134.

children. Parental responsibility involves a comprehensive commitment to the growth and overall flourishing of children. Children will outgrow and outlive their parents, but “the pertinent responsibilities, in all of their particular, timebound tasks, somehow extend into the whole future of their charge, even though that future lies beyond their ken and control”.⁸² The reason is that, as parents, the more important task than ensuring the continuation of their children’s lives is never to foreclose the possibility of the continuation of humanity and the possibility of later generations also exercising such responsibility. As Jonas states: “Put epigrammatically: The possibility of there being responsibility in the world, which is bound to the existence of men, is of all objects of responsibility the first”.⁸³ The general principle is that “any total responsibility, with all its particular tasks and in all its single actions, is always responsible also for preserving, beyond its own termination, the possibility of responsible action in the future”.⁸⁴ This is the dimension of futurity inherent in parental care for the child.

Jonas’s theory develops the framework of collective responsibility to include a dimension of futurity. In addition to acknowledging our membership in the present human community, we are challenged to recognize the interconnectedness between ourselves and future generations. We are not only inhabitants of the present, but also stewards of the world that will be inherited by those who come after us. We assume the role of parents to future generations, with the obligation to ensure their well-being and the sustainability of the environment they will inherit. This responsibility extends beyond our immediate concerns to encompass the long-term implications of our actions, urging us to act with foresight and consideration for the legacy we leave behind.

In sum, from the universal phenomenon of parents assuming a profound obligation to nurture, protect, and guide their children, Jonas distinguishes a kind of responsibility that goes beyond mere self-interest or immediate gratification to include a forward-looking perspective that considers the long-term consequences of one’s actions on the lives of others. Jonas sees this parental responsibility as fundamental because it encapsulates the essence of ethical behavior: Acting with concern for the welfare and future of others, even when it requires sacrifice or

⁸² Jonas 1981, 62.

⁸³ Ibid, 58.

⁸⁴ Ibid, 65.

presents unforeseen challenges. In this way, parental care serves as a model for broader ethical responsibilities within society, emphasizing the importance of foresight, compassion, and commitment to the well-being of future generations.

Despite its potential to strengthen the existing framework of collective responsibility, there are some potential critiques of Hans Jonas's theory that deserve consideration.

First of all, we may question the stability and universality of the parent-child relationship as the archetype of responsibility. As Walter Weisskopf comments: "The parent-child relationship is, like everything human, equally ambiguous. The facts about child murder, neglected, abandonment, abuse, mistreatment, and torture make this obvious".⁸⁵ Besides, many people who prefer an individualistic lifestyle do not even enjoy being parents in a family relationship. My response to this critique is that despite the exceptional circumstances, the parent-child relationship remains a ubiquitous human experience and has its unique emotional power to motivate people to take actions. To be sure, not all parents and children maintain a good caring relationship with each other, and the reluctance to procreate is increasingly common in modern society, it is also undeniable that most people have experienced parental care in their early lives, and they share some level of intimacy or at least a nurturing bond with their own parents. Those interactions between human beings and their parents represents their first foray into the realm of ethics, a concept to which the majority of us are instinctively drawn. Hence, I believe that the parent-child relationship can still be a solid ground on which the theory of responsibility to be built.

The second potential critique might raise the question that how we as the current temporal cohort can imagine ourselves as the distant parents of future generations, especially in cases where we have no real blood relationship with them. Different from the physically distant people who we can still listen to, the temporally distant ones can not convey their messages back to us and thereby it is more difficult for us to develop the compassion and sense of responsibility needed to protect their interests via climate actions. Nevertheless, I contend that the argument in the chapter 2 can help us overcome this problem, because if people are

⁸⁵ Weisskopf 1983, 107.

convinced by the expanded idea of human community and truly believe that we are all connected to each other in a fundamental sense, it will be easier for us to develop an empathetic and compassionate feeling for those living in the future, even if we can not directly communicate with them. Besides, I do not think that the objective difficulty in imagining a connection with the later generations diminishes the appeal of Jonas's theory, because one of the most important points that Jonas tries to propose is an active moral attitude. Unlike other responsibility theories, Jonas argues for substantive rather than formal responsibility.⁸⁶ While formal responsibility follows from causality and intent, substantive responsibility follows simply from the fact that agents have superior power and knowledge over others. For instance, parents are responsible for their children not because they harmed them and must be held responsible, but simply because they have the power to ensure the children's welfare and are naturally expected to do so. To be sure, in this process, an active moral attitude that "I realize the consequence my actions may have and I would like to be responsible for it" plays a crucial role. Similarly, with the help of modern science and technology, (contemporary) human beings have gained unprecedented power, which creates a corresponding responsibility for others, including future generations: "The well-being, the interest, the fate of others has.....come under my care, which means that my control over it involves at the same time my obligation for it".⁸⁷ Jonas urges us to take this substantive responsibility and be active subjects in the ethical relationship. The shift in focus is the reason why Jonas's theory is highly relevant nowadays given the emerging circumstances of the Anthropocene.

The third critique stems from concerns about the paternalism that Jonas's theory might imply. Jonas argues that the parent-child relationship can be bridged with the statesman-citizen relationship because the three characteristics of parental care: wholeness, continuity, and futurity, also manifest themselves in the political responsibility that a statesman should fulfill for his citizens.⁸⁸ Richard Bernstein points out that this can create the danger of a

⁸⁶ For Jonas's differentiation of substantive responsibility and formal responsibility, see "III.Theory of Responsibility" in Jonas 1981, 51-53 and "II.Theory of Responsibility: First Distinctions" in Jonas 1984, 90-97.

⁸⁷ Jonas 1981, 53.

⁸⁸ For Jonas's comparison between the parent-child relationship and the statesman-citizen relationship, see

paternalistic kind of statesmanship. Although Jonas conceptualizes future generations as a category of coming into existence for the sake of philosophical discussion, the most prominent political dynamic in democratic polity is still between existing autonomous and independent human beings with their fellow human beings. Therefore, “a theory of political responsibility based primarily on the paradigm of parental responsibility” is indeed questionable.⁸⁹ Bernstein presents a legitimate concern, but I do not think it poses a serious challenge to the integrity of Jonas’s theory. First of all, with respect to the interpretation on Jonas’s writing, expecting politicians to adopt a kind of parenting attitude toward citizens does not necessarily entail a call for authoritarianism or even totalitarianism. The focus of the imperative of responsibility is not on strengthening the concentration of power among rulers, but on demanding that rulers bear the long-term interests of their subjects in mind. Second, even we interpret Jonas’s words in a strong sense that the current democracy rationale needs to be reflected and updated, this is still a reasonable proposal. After all, the limitations of democracy have been demonstrated in the face of the environmental crisis. For example, the democratic electoral system and the freedom of deliberation have the downside that voters may be more concerned with the present, short-term interest than with the needs of distant future generations. Therefore, rethinking Jonas’s proposal may be a good opportunity to reflect on the problems of democracy in light of the climate crisis.

3.3 Chapter Summary

This chapter follows the last one and added a temporal dimension to the framework of collective responsibility. It argued that we are collectively responsible not only for the current cohort of human beings across different political communities, but also for subsequent generations in the future. First, I discussed the moral agency of later generations and the value of the continuation of humanity. Then I focussed on Hans Jonas’s theory of responsibility, in particular his imperative of responsibility and his thesis that parental care for a child is the

“VIII. Parental and Political Responsibility: Both are ‘Total’” in Jonas 1981, 59-62 and “III. Theory of Responsibility: Parent and Statesman as Eminent Paradigms” in Jonas 1984, 98-108.

⁸⁹ Bernstein 1995, 18. A more radical critique of Jonas’s theory on this point comes from Richard Wolin, who asserts that “Jonas’s willingness to contemplate seriously the merits of political autocracy is disconcerting, as is the alacrity with which he is willing to dismiss the virtues of political liberalism”. See Wolin 2001, 129.

archetype of all responsibility, to argue that it is helpful to recognize that we have a duty to future generations as their distant parents (common ancestors). As I argued, Jonas's parental model strengthens the theoretical appeal of collective responsibility and provides a compelling motivation for people to act more decisively in the face of climate change.

Chapter 4: Potential objections and replies

This chapter is dedicated to addressing potential objections to some arguments in this thesis. Firstly, there may be skepticism regarding the legitimacy of the proposal advocating for the consideration of human beings as universal species agents in the Anthropocene, owing to the fact how fragmented and unequal the human world is in reality. For example, Andreas Malm and Alf Hornborg have contended that the discourse of the Anthropocene is flawed because it “blatantly overlooks the realities of differentiated vulnerability on all scales of human society”, and “if climate change represents a form of apocalypse, it is not universal, but uneven and combined: the species is as much an abstraction at the end of the line as at the source”.⁹⁰ In response to such critiques of Anthropocene discourse, numerous scholars have proposed alternative terms such as econocene and technocene to underscore specific causal factors driving environmental crises.⁹¹ Among these alternatives, the term Capitalocene has gained considerable influence. Coined by Jason Moore, the Capitalocene concept “signifies capitalism as a way of organizing nature — — as a multispecies, situated, capitalist world-ecology”.⁹² Moore argues that while other terms may serve useful purposes, none capture the fundamental historical trajectory of modern world history as the age of capital which is characterized by the interplay of power, capital, and nature within a global ecological framework.

Although the first objection directly challenges the legitimacy of the discourse regarding the Anthropocene and species thinking, in a deeper sense it is actually questioning the justification of arguing for a collective thinking prior to the differentiated duty (the duty for capitalism instead of other social institutions; the duty for more developed countries rather than other states, etc.). In order to address this question, I would like to introduce the dilemma between planet and world conceptualized by Chakrabarty in newly published book *One Planet, Many Worlds*.⁹³ Planet is the Earth. It represents the one and unitary system on which

⁹⁰ Malm & Hornborg 2014, 66-67.

⁹¹ For the introduction of econocene, see Norgaard 2013. For the introduction of technocene, see Hornborg 2015.

⁹² Moore 2016, 6.

⁹³ Regarding the terms that Chakrabarty uses in addressing climate change, planet and world have been discussed above. Here, world overlaps with globe because they are both human-centered concepts, but world refers more directly to the different political communities in which actors can make conflicting

human beings inhabit. The world, on the other hand, refers to the many and differentiated political communities, which have their own agenda and priority. Climate change brings up the clash between the planet and the world because it is inherently a planetary issue: we share one atmosphere, and the greenhouse gas emissions from one region can have far-reaching and cumulative consequences on climate patterns, ecosystems, and communities worldwide. As Chakrabarty writes:

“The ‘carbon budgets’ for humanity that the Intergovernmental Panel on Climate Change (IPCC) publishes from time to time are based on the idea that there is one atmosphere and one planet, a planetary climate system that can be treated as a whole and a single Earth system supporting life”.⁹⁴

However, as soon as a collective action on a global scale is called for, it will encounter resistance from the worlds: For instance, while the Intergovernmental Panel on Climate Change (IPCC) proposal to limit warming to 1.5°C speaks for the planet, the reluctance of states to do so represents the concerns of the worlds. At the heart of the debate is a struggle to reach the agreement about who is “we”: “The problem of the ‘we’ is, in fact, the most critical aspect of our current planetary crisis. There is no one ‘we’ to respond to a planet or an Earth system that is, by the contingency of Earth’s pasts, one”.⁹⁵

The tension between the planet and the world revealed by Chakrabarty is a great conceptual space that accommodates the debates over the Anthropocene and the Capitalocene, and the collective thinking and differentiated duty. I concur with Chakrabarty’s standpoint that we must prioritize climate change, the planet issues, over short-term political discussions. There is no denying that the specific obligations of different actors should be different, but there must be a basic agreement that we are all substantially (in Jonas’s words) responsible for preserving a habitable environment for human beings, and a shared commitment to take actions.⁹⁶ Despite the enduring inequalities perpetuated by historical injustices such as colonialism and capitalism, it is more important that we collaborate collectively to address climate change. This is why I advocate for a broad, collective approach to understanding

decisions against each other.

⁹⁴ Chakrabarty 2023, 7.

⁹⁵ Ibid, 14.

⁹⁶ A famous expression of such commitment was once made by the Canadian diplomat Maurice Strong in his opening speech at the Rio Summit in 1992: “No place on the planet could remain an island of affluence in a sea of misery. We are either going to save the world or no one will be saved.” See Strong 1992.

human actions in climate change, instead that we should put more efforts toward differentiation which entails pinpointing more specific actors and their contributions to the climate crisis. Although focusing on the nuanced roles of various entities can help foster more targeted strategies for addressing environmental challenges, it is necessary to first of all establish and reinforce a fundamental understanding, namely in the planetary crisis we are all connected to each other: Because we will ultimately bear the consequences together when global warming's doomsday arrives, and because each individual action contributes meaningfully to the larger environmental context.

The second potential objection might be: does collective responsibility have a solid practical grounding and can be translated into action? My answer is that I believe in the cooperative potential of humanity, but collective thinking needs more promotion and acceptance by different actors. In the short history of the modern age, there are some precious moments when humanity joined hands and achieved common goals. For example, the eradication of smallpox through global efforts led by the World Health Organization and the phasing out of ozone-depleting substances under the Montreal Protocol.⁹⁷ Although the Paris Agreement falls short of its expected mission, it still contributes to climate justice by limiting the rise of global temperatures, strengthening adaptation efforts, and providing financial support to developing countries.⁹⁸ In the recent example of human beings combatting with COVID-19, although a coordinated effort to address the pandemic through a formal institution such as the UN Security Council is lacking, the global health governance in practice “has proven more complex and durable and has demonstrated its potential to facilitate cooperation that is diverse and inclusive”.⁹⁹ During the pandemic, what has been achieved can not be underestimated. The coordination at least on regional levels prevented a event like the historical Black Plague from happening again. All of these cases confirm the collaborative capacity of humankind.

The last potential objection is that the theory of collective responsibility remains largely anthropocentric, and still places humans (the preservation of humanity) in a central position.

⁹⁷ See “Smallpox” at https://www.who.int/health-topics/smallpox#tab=tab_1 and “About Montreal Protocol” at <https://www.unep.org/ozonaction/who-we-are/about-montreal-protocol>.

⁹⁸ See “The Paris Agreement” on <https://unfccc.int/process-and-meetings/the-paris-agreement>.

⁹⁹ Davies 2022, 244.

In general, there are two ways when we consider any environmental ethics: (1) We need to care about nature system because it is good for the preservation and well-being of humanity, (2) we need to care about nature for its own sake. The first approach is anthropocentric while the second one is not. To be sure, the theory of collective responsibility proposed in this thesis is anthropocentric, because it is established on the premise that humankind ought to exist (in Jonas's words) and the subjects that are expected to act are human beings to a large extent. However, I argue that this anthropocentric character does not invalidate the theory because first of all, in order to address climate change (a human-induced phenomenon), we don't need to include the environment or other animals as intrinsically valuable entities in our ethical thinking. Second, a large part of what has been discussed in this thesis is about the very possibility and motivation for collective responsibility, and these arguments can still be useful when there is a need to address the issue of anthropocentrism and how the natural world can be protected as a holistic system in the future.

I expect to explore the possibility of developing a non-anthropocentric theory in environmental ethics, and ask how we can include the non-human realm, namely the earth and its natural system, in the scope of ethics. Since human beings can not be totally removed from the system of Earth, perhaps one direction would be to follow the horizon of geological time and planetary thinking outlined by Chakrabarty and explore whether we can develop a kind of deep stewardship that humans take for all life on the planet. With stewardship "for that which we have inherited is expanded to include the planet as our common home", the relationship between the human race and the Earth as a system in the modern age is to be ontologically reflected upon and interrogated.¹⁰⁰

¹⁰⁰ Kattago 2024, 8.

Conclusion

The thesis is written first with the awareness that we are entering a new era that is unprecedented in the history of the Earth and that can be most profoundly characterized by the continuing human-caused warming of the planet. For geoscientists, this new era is called the Anthropocene.

The concept of the Anthropocene reveals the far-reaching human impact on the Earth and its system (mostly negative) and raises questions for philosophy, as current moral and political theories are exposed as impotent to promote diverse and effective actions to combat climate change. Various scholars, including Hans Jonas, Stephen Gardiner, Dale Jamieson, and Dipesh Chakrabarty, contribute to the discussion of what is missing from the theories of the past and what an adequate ethical theory for the new age should look like. By engaging with their critiques, I attempt to outline a theory of collective responsibility that can transcend the boundaries of different political communities and generations to address anthropogenic climate change.

Following Chakrabarty's path of philosophical inquiry, certain authors such as Immanuel Kant, Hannah Arendt, and Hans Jonas came to my attention. While Chakrabarty consults them to open a pre-political space for addressing climate change in a broad way, I decided to delve deeper into their work in order to interpret and extend their theories to the question of collective responsibility in the Anthropocene.

Reading canonical authors such as Kant, Arendt, and Hans Jonas, who have traditionally been outside the scope of scholars writing about climate change, I try to show that what they have in common is a kind of collective thinking that goes beyond the realm of individual relations. More explicitly, they argue that we have a shared responsibility for the consequences of humanity's collective actions. This responsibility should transcend the boundaries between different political communities and take into account the long-term interests of future generations.

The notion of collective responsibility in the Anthropocene has its roots in the authors I engage with, most directly in Arendt's theory of political responsibility. Kant's idea of

universal hospitality and Jonas's imperative of responsibility contribute to its construction. Attuned to the predicament of environmental catastrophe, collective responsibility in the Anthropocene is articulated to provide a normative language in which the climate crisis can be properly framed. It hopes to reorient our conception of human collectivity, broaden the horizons of our ethical thinking, and help future climate action transcend the barriers created by the boundaries of different political communities and generations.

In summary, this thesis aims to provide an ethical rationale for why humans are responsible for the crisis of the Anthropocene. It is hoped that through a dialogue with the classical authors, a valid and convincing philosophical account of how humanity should live with climate change has been demonstrated.

In his last public lecture, given in Munich on May 25, 1992, Hans Jonas reviewed the development of philosophy in the 20th century and pointed out that "the reconciliation between our presumptuous special status as humans and the universe as a whole, which is the source of our life, is becoming a central concern of philosophy".¹⁰¹ According to Jonas, philosophy must do its best to search for an ideal theory to guide our actions. It is my hope that this thesis is written in the service of that ambition.

¹⁰¹ Jonas 1994, 826.

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