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Collective Domination. Kantian Political Theory and Anthropogenic Climate Change

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I.

Introduction

When it comes to anthropogenic climate change, urgency seems to suggest that we address immediately the tricky practical questions: How can we bring about effective climate action on a global scale? Who bears responsibility for initiating the urgently needed changes? What is the role of nation-states and the international community? What about sub-state actors such as companies and individual agents? Given the scale and the maddening complexity of anthropogenic climate change, it comes as no surprise that we are still far from solving these issues. The latest international attempt to cope with anthropogenic climate change—the Paris Agreement—still has to prove its effectiveness. It is true that the shift from a legally binding structure as it was enshrined in the Kyoto Protocol to a voluntary scheme was welcomed by many as an important step forward.¹ But as of yet we have at least some reason to caution our optimism.² In this dissertation, I want to raise a different set of questions, questions that regard the adequate framing of anthropogenic climate change. Given the magnitude of the practical tasks that lie before us, pondering these questions may seem nowhere close to an adequate response. Is it not a matter of mere scholarly idiosyncrasy to determine which terms should describe the emergency? After all, it is an emergency.³

Indeed, I do not want to question the magnitude of the challenge posed by anthropogenic climate change. What I do claim, however, is that questions regarding the nature and the framing of anthropogenic climate change are all but secondary. On the contrary, they play a pivotal role in determining how we seek to solve the complicated practical questions in the first place. These questions have too easily been eclipsed by the sense of urgency that surrounds the issue of anthropogenic climate change, inside as well as outside academia, with the effect that much of the theorising has relied upon unquestioned

¹ For an example, see Falkner 2016.

² There is, on the one hand, the refusal of the United States to participate in any kind of concerted action on anthropogenic climate change that culminated in the recent withdrawal from the Paris Agreement (see <https://www.state.gov/on-the-u-s-withdrawal-from-the-paris-agreement/>, last access: 8 January 2020). On the other hand, there is the plain fact that the nationally determined contributions (NDCs)—that is, the voluntary contributions states have so far ‘committed’ to—would lead to a global warming until the end of this century of approximately 3.2 °C, which is double the ambitious aim declared in the Paris Agreement (UNEP 2018, XIV). It is still to be determined, of course, whether the parties will adhere to their voluntary pledges.

³ As of now, climateemergencydeclaration.org counts ‘1,261 climate emergency declarations in jurisdictions and local governments’ (climateemergencydeclaration.org, last access: 8 January 2020) all over the world that cover ‘798 million citizens’ (climateemergencydeclaration.org, last access: 8 January 2020).

answers. Simply because we do not tackle those questions head-on does, however, not mean they do not play an essential and even decisive role in our theorising. It means only that they play this role hiddenly. In this theoretical darkness we may stumble into answers that would not seem convincing at all if looked at in daylight. This thesis is motivated by one such question, perhaps the most fundamental question of its kind. I call it the disturbing question. It is the aim of the disturbing question to make explicit the normative commitments that lie at the heart of the omnipresent claims that anthropogenic climate change poses an unparalleled challenge to humanity in one way or another. So, what exactly is disturbing about anthropogenic climate change?

The disturbing question may seem to be the perfect example of those questions that can wait—or perhaps even must wait—until we solve all of the urgent practical issues. Is it not the case—as Hegel famously claimed—that ‘the owl of Minerva begins its flight only with the onset of dusk’⁴? That is, is it not true that it is fate of philosophers to work the night shift after the fact, while it is practitioners to whom the daylight belongs? Not only in these general terms may philosophy appear to be ‘out of its remit’⁵; also, as such, the disturbing question may seem misplaced. Raising it may indeed seem disturbing itself, for there appears to be an all-too-obvious answer—or even many answers—at hand. Take the massive *human suffering* caused by anthropogenic climate change, or its adverse effects on *human welfare*, or its infliction of untold *harm*, or the violation of *human rights*, or the blocking of *human flourishing*, and so on. You name it; all of these seem perfectly convincing answers for why anthropogenic climate change is indeed disturbing. Question answered.

It is the aim of this dissertation to demonstrate that the current situation is more difficult than it may seem. Indeed, I shall argue that the established responses seriously fail to answer the disturbing question. The adequate framing of the challenge of anthropogenic climate change reveals that these responses are unfit for answering the disturbing question due to their very nature as *ethical theories*. What we need is a different kind of approach. It is my key contention that only a *normative political theory* can solve the distinct kind of challenge posed by anthropogenic climate change, while it is a *Kantian political theory* that provides an especially convincing answer to this challenge. In line with such an approach,

⁴ Hegel 1991 [1820], 23.

⁵ Oksala 2016, 1.

the main thesis of this dissertation asserts that we must conceive of anthropogenic climate change as a form of *collective domination*. The three chapters of this dissertation are dedicated to vindicating the main thesis and defending it against established approaches.

It is the core tenet of a Kantian political theory that overcoming relationships of domination requires the establishment of structures of transnational democracy. In this sense, it is a strand of republican thinking.⁶ This allows me to return to my claim of the immediate relevance of the disturbing question to seemingly purely practical issues. Over the recent years, a new scepticism about democracy has gained important ground. More and more people—from prominent figures in the sciences⁷, to climate activists, to scholars working in climate ethics⁸—seem prepared to blame democracy for the glaring lack of climate action. A recent and striking example of such scepticism was voiced by Roger Hallam, the climate activist and co-founder of *Extinction Rebellion* (XR). After emphasising the unprecedented magnitude of the challenge of anthropogenic climate change and diagnosing a widespread and morally appalling apathy in an interview with the German weekly *Der Spiegel*, he concludes that

'[w]hen society acts so immoral, democracy becomes irrelevant'.⁹

I contend that it is this kind of widely shared reasoning that stands behind the adduced scepticism about democracy. It is the conviction that democracy had been forfeiting its legitimacy by not delivering on obvious and uncontentious moral demands until it eventually has become or is about to become disposable. Given this take on democracy, it is not surprising to find that political action or even demands for democratisation are hardly to be found in the context of anthropogenic climate change. Interestingly, this contrasts with the origins of the environmental movements in the 1970s and 1980s, which were strongly opposed to antidemocratic forms of governance, such as politicians resorting to claims of expert knowledge.¹⁰ Today, the roles are almost reversed. To many, it is precisely the support of expert knowledge that seems to allow them to circumvent democratic procedures or at least not to deem them essential to solving the challenge of anthropogenic climate change.

⁶ For an overview on contemporary republican thinking, see Niederberger/Schink 2013.

⁷ Stehr 2016.

⁸ Gehrman/Niederberger 2020.

⁹ See <https://www.spiegel.de/wissenschaft/technik/extinction-rebellion-gruender-roger-hallam-wenn-eine-gesellschaft-so-unmoralisch-handelt-wird-demokratie-irrelevant-a-1286561.html> (last access: 3. December 2019), my translation.

¹⁰ See Siller 2010.

It is against this backdrop that the huge importance of raising the disturbing question to seemingly rather practical issues of climate action is thrown into sharp relief. Conceiving of anthropogenic climate change as a form of collective domination calls in many respects for a reorientation of our climate activism. The widely welcomed surge of private governance in recent years,¹¹ in tandem with a general shift from the international political arena to sub-state actors,¹² may not appear as a step forwards from the perspective of a Kantian political theory. Indeed, it may even appear as a step backwards. A Kantian political theory would demand a renewed focus on political institutions and a democratisation of the international arena. This would not, however, be because it is a more efficient way to realise some allegedly obvious and uncontentious pre-politically determined moral goals, but only because by establishing those transnational democratic structures, no one is subject to the view and will of someone else—however important and morally imperative they may seem. Only then can the fundamental political wrong of domination be overcome. To put it starkly once again: While being absorbed in restless efforts to overcome the wrong of anthropogenic climate change as we conceive it, we might actually be complicit in perpetuating long-standing and deeply engrained structures of global domination that found their most recent expression in anthropogenic climate change. From there, a Kantian political theory of anthropogenic climate change can be read as adding a new facet to a critique that was put forward as early as 1991 by Anil Agarwal and Sunita Narain and that was directed at what they defiantly labelled as ‘environmental colonialism’^{13, 14}

It is the political wrong of domination with its various faces that a Kantian political theory is geared towards identifying. The history of colonialism provides us with many obvious and only poorly disguised faces of oppression through which the will of the powerful is imposed. In this dissertation, I want to demonstrate that our unprecedented ability to change the climate and, in doing so, seriously affect the lives of numerous people future and present, is another face of oppression, even though less apparently so. A Kantian

¹¹ For an overview on the increasing role of private initiatives when it comes to environmental governance, see Clapp 1998 and Pattberg 2007; with a focus on anthropogenic climate change, see Andonova et al. 2009, Jordan et al. 2015, Van der Ven et al. 2017. For analyses of the various actors in the field of climate governance, see Falkner 2013, Part III. The broadly welcoming gesture can be exemplified by the key role that non-state actors increasingly play at the Conferences of the Parties (COPs) to the United Nations Framework Convention on Climate Change (UNFCCC) (see Bäckstrand et al. 2017). For a positive assessment of these processes see, for example, Chan et al. 2015.

¹² This move to the individual is mirrored in climate ethics by a shift away from the political sphere to individual agents and their duties. I engage with the debate on individual duties in *Chapter Three*. For a scathing critique of this general trend of ‘individualisation’, see Maniates 2001.

¹³ Agarwal/Narain 2003 [1991], 1.

¹⁴ See Agarwal/Narain 2003 [1991].

political theory of anthropogenic climate change has so far not been developed. It is the main contribution of this dissertation to develop such a theory. So much for the appetiser; before starting with the main course, let me briefly summarise how I will undertake this.

It is the aim of *Chapter One* of this dissertation to demonstrate why a Kantian political theory is not simply another approach to the disturbingness of anthropogenic climate change. I propose two lines of critique for why the established normative theories seriously fail to answer the disturbing question such as posed by anthropogenic climate change. The first challenge arises internally. I reveal that the established normative theories rely on an analysis of the disturbingness of anthropogenic climate change that is incorrect—and is so by their own lights. The reason for this is that anthropogenic climate change is, in many respects, a distinct kind of wrong from more traditional wrongs. Many argue that it is indeed the paradigm case for profound changes in the *conditio humana* that have occurred over the past century. Within an ethical perspective, this distinctiveness translates into a challenge to their shared deterministic framework; that is, the established normative theories cannot account for the fact that anthropogenic climate change is a probabilistic type of wrong—an instance of risk imposition—and not a deterministic type of wrong. In putting forward this challenge, I want to make a first step in convincing the reader that answering the disturbing question is indeed not as straightforward as she might have thought. This prepares the ground for the second challenge, which arises externally and challenges ethical theories *as such*. I argue that ethical theories are unfit for answering questions regarding the legitimacy of force which inevitably arise under the conditions of *disagreement* over normative ideals. As the very embodiments of specific normative ideals, ethical theories necessarily start from the assumption of *agreement*. Therefore, establishing anthropogenic climate change as a setting for unavoidable disagreement over normative ideals calls for a different type of normative theory, one that can answer the issues that arise with disagreement. The most important issue is the challenge of the legitimate use of force. It is my contention that political theory, as opposed to ethical theory, is specifically tailored to operate under the conditions of disagreement. A Kantian political theory provides an especially compelling way to do so.

Chapter Two begins by providing an outline of such a Kantian political theory. I do so because the task of this and the next chapter is to develop the building blocks of a Kantian political theory of anthropogenic climate change. That a Kantian political theory has so

far not been applied to anthropogenic climate change would be of no importance if we could simply make use of the existing versions. However, I argue that this is not possible, because anthropogenic climate change is a paradigmatic expression of the very changes that were already a considerable internal challenge to the established ethical theories, as described in *Chapter One*. Therefore, the question arises of whether a Kantian political theory can be modified to apply to anthropogenic climate change. It is the aim of the second chapter to demonstrate that the normative core of a Kantian political theory—a specific notion of domination—can indeed be applied to the relations that are established among various agents by the possibility of causing significant changes in the climate. I do so by engaging with a burgeoning literature in the social sciences on the phenomenon of forced climate displacement. I cannot line up on the empirical side of the claim that people are forced to migrate by changes in the climate. Establishing the *intelligibility* of this idea, however, falls squarely in the field of philosophy. For what precisely do we want to say when we claim that someone is indeed *forced* by climatic changes into migrating—especially given that there is no direct physical interference to speak of? Does it even make any sense at all? I argue that it does. Answering this question yields the first building block of a Kantian political theory, for we are now in a position to understand the relations that are established among agents via their ability to change the climate as exerting *force* on each other. It is for this reason that human-induced climatic changes can be viewed as a specific form of prevalence of one will over another and, thus, as a specific instantiation of a relationship of domination.

In *Chapter Three*, I tackle another issue of the applicability of a Kantian notion of domination to the changed circumstances of action that define anthropogenic climate change. While traditional forms of domination occurred between clearly identifiable individuals and in relatively direct ways, this seems not to be true for anthropogenic climate change. Here, no individual agent, as such, can exert this kind of influence over other agents. Only the combined actions of many agents are capable of bringing about climatic changes that force others to migrate. Forced climate displacement is nothing an individual could bring about alone; it is a result of actions taken by all of us together. Phrased differently, anthropogenic climate change is not individual domination but a form of *collective* domination. However, many people make quite the opposite claims. They argue that anthropogenic climate change can indeed be analysed as a form of individual wrongdoing. It

is their contention that emitting greenhouse gases that contribute to global warming, and thereby to harmful outcomes, can be demonstrated to be wrong *along the same lines* as, for example, a kick in the shins or any other trivial infliction of harm by one agent to another can be characterised as wrong. The only difference, however insignificant, between the two is the complexity of the causal chains that link each of the two actions to the corresponding harmful outcome. In *Chapter Three*, I develop an argument that reveals why this assumption is incorrect because of a qualitative feature of the causal chain that so far has been overlooked in the debate. It is that the emission of greenhouse gases by individual agents *cannot* be assimilated to kicks in the shins. While a kick in the shins is an individual wrong, anthropogenic climate change constitutes a collective wrong.

As will become clear over the course of the three chapters, this dissertation contributes to a number of vivid and ongoing debates. Let me end by briefly mentioning one of the debates that stands behind many of the arguments I propose and to which I have alluded previously. This debate is centred around the notion of the Anthropocene, that is, the age of man. The atmospheric scientist Paul Crutzen and others recently sounded the bell for this new geological era of the Earth.¹⁵ It is their contention that over the course of the last century, humanity has gained an unprecedented as well as decisive role in shaping the natural processes on Earth as a result of constant and rapid technological progress. It is in this context that anthropogenic climate change is often adduced as *the* paradigm case that exemplifies the changed circumstances of action resulting from the significant power that humanity now wields. Many philosophers argue that these changes directly affect our normative theories as well.¹⁶ I believe they are right. While it was unthinkable for most of human existence on Earth that our individual actions could contribute to outcomes that would affect in any meaningful way someone living on the other side of the Earth, this is commonly accepted now. I contend that these changes in the circumstances of action necessitate a restructuring and modification of our established thinking. The challenges to the established normative theories as well as the need to develop a notion of collective domination can be read as a contribution to this emerging debate on '[t]he politics of the Anthropocene'.¹⁷

¹⁵ Crutzen et al. 2011.

¹⁶ For a seminal discussion of the modifications that may be necessary, see Parfit 1984, 67–86. The underlying changes that necessitate these modifications are also widely acknowledged. See, for example, Attfield 2009, Gardiner 2006, Jamieson 1993, Martinsen/Seibt 2013. For a general account of the changes needed, see, for example, Kutz 2008.

¹⁷ Dryzek/Pickering 2018.

II.

Chapter One. Ethical Theory, Risk Imposition and Political Theory

The philosophical debate on climate change emerged in the wake of international negotiations on a climate treaty at the beginning of the 1990s. The framework for discussing such a legally binding and enforceable agreement was eventually established in 1992 at the United Nations Conference on Environment and Development in Rio de Janeiro, Brazil. The declared aim of the so-called United Nations Framework Convention on Climate Change (UNFCCC) was to curb global greenhouse gas emissions and stabilise 'greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system'¹⁸. The following years saw intense discussions on the question of how to fairly distribute the burdens associated with reducing global greenhouse gas emissions. This has also been the first question widely discussed in academic circles later dubbed *climate ethics*¹⁹. A first step towards a legally binding answer was eventually reached with the adoption of the Kyoto Protocol in 1997.²⁰ More recently, however, a different question has drawn increasing attention. Given the rather bleak outlook for effective global action on anthropogenic climate change, authors started working on the issue of individual climate duties. They wanted to know what our individual climate duties are given the absence of a global treaty on emission reductions and an active climate policy at the state level. I refer to the first subfield of climate ethics as *distributive climate justice* and to the second debate as *individual climate ethics*.²¹

I will say something on both of these debates. The leading question of this dissertation is, however, a different one. This question has hardly been raised in the philosophical debate on anthropogenic climate change, at least explicitly. When it was raised, it was

¹⁸ UNFCCC 1992, Art. 2.

¹⁹ See the anthology entitled 'Climate Ethics' (Caney et al. 2010) by Simon Caney, Stephen M. Gardiner, Dale Jamieson and Henry Shue from 2010. It brings together key contributions to the philosophical debate on anthropogenic climate change from its beginnings in the early 1990s up to the date of its publication.

²⁰ For an excellent overview on the history of the international negotiations on anthropogenic climate change from its early days onwards until the end of the last century, see Bodansky 2001. For an overview focusing on the Kyoto Protocol see Gupta 2010. Since much has happened. The Kyoto Protocol is considered a failure by many. See exemplarily for this view Falkner 2016. This widely shared belief eventually led to the adoption of a very different kind of approach as it is implicit in the setting of the Paris Agreement. Instead of legally binding the focus is now voluntary agreements. Whether it is indeed a better approach is still to be seen. So far, the international community is far from meeting its aim of limiting the temperature rise to 2 °C or even the more ambitious aim of 1,5 °C (see Paris Agreement 2015, Art. 2(1)a). Given current ambitions, the Earth is rather heading for a warming of 3,2 °C until the end of this century (UNEP 2018, XIV).

²¹ I borrow this terminology from Fragnière 2016, 798.

dispensed with quickly. The question I want to raise is the following: What is so disturbing about anthropogenic climate change? It may seem to the reader, as it does to many working in the field of climate ethics, that an obvious answer must be at hand, or even many. These include the massive *human suffering* caused by anthropogenic climate change, or its adverse effects on *human welfare*, or its infliction of untold *harm*, or the violation of *human rights*, or the blocking of *human flourishing*. All these normative approaches are thought to have an easy time explaining why anthropogenic climate change is disturbing. This might also be one of the main reasons why this question has not been targeted so far, next to the impression that asking it is almost unduly academic, even hair-splitting as it clearly stands in the way of the urgent action anthropogenic climate change asks for. In the first chapter I challenge these seemingly apparent answers to the disturbingness of anthropogenic climate change on two grounds.

Firstly, I suggest that anthropogenic climate change is a distinct type of wrong from the more traditional types of wrongdoing to which we are accustomed. That is, anthropogenic climate change is a case of risk imposition. Climate ethics in their current form are, however, unfit for dealing with this type of wrongdoing. Proposals by other ethicists that explicitly address risk imposition also offer little promise. I then indicate a possible solution to the paradox that risk imposition presents. Thus far, however, no theoretical device can modify climate ethics in a way that accounts for the wrong of anthropogenic climate change. In showing this, I aim to encourage those working on anthropogenic climate change to see beyond the well-established normative theories. Secondly, I claim that climate ethics must struggle with an even more serious challenge to their accounts of the disturbingness of anthropogenic climate change, a challenge that renders ethical approaches to anthropogenic climate change, as such, unconvincing. I call this the challenge of the legitimate use of force. I argue that climate ethics are by their very nature unfit for dealing with this challenge. While climate ethics may be helpful to understand the wrongs suffered in spatially and temporarily localised settings where people agree on shared normative grounds, they are inadequate for circumstances where these conditions do not hold. Anthropogenic climate change, however, is *the* paradigm example for the changed circumstances of action in which these shared grounds are missing. It is abundantly clear from discussions on the international arena and on climate ethics that no agreement on any normative principles can be found on such a scale. This inability to reach an agreement

gives rise to a setting that is defined by conflict and force. I contend that these conditions necessitate that anthropogenic climate change have a distinctly political, not an ethical, approach.

I briefly want to shed a methodological light on the first chapter. The first line of critique points out a deficit that arises *within* an ethical approach to anthropogenic climate change. Therefore, the first line of critique is *internal*, as it does not question the climate ethics approach as such. The second critique, however, does exactly this. It questions the adequacy of an ethical approach to anthropogenic climate change. Therefore, I call this line of critique *external*. The external critique stresses that we cannot adequately parse the disturbingness of anthropogenic climate change by applying ethical theories to anthropogenic climate change. While this dissertation is not the place to address the dispute between ethical and political approaches, it is the appropriate place to demonstrate that anthropogenic climate change leads to challenges that are commonly thought to necessitate a political approach.

It is here that we can also meet the objection that raising the disturbing question would be a misplaced undertaking given the sheer urgency to act on anthropogenic climate change. That this question is all but secondary becomes clear when we examine the kind of climate action a political theory account of the disturbingness of anthropogenic climate change demands. It is indeed quite different and often almost opposed to the solutions that are pursued based on ethical accounts. Viewed through the lens of a Kantian political theory²² approach, we must aim first and foremost at the establishment of democratic institutions on a global level to catch up with unprecedented and, until recently, unthinkable changes in our circumstances of action. This contrasts with the scepticism about democracy that is increasingly gaining ground over recent years inside and outside academia. To put it starkly: While being absorbed in restless efforts to overcome the wrong of anthropogenic climate change as we conceive it, we might actually be complicit in perpetuating long-standing and deeply engrained structures of global domination.

For the critique proposed in this chapter, a clear understanding is needed of the ethical theories that are applied to anthropogenic climate change. I, therefore, start with a brief overview of the debate regarding distributive climate ethics and then develop a general framework that all the established normative theories of anthropogenic climate

²² Throughout, I use political theory and political philosophy interchangeably.

change share (1). Moving on to the first challenge, I argue that climate ethics fail to consider the probabilistic nature of anthropogenic climate change, thereby, missing its target (2). Adopting a risk perspective raises the question of an adequate modification of the established normative theories to account for the probabilistic kind of wrong that anthropogenic climate change poses. To answer this question, I first engage with a relatively recent debate on risk imposition, or probabilistic wrongs, that is conducted from within the same ethical framework that is shared by climate ethics, and I show that the proposed theories reveal severe shortcomings when solving the paradoxical nature of risk imposition (3). In the next section, I address a possible modification of the established ethical theories that would allow solving the paradox of risk imposition, but I question whether these theories are capable of integrating this feature (4). Having set out the first, internal critique of climate ethics, I then raise a more fundamental challenge. I present two uncontroversial assumptions that give rise to the challenge of the legitimate use of force and show that ethical theories are unfit to meet that challenge for principled reasons (5). I then show that political theories are designed to meet this challenge and I provide preliminary sketch of a theory that I deem especially convincing—that is, Kantian political theory—and its answer to the question of the disturbingness of anthropogenic climate change (6).

1. The Disturbing Question and the Answer of Climate Ethics

The first philosophical contributions to the debate on anthropogenic climate change targeting normative questions were published in the early 1990s.²³ Mirroring the debates in the international political arena, the philosophical discussion has for a long time focused on determining the ‘common but differentiated responsibilities’²⁴ for coping with anthropogenic climate change.²⁵ Those interventions aimed to defend specific principles of climate justice that would allow to a fair distribution of the burdens (and benefits) that

²³ Among these are a study on how to weigh the impact of anthropogenic climate change on future generations in economic terms by John Broome (Broome 1992), an intervention by Dale Jamieson (Jamieson 1992) that was already then pointing at the distinct nature of anthropogenic climate change from previous challenges and the need to update and develop our established normative theories. Together with the contribution by Henry Shue from 1993 (Shue 1993), these early interventions already set out many of the key issues that are discussed up until today and the theoretical approaches that are used to solve these issues.

²⁴ UNFCCC 1992, Art. 3(1).

²⁵ One of the first contributions that had a key role in mapping the issues of justice that arise in the context of anthropogenic climate change was Henry Shue’s article ‘Subsistence and Luxury Emissions’ from 1993 (See Shue 1993). Shue’s proposal was prompted by questions arising in the context of the UNFCCC negotiations with respect to the question of how best to measure greenhouse gas emissions. It is one of the most influential philosophical contributions to the debate on anthropogenic climate change and beyond. It became Shue’s most cited article and its core arguments found their way into the Second Assessment Report of the Intergovernmental Panel on Climate Change (see Shue 2016, 6).

accompany present and predicted human-induced climatic changes. There are multiple ways to structure the debate on distributive climate justice. Many authors draw a fundamental distinction between issues of distributive justice that arise between generations—between people distant in terms of time—and issues that arise between contemporaries—between people distant in terms of space.²⁶ Along these lines, many distinguish between questions that arise in the realm of *intergenerational* distributive justice and *global* distributive justice.

1. *Intergenerational Distributive Justice* How to share the burdens between us and future generations?
2. *Global Distributive Justice* How to share the burdens that we contemporaries have to bear?

Many proposals have been formulated to complement and further develop this essential distinction. A famous subdivision that is widely accepted distinguishes between different kinds of burdens with respect to *mitigation*, *adaptation* and *compensation* efforts.²⁷ Other ways to organise the issues discussed within distributive climate justice have been proposed that cut across the distinction introduced here.²⁸ Another issue raised in the debate is the question of who the addressees of the claims are and entitlements that are supported by considerations of climate justice and fairness.²⁹ The different ways to analyse and categorise climate justice often result from the different aims the authors pursue. Whether the different dimensions of climate justice that can be distinguished for analytical purposes—such as the temporal and the spatial dimension—are, in addition, issues that can be dealt with separately is yet another, methodological, issue that has attracted some attention.³⁰

²⁶ See for example Roser/Seidel 2017.

²⁷ Caney 2012, 257f. The focus of the debate has for strategic reasons mainly been on mitigation as a focus on adaptation and/or compensation was understood to entail the concession that mitigation efforts will fail. For an overview of the more recent debate on adaptation, see Hartzell-Nicholls 2011.

²⁸ Henry Shue proposed to distinguish between four different questions of justice that arise in the context of the climate negotiations: '(1) What is a fair allocation of the costs of preventing the global warming that is still avoidable? (2) What is a fair allocation of the costs of coping with the social consequences of the global warming that will not in fact be avoided? (3) What background allocation of wealth would allow international bargaining, about issues like (1) and (2), to be a fair process? (4) What is a fair allocation of emissions of greenhouse gases (over the long-term and during the transition to the long-term allocation)?' (Shue 1993, 201). Other proposals include Caney 2014. Caney distinguishes what he calls 'burden-sharing justice' (Caney 2014, 125f)—'What would a fair distribution of the burdens of coping with anthropogenic climate change look like?'—from 'harm-avoidance justice' (Caney 2014, 126)—given the overriding aim of preventing anthropogenic climate change, that is, irrespective of the question of a fair distribution: 'Who should do what?' Most contributions to the debate try to answer the former kind of question.

²⁹ Beckman/Page 2008, 528; Caney 2005, 56–8;

³⁰ Henry Shue, for example, argues that it is grossly unfair to bargain separately about the question of who bears the burdens for the costs of mitigation and the question of who bears the burdens for the costs of adaptation (Shue 1993).

We do not have to review this debate in detail here.³¹ The aim is not to develop yet another answer to questions that have been raised in climate ethics. Instead, I want to pose a different question: why is anthropogenic climate change disturbing? I call this question the disturbing question.

The Disturbing Question
What is so disturbing about anthropogenic climate change?

Table 1. The disturbing question

This question aims to explain why anthropogenic climate change is significant from a normative perspective. This question may be stated differently: why is anthropogenic climate change a wrong, an injustice, some kind of bad, and so on? These notions are, however, often associated with a specific normative approach. The question I want to pose here is meant in the most fundamental sense without precluding any of the possible answers. To do so and to avoid misunderstandings, I use the term ‘disturbing’ to indicate this broad sense. If something is ‘disturbing’, then it has a normative dimension. Stated differently, I want to raise the question of how we ought to parse the normative dimension of anthropogenic climate change. It is the *frame* that interests me and not the more detailed questions that arise within the frame of a specific normative theory. It is important to note that the questions asked in climate distributive justice are of the latter kind, because distributive questions arise only if we already assume that we *ought to* limit the emission of greenhouse gases. It, therefore, presupposes a normative theory that supports this claim. However, why is the prospect of anthropogenic climate changes that are likely to be induced by not limiting our greenhouse gas emission disturbing? The disturbing question, thus, precedes the questions mentioned before.

The disturbing question has hardly been addressed so far. Perhaps because the possible answers seem too obvious.³² Indeed, asking the question in itself might disturb many.

Simon Caney argues for an even more comprehensive view of justice, that is, against an isolated treatment of climate justice from other issues of justice, such as poverty (Caney 2012).

³¹ For an overview of the philosophical debate on anthropogenic climate change see, among others, Niederberger 2013, Gardiner 2004 & 2010, Moellendorf 2015 or Roser/Seidel 2015. They all have different emphases.

³² The following quotation from Roser/Seidel 2018 is exemplary for the treatment the disturbing question receives in the climate ethics debate: ‘However, the step needed to bridge this gap does not seem excessively large or difficult. Science

This double meaning is captured by calling it the disturbing question. Indeed, if a specific normative theory actually concluded that anthropogenic climate change constitutes nothing to worry about then this would be a good indicator that we should revise or reject the normative theory rather than a serious challenge to the assumption that anthropogenic climate change is a problem at all. This much I share the intuition that something about anthropogenic climate change is disturbing and I do not want to challenge this assumption. To the contrary, I regard anthropogenic climate change as one of the most, if not *the* most, important challenge humanity faces in the 21st century. What I do want to challenge, however, is the assumption that the established normative theories, as applied to anthropogenic climate change in climate ethics, can explain why this is the case. Many deduce from the apparent and undisputed disturbingness of anthropogenic climate change that our established moral theories support this claim. I suggest that, quite to the contrary, in their current form, climate ethics are *not* capable of explaining the disturbingness of anthropogenic climate change.

Even if the above is true, it might appear that it is an insignificant issue, given that the answer has to be that anthropogenic climate change is a problem. Indeed, this seems to be the general answer to other persistent challenges that question the viability of climate ethics, especially with respect to future generations.³³ I do argue, however, that this is not a possible approach to the disturbing question. It is, indeed, a more than timely and worthwhile undertaking. The main reason for this is practical. This chapter demonstrates that examining the normative intricacies of answering this question is not merely an academic pastime but has immediate consequences for how we think about the disturbingness of anthropogenic climate change and, therefore, the kind of climate actions we should canvass for. Indeed, in the light of the analysis of the disturbingness of anthropogenic climate change that I will propose, many strategies that have been welcomed in recent years as a

tells us what consequences we will have to live with in the future if we continue as we have been doing: heat waves and droughts, inundations and rising sea levels, species extinction and the spread of tropical insects—and as a result poverty, famine, migration, disease, and death. These findings already seem to suggest an ethical conclusion: We should avoid climate change. In other words, we have a moral duty to mitigate climate change. Thus the first key question of climate ethics—'Do we have a duty to do anything at all in the face of climate change?'—seems to be easy to answer.' After rejecting three reasons for scepticism about a duty to mitigate climate change, they take it that the quoted rationale suffices for establishing that we have such a duty (Roser/Seidel 2018, 19).

³³ This is, for example, the approach that some advocate for with respect to the non-identity problem (see Shue 2015). The non-identity problem was raised by Derek Parfit and others and claims that a harm approach and, indeed, all normative theories that share its comparative structure cannot explain why anthropogenic climate change or similar profound changes of the future state of the earth are wronging future generations that live under these profoundly changed circumstances. For the formulation of the non-identity problem, see Parfit 2010 [1984], and for an extensive discussion of possible solutions within the climate ethics debate, see Page 2006, 132–160.

good solution and have garnered support among climate activists will rather appear to be highly problematic. This is the case with the surge of private governance approaches. Other solutions, however, that increasingly lack support or have not been considered interesting by many, gain considerable support from these considerations. This is true for the answers to anthropogenic climate change that argue for the need for transnational forms of democracy.

Another reason is somewhat theoretical. We will see that raising the disturbing question allows us to answer pressing challenges that so far have not received a satisfactory answer because they have been postponed by those working in climate ethics. A challenge persistently raised in the public is that we do not know *for sure* whether the problematic consequences of anthropogenic climate change will materialise. Often, the strategy to answer such concerns is simply to downplay the uncertainty and to emphasise the robustness of our knowledge—sometimes in tandem with the acknowledgment that laypersons are unfit to address probabilistic claims and are prone to misinterpretations. I argue that we should not hastily reject this concern and that taking it more seriously leads us to a more consistent answer—one that also speaks to another challenge that is raised from within academia, that is, the so-called non-existence challenge. In fact, both challenges point to the same uncertainty.

I commence by reconstructing the answers that have been given in climate ethics to the disturbing question. To do so, I provide a general account of the established normative theories used in climate ethics and demonstrate how the disturbing question is answered on this basis. Most importantly, this allows me to identify two uncontroversial features that all the normative approaches applied to anthropogenic climate change share. These two features are essential to the subsequent critique of climate ethics.

I start with the general account. All established normative approaches to anthropogenic climate change are ethical theories³⁴. As ethical theories, they share two building blocks, that is,

- (1) a theory of the good (ToG) and

³⁴ Throughout, I use the terms moral theory and ethics interchangeably. Possible differences that could be indicated by these two terms are not important for the perspective I want to develop here. As will become clear at the end of this chapter, the important distinction here is the more general distinction between ethical and political theory.

(2) a theory of the right.

They all boast specifications that determine what each of them considers as good or bad, as a value or a disvalue on the one hand, and which actions are, consequently, right or wrong on the other hand. In the case of the first building block, the notion of good is understood in the broadest possible sense. If something is considered a thing, a state or an event that ought to be brought about, then this thing, state or event is good in this sense employed here. Few restrictions determine what can count as good. A well-known proposal first argues that good is to be understood in terms of the pleasure, happiness or wellbeing of sentient beings. That is, we ought to promote the pleasure, happiness or wellbeing of sentient beings. Others, however, suggest that what counts is to be spelled out in terms of rights or by reference to some notion of freedom. According to these accounts of the good, we should promote certain rights or a specific kind of freedom. Equally, the good can be defined by reference to some ideal of justice that ought to prevail. This constitutes the first building block of ethical theories.

The definition of ethical theories aims to cover all kinds of moral theories: consequentialist *and* non-consequentialist.³⁵ All normative theories applied to anthropogenic climate change within climate ethics fall, however, on the consequentialist side.³⁶ To determine what this means, we examine the second building block of ethical theories: a theory of the right. Walter Sinnott-Armstrong provides the following condensed definition of consequentialism.

‘Consequentialism, as its name suggests, is the view that normative properties depend only on consequences.’³⁷

Consequentialist theories, thus, claim that the normative status of an action—that is, its rightness or wrongness—is a function of the normative quality of the consequences it brings about. More specifically, the right action, that is, the action an agent ought to

³⁵ For this characterization of ethical theories, I draw on Pettit 1991, 230f. Pettit explicitly states that his aim is to provide a definition that can capture consequentialist *and* non-consequentialist theories. I doubt that the general account of moral theories also captures non-consequentialist theories. Whether or not it does is, however, not a question that has to be solved here. Firstly, I focus exclusively on consequentialist moral theories as all established theories on anthropogenic climate change fall into this category. It is, therefore, not important whether non-consequentialist theories are actually captured by this description. Secondly, I aim to provide an *internal* critique of ENT and I assume that most of the authors would indeed support Pettit’s general rendering.

³⁶ To avoid misunderstandings about where the important argumentative steps are to be found: Nothing hinges on this point. What I propose in *Chapter Two* and *Chapter Three* is not a non-consequentialist Kantian ethics but a Kantian political theory that is different from ethical theories in general.

³⁷ Sinnott-Armstrong 2015, 3.

perform, is the one that yields a certain weighted distribution of good and/or bad consequences that is preferable to the distributions which all other possible actions yield in the same situation. A famous such weighted distribution that implies a specific answer to both questions—on what is good and on what is right—is captured in the slogan of ‘the greatest happiness for the greatest number’³⁸ prominently argued for by Jeremy Bentham. Which consequences are good and which are bad, as well as which pattern we should promote through our actions is subject to debate between consequentialists.³⁹ These debates primarily pertain to a general debate between the various ethical theories, while applied ethics is defined by the effort of applying the elsewhere justified, general approaches to a specific field of interest. Authors working on anthropogenic climate change are no exception in this respect. They rely on different theories of the good and the right, which they apply to anthropogenic climate change to derive answers to questions of action guidance. They are, in this broad sense, all applied ethics accounts of anthropogenic climate change that draw on a specific ToG.⁴⁰ The *ethical nature*, in this sense, is the first feature of the established normative theories of climate ethics.

Before turning to the second feature, I offer a brief overview of the different good and/or bad outcomes that anthropogenic climate change is supposed to bring about, according to key authors working on anthropogenic climate change. The participants in the debate on distributive climate justice rely on different ToGs. It is not always easy to determine what exactly their moral commitments are. As stated before, the answer is often assumed to be obvious and in no need of clarification. The normative theories that answer the disturbing question, thus, often remain implicit⁴¹ or are referred to only in very general terms. Sometimes it is commented on this question only briefly in passing, sometimes not at all. On other occasions, they cite more than one normative theory. They say enough,

³⁸ Bentham (2008 [1776]), 393.

³⁹ See for this characterisation of consequentialism Pettit 1991, 230–33 or Peterson 2013, 1–22.

⁴⁰ This categorisation goes counter to the self-description of some authors. Steve Vanderheiden, for example, proposes a ‘political theory of climate change’ (see Vanderheiden 2008). This characterisation, I assume, is motivated by his stronger focus than usual on the collective level (collective responsibility, political institutions, etc.) rather than the individual level (individual responsibility, individual agents, etc.) and political institutions. This is, of course, a legitimate way to distinguish both ethical and political enterprises. I argue in this thesis, however, that the distinction between ethical theory and political theory is not a distinction that is necessitated by the objects the respective ethical theories are applied to or the kind of conclusions they support, but the kind of normativity that is operative. I contend that there is a distinctly *political* normativity as opposed to ethical normativity that is the defining mark of a political theory and distinguishes it from ethical theory. For authors that share this kind of distinction see, for example, authors that over recent years gather under the banner of ‘Realism in Normative Political Theory’ (Rossi/Sleat 2014).

⁴¹ Cf. for example the quote from Roser/Seidel 2018 in Fn. 32 where they only cite concrete empirical consequences such as ‘poverty, famine, migration, disease, and death’ without further making explicit what kind of normative theory explains the badness or disvalue of these consequences.

though, to categorise them in these very broad terms I just introduced as consequentialist theories. The following table contains a brief overview of some of the ToGs that are endorsed by the authors in climate ethics to answer the disturbing question.

Established		
Normative Theories in Climate Ethics	Normatively Relevant Consequences	Proponents
Human Rights Approach	Violation of human rights	Derek Bell ⁴² , Simon Caney ⁴³ , Henry Shue ⁴⁴
Capability Approach	Impact on human flourishing	Elizabeth Cripps ⁴⁵
Utilitarianism/ Consequentialism	Impact on wellbeing	John Broome ⁴⁶ , Peter Singer ⁴⁷ Bernward Gesang ⁴⁸
Egalitarianism	Impact on equality	Steve Vanderheiden ⁴⁹
Sufficientarianism	Impact on level of wellbeing	Lukas H. Meyer ⁵⁰ , Dominic Roser ⁵¹

Table 2: Established normative theories in climate ethics, their respective ToGs and their proponents

So how do they then answer the disturbing question based on one of these broadly consequentialist frameworks? I sketch the general approach to answering the question, which allows me to introduce the second feature. The general structure of the argument they

⁴² Bell 2011.
⁴³ Caney 2010.
⁴⁴ Shue 2011.
⁴⁵ Cripps 2013.
⁴⁶ Broome 1992.
⁴⁷ Singer 2002, 14-50.
⁴⁸ Gesang 2011.
⁴⁹ Vanderheiden 2008.
⁵⁰ Meyer/Roser 2010.
⁵¹ Meyer/Roser 2010.

implicitly or explicitly propose to support their conclusion that anthropogenic climate change is disturbing is defined by the following three steps.

1. Consequentialist moral theory (1st feature)
2. Anthropogenic climate change *will* cause (a distribution of) certain good and/or bad consequences (2nd feature)

3. Climate change is a wrong (a human rights violation etc.) and we, therefore, have a duty to avoid anthropogenic climate changes

Firstly, climate ethics commits to a specific consequentialist moral theory, say a human rights approach. Secondly, they assume that changing the climate will bring about (a distribution of) certain good and/or bad consequences that are important from the perspective of the respective moral theory. Our example assumes, therefore, that anthropogenic climate change will lead to the violation of specific human rights. These two assumptions support the conclusion that, thirdly, anthropogenic climate change is disturbing because it violates the human rights of future generations. It follows that we have a general duty to avoid anthropogenic climate changes. Who exactly bears this duty and to what degree is, then, another and subsequent question.

All approaches in climate ethics share this general structure of the answer to the disturbing question. It may be possible to set it up in different ways but, as such, it should be uncontroversial. So what is, then, the second general feature that defines all established approaches? It is the second premise of the answer to the disturbing question that contains the second feature that all established normative theories of anthropogenic climate change share. Namely, all approaches assume that anthropogenic climate change *will* bring about the respective good and/or bad consequences as opposed to probabilistic statements that would be phrased in terms of likelihood. For example, certain human rights violations are likely or very likely to be the consequence of the climatic change that the massive emission of greenhouse gases induces. They share a *deterministic framework* (DF). This may not appear to be an important aspect or just a loose way of speaking. I will show, however, that this shared DF raises a major internal difficulty.⁵²

⁵² Simon Caney, for example, proposes an argument from a human rights perspective that boasts exactly the structure just set out. (P1) and (P2) are the premises argument, (C) is the conclusion: '(P1) A person has a right to X when X is a fundamental interest that is weighty enough to generate obligations on others. This claim draws on Joseph Raz's influential theory of rights. And it follows him in claiming that the role of rights is to protect interests that we prize greatly. The

2. The Deterministic Framework and Prominent Challenges to Climate Ethics

As we have just seen, all accounts of climate ethics are defined by a DF. That is, they assume that the good and/or bad consequences that explain the disturbingness of anthropogenic climate change *will* be brought about, that is, will be brought about *with certainty*. This, however, is in an obvious sense not true. When it comes to the future, all we have is predictions—some more likely, some less likely. We do not have certainty. This is especially the case for predictions about the development of such a complex system as the Earth's climate. Among other reasons, this unprecedented complexity of the natural processes involved in anthropogenic climate change led the World Meteorological Organisation (WMO) and the United Nations Environment Programme (UNEP) to establish the Intergovernmental Panel on Climate Change (IPCC) in 1988. This panel would provide 'regular assessments of the scientific basis of climate change, its impacts and future risks, and options for adaptation and mitigation'⁵³—the so-called Assessment Reports (AR).

This omnipresent uncertainty about the future outcomes of anthropogenic climate change is reflected in all the reports. Each statement on the impacts of anthropogenic climate change that the IPCC agrees on is qualified by a statement about its probability. At the beginning of the so-called Synthesis Report (SYR) of the IPCC's Fifth Assessment Report (AR5) from 2014, the first footnote clarifies the terminology used over the course of the entire report.

'The following terms have been used to indicate the assessed likelihood of an outcome or a result: virtually certain 99–100% probability, very likely 90–100%, likely 66–100%, about as likely as not 33–66%, unlikely 0–33%, very unlikely 0–10%, exceptionally unlikely 0–1%.'⁵⁴

next step in the argument maintains that: (P2) Persons have fundamental interests in not suffering from: (a) drought and crop failure; (b) heatstroke; [...] Yet, as the Third Assessment Report of the IPCC records, all the malign effects listed in (P2) will be generated by climate change. [...] Given this, it follows that there is a strong case for the claim that: (C) Persons have the human right not to suffer from the disadvantages generated by global climate change' (Caney 2005, 767f; my underscoring). Simon Caney starts by briefly laying out his ToG (a human rights approach) and, then, assumes that anthropogenic climate change will infringe on the good as he understands it (human rights). From there the general duty to avoid climate changes 'follow[s]' (Caney 2005, 768). Having thus answered the disturbing question, it is now that questions of distributive justice systematically arise for Caney, for example: How does this general duty distribute among us? (See Caney 2005, 769).

⁵³ See webpage IPCC: <https://www.ipcc.ch/about/>, last access: 31 December 2019.

⁵⁴ IPCC 2014, 2.

Therefore, all statements about prospective impacts are qualified as ‘about as likely as not’⁵⁵, ‘likely’⁵⁶ or perhaps even ‘virtually certain’⁵⁷—but never certain. This observation could seem trivial. Indeed, it is not contentious at all. All authors working on anthropogenic climate change within climate ethics use the IPCC’s reports to inform their normative theories. They also often point out our inability to gain certain knowledge about anthropogenic climate change as a core feature of this challenge.⁵⁸ It is also common to describe climate change as a threat or a risk, which is another way to indicate the uncertainty that surrounds statements about the impacts of climate change.⁵⁹ Therefore, what, exactly, am I claiming here? To clarify: I do not intend to argue for some form of climate scepticism.⁶⁰ As mentioned before, I do share the assumption that anthropogenic climate change constitutes one of the most pressing challenges that humanity currently faces. Rather, I claim that, even though commonplace and often mentioned in normative theorising about anthropogenic climate change, when moral theories are applied to anthropogenic climate change, the same authors fail to account for the fact that anthropogenic climate change is indeed a risk and not a certainty. They treat it—wittingly or unwittingly—*as if* it were a deterministic outcome.⁶¹

I am not the first to observe this deterministic nature of many moral theories. Sven-Ove Hansson—one of the most influential risk scholars—coined the term ‘deterministic bias’⁶² of established normative theorising to point to this feature. Calling it a bias—that is, a problematic misrepresentation of the actual phenomena—implies that a problem is involved in doing so. The central claim of risk scholars such as Hansson is that moral theories that help us to understand why it is wrong to bring about a bad outcome with certainty *cannot* explain why it is wrong to impose a risk of the same bad outcome on someone else.

⁵⁵ IPCC 2014, 2.

⁵⁶ IPCC 2014, 2.

⁵⁷ IPCC 2014, 2.

⁵⁸ See, for example, an early statement to this effect by Dale Jamieson: ‘There are many uncertainties concerning anthropogenic climate change, yet we cannot wait until all the facts are in before we respond. All the facts may never be in. New knowledge may resolve old uncertainties, but it may bring with it new uncertainties. It is also an important dimension of this problem [anthropogenic climate change] that our insults to the biosphere outrun our ability to understand them’ (Jamieson 1992, 141f).

⁵⁹ See, for example, IPCC 2014, Shue 2010 or Adger/Nicholson-Cole 2011.

⁶⁰ I am aware that similar claims have been used from early onwards to prevent climate action. Dale Jamieson, for example, reports the use of such strategies in the early debates in the US. After a short period of concern of the wider US public, the uncertainties with respect to the climate impacts were highlighted in prominent newspaper. Criticism fuelled by at least alleged climate scepticism never disappeared since these days. See Jamieson 1992, 140. Nevertheless, also Jamieson points out at the same time the essential role uncertainty plays in understanding the challenge anthropogenic climate change poses (see Fn. 58).

⁶¹ For an exception to the rule, see Schuppert 2017.

⁶² Hansson 2013, 1.

Deterministic wrongs, it is argued, are a different kind of wrong from risk impositions or, as I will also say, probabilistic wrongs. If this is true, however, then we must conclude that climate ethics cannot explain why anthropogenic climate change is disturbing. For—as we have just seen—anthropogenic climate change clearly is a risk and not a certain outcome while climate ethics maintains a DF.

I contend that Hansson is correct. Risks are a different kind of wrong and, given its DF, climate ethics is incapable of answering the disturbing question. There is, however, a debate on the nature of probabilistic wrongs and one might hope that we could import some modificatory device from there into climate ethics so that they can also account for probabilistic wrongs. Before I explain in more detail the distinct nature of probabilistic wrongs and turn to the philosophical discussion on this kind of wrong, I answer a possible query. One could wonder whether there may be a good reason in a *normative* perspective—as opposed to a descriptive perspective—to treat anthropogenic climate change *as if* it were a deterministic wrong, that is, a good reason to ignore its *de facto* risk nature when asking questions regarding its disturbingness. I argue that there is not. Indeed, I will show that key challenges that have persistently been raised against climate ethics originate, in one way or another, from this inadequate framing as a deterministic outcome—and thus, indeed, raise a valid point. Downplaying this difference is not a viable option. I want to discuss three challenges. Firstly, I address the inadequacy challenge, then I discuss the scepticism challenge and, thereafter, I consider the non-existence challenge.⁶³

The inadequacy challenge starts by pointing to the fact that, intuitively, it already makes an important difference whether I perform an action that does inflict harm on someone else *with certainty* or whether the harm is only a *possible* outcome. For instance, when driving a car, we do not think that, given certain circumstances (e. g. the driver is sober and has a driving license), there is something wrong about driving a car even though it does impose many risks on other road users, such as death. We would, however, certainly think that something would be wrong about the very same action of driving a car, something that would make it impermissible if those harms—including death—were certain to materialise. We, clearly, do distinguish between risk impositions and deterministic wrongs in our everyday moral assessments. We could add an endless number of cases to this effect.

⁶³ For another critique calling into question the deterministic rendering of climate ethics, see Karnein 2015, 56–61.

Therefore, given this intuitively significant difference between the assessment of risk impositions and deterministic wrongs in everyday examples, it is not clear why it should not count in the case of anthropogenic climate change. Thus, those who frame anthropogenic climate change as deterministic wrong bear the burden of proving why it should indeed be adequate to treat anthropogenic climate change *as if* it were a deterministic outcome in a normative perspective. So far, however, no such reasons have been adduced, and I tend to agree with Hansson that the difference between both is somewhat overlooked because of a deterministic bias than consciously set aside.

Given the clear intuitive grasp of the difference between risk imposition and deterministic harm, it is worth considering whether this difference may motivate, at least partly, some of the criticism or concerns regarding the established normative approaches to anthropogenic climate change that are often outright rejected as climate denial or a form of artificial scepticism. What if the unease some seem to feel regarding the established answers of why we ought to act is not a subconscious unwillingness to renounce the comfort that a greenhouse-gas-intensive lifestyle permits us? Perhaps, rather, it is an awareness that simply stressing the badness of the outcomes of anthropogenic climate change—as if they were certain to materialise—is not a satisfactory answer because, for this to be the case, they would indeed *have to be certain*. They are, however, and not only probable outcomes. This unease, thus, might stem not from their denial of the badness of the predicted outcomes but from the fact that it is a ‘mere’ probability. I call this the scepticism challenge to climate ethics, and it is the second challenge I now want to discuss.

If this indeed were the origin of the scepticism challenge then it would be somewhat immaterial to stress—as it is often done in response—that the agreement in climate science, including the possible impacts of climate change, is extremely high; or that also with respect to fundamental theorems in other branches of knowledge that are considered certain by the very same people (physics, mathematics etc.), some degree of disagreement can, in fact, be found. This answer would, if at all, only work for some of the predicted outcomes, namely those that are ‘virtually certain’ or fall in a similar range of likelihood. It might, however, also be counterproductive as it further nurtures the impression that the notion of deterministic wrongs might be entirely inadequate for all the situations we find ourselves in as we never can really know what the outcomes of our actions will be. It definitely would not work for those outcomes that are less than virtually certain. However, this

would be unsatisfactory, as we presumably want to state that even if the outcomes are not certain, they provide enough reason to stop inducing changes in the climate from which they originate.

Therefore, we should consider that our rebuttal might be partly misguided and the stern rebuke of any kind of scepticism about our conclusions too hasty. Indeed, we might be blind to a theoretical gap in our ethical theories due to a deterministic bias—the gap of an ethical risk theory that is capable of explaining the wrong of risk impositions. Equipped with such a theory, we would be in a position to react differently. We could answer the sceptical challenge, firstly, by admitting—instead of unsuccessfully trying to explain it away—that a difference does exist between deterministic outcomes and risk impositions and that some of the climate impacts will, indeed, not materialise in the end, but, secondly, does *not* mean that we can simply disregard the probable outcomes of our actions because risk impositions are also a wrong. Speeding—for example—a relatively minor case of risk imposition compared to anthropogenic climate change is considered a moral wrong and severely punished by law independently of whether the involved risks have materialised in a given case.⁶⁴

The third challenge, which might indicate the same deterministic bias of the established normative theories, is the so-called non-existence challenge. It was proposed by Wilfred Beckerman and Joanna Pasek. They set out the core of the argument as follows.

‘The crux of our argument that future generations cannot have rights to anything is that properties, such as being green or wealthy or having rights, can be predicted only of some subject that exists. Outside the realm of mythical or fictional creatures or hypothetical discourse, if there is no subject, then there is nothing to which any property can be ascribed. Propositions such as ‘X is Y’ or ‘X has Z’ or ‘X prefers A to B’ make sense only if there is an X. If there is no X, then all such propositions are meaningless.’⁶⁵

To put it differently, Beckerman and Pasek conclude from the hardly deniable fact that non-existent generations do not yet exist that talking about future generations’ rights is pointless—and so is the talk of the violation of any future rights by previous generations. This theoretical challenge to rights-based accounts is considered as substantial and on equal

⁶⁴ In Germany, there has recently been an avid discussion over how to assess instances of speeding and the attached risk impositions. In 2017, the status of speeding was changed from a non-criminal offence—subject to a fine of max. 400 Euros—to a crime with a maximum penalty of two years in jail if no harm is done (see §315 Absatz 1 Satz 3 Verbotene Kraftfahrzeugrennen StGB).

⁶⁵ Beckerman/Pasek (2001), 15.

standing with the famous non-identity problem raised famously by Derek Parfit for harm-based approaches.⁶⁶ We need to take this challenge seriously because many authors in the academic debate, activists and the broader public generally subscribe to a human rights-based account.⁶⁷

There are two ways to understand this challenge. According to the first interpretation, the crucial point of the non-existence challenge is that future generations do not exist in the here and now. It does not, however, imply any claim about the future existence of those future generations. Whether they will or will not exist is not crucial. That is, the issue the challenge wants to raise according to the first interpretation would remain operative even if we were to know with certainty that future generations will exist. The thrust of the challenge would, thus, be directed at the assumption that rights can give rise to duties that extend over and above the lifetime of the rights bearer. An assumption that all climate ethicists claiming that a violation of future-generation human rights gives rise to duties for current generations need to hold. This is, for example, Henry Shue's understanding of this challenge: 'Can the human rights of people who do not yet exist be the basis of duties for those alive now?'⁶⁸ Shue thinks they can, 'because in practice, adequate preparations for the fulfilment of a right often need to begin well in advance of the right's fulfilment.'⁶⁹ Shue then enumerates many everyday examples where we seem to assume that we have duties because of the rights of someone who is not existent anymore (e.g. our deceased parents) or does not exist yet (e.g. our unborn daughter).

Another question this challenge would have to answer why temporal distance should have such significant consequences and spatial distance not. Why should imposing a risk on someone who lives on the other side of the planet be different from imposing the same risk on someone who lives, perhaps, in the same city as I live but far in the future – *given* that this future someone *will* exist? I think that, based on the assumption that they will exist, there is no valid reason in a normative perspective to treat both dimensions

⁶⁶ See Gosseries/Meyer 2009, 2f.

⁶⁷ The edited volume 'Climate Change and Human Rights' by Stephen Humphreys is an example of the avid academic debate on anthropogenic climate change and human rights (Humphreys 2010). Intergovernmental institutions such as the Office for the High Commissioner of Human Rights (OHCHR), the leading United Nations (UN) entity on human rights, and NGOs like Greenpeace also understand anthropogenic climate change as a wrong in terms of the infringements on the human rights of current and future generations. For OHCHR see: <https://www.ohchr.org/EN/Issues/HRAndClimateChange/Pages/HRClimateChangeIndex.aspx> (last access: 31 December 2019); for Greenpeace see: <https://www.greenpeace.org/international/story/19885/what-does-climate-change-have-to-do-with-human-rights/> (last access: 31 December 2019).

⁶⁸ Shue 2015.

⁶⁹ Shue 2015.

differently. We are uneasy doing so because this assumption is inadequate. It is, of course, once again the deterministic bias. Temporal difference is distinct from spatial difference exactly because it implies unavoidable uncertainty. The future is open.

This leads me to the second interpretation of the non-existence challenge. According to this interpretation it is the DF that is rejected as inadequate. This interpretation opens up the possibility of developing a way more serious rendering of the non-existence challenge than the first interpretation provided. According to this second interpretation, the challenge of non-existence is not present in some kind of difference between spatial and temporal distance that obtains even if the existence of those the risk is imposed upon is assumed as necessary. Rather, it is present in the possibility that temporal distance implies necessarily that we cannot know for certain whether future generations will exist and, therefore, whether the rights bearers that presumably generate duties for us will exist. Consider, for example, the possibility—however small it might be—that humanity could be wiped out by a super-virus even before the respective future generations come into being, in other words, the generations whose human rights are supposed to generate climate duties for us. How could it then be sensible to explain the wrong that changing the climate poses by referring to the rights of future generations—generations that will never exist? This reading brings out the real thrust of the non-existence challenge, which has thus far not been answered.

I contend that, as with the challenges before, framing climate change as a risk imposition also constitutes a promising attempt to answer these objections. From within a risk perspective the plausible claims that future generations' rights do not exist before the respective generation and, most importantly, that we cannot know whether they will ever exist pose no novel problem. From a risk perspective, one can respond to the non-existence challenge that, even though it is true that future generations do not exist yet, it is nevertheless also true that – from what we know – there is a *very high probability* that there will be future generations. Moreover, this is enough to support the claim that we can wrong future generations by imposing risks on them and that we, thus, have certain duties to them. This is the case because within a risk-theoretical approach, we can treat the (very likely) existence of a future generation as just another factor that determines the overall probability of a normatively problematic outcome of our actions. This factor is not different from the fact that we know only with a certain probability P that our actions will lead to a

changed climate or that these changes will have a negative impact on future generations. The probability of an overall outcome $P(x)$ is, however, the product of probabilities ($P(y) \times P(z)$) that the various specific events that must occur for the overall outcome to materialise.

$P(\text{violation of a future person's rights}) = P(\text{specific consequences}) \times P(\text{future generations' existence}) \times P\dots$

Stated differently, if a risk theoretical framework is sensible at all, then the fact that the wronged person will only exist with a certain probability is exactly one of the instances in which we should adopt such a view. Therefore, the case where the existence is only probable but the outcome certain follows the same logic as the case in which the wronged person exists with certainty but it is uncertain whether our action will cause any harm to her.

The discussion of the three challenges shows that a risk framework is unavoidable when overcoming some of the key challenges that have been levelled against climate ethics in general and against one of the most widely endorsed accounts of a ToG, the human rights account. It is important to note, however, that, as the first challenge pointed out, it is simply the case that anthropogenic climate change does constitute a risk and not a deterministic outcome and that a risk perspective is, therefore, the only adequate perspective—whether it actually helps to solve these other issues. Furthermore, if no convincing reasons are presented for why we can treat anthropogenic climate change in a normative perspective *as if* it were a deterministic wrong, we must conclude that the established normative theories are inadequate for answering the question of why anthropogenic climate change is disturbing. Climate ethics—in its current form—cannot answer the disturbing question.

The need to adopt a risk perspective would not be too daunting a prospect to climate ethics if we could easily substitute or modify the established normative theories to account for risk impositions and deterministic wrongs alike. We now address a relatively recent debate on risk imposition that aims to account for our strong intuitions that risk impositions are a wrong, just as deterministic wrongs are, based on the same normative theories that underpin climate ethics.

3. The Paradox of Risk Imposition

It follows from the discussion before that we must frame anthropogenic climate change as a risk imposition. The DF of climate ethics turned out to be untenable. It is not only

inadequate as such—anthropogenic climate change is a risk⁷⁰ and not a deterministic outcome—but also provokes valid and persistent challenges to climate ethics. Risk impositions or probabilistic wrongs are, however, a distinct kind of wrong from deterministic wrongs, or so I claimed. I now engage with this claim and the challenge it poses: explaining the type of wrong that risk imposition poses.

We have already seen when discussing the inadequacy challenge that we do intuitively distinguish between deterministic and probabilistic wrongs in our common moral assessments. Understanding this difference is one of the chief tasks of the ethics of risk imposition. Another is, then, to solve the challenge that arises from there, that is, the challenge for our established normative theories to account for the type of wrong risk imposition poses. In the terminology used above, the challenge of explaining why risk imposition is disturbing. Thus, we need to develop a different kind of normative theory or an extension to our existing normative theories that would allow us to explain the disturbingness of probabilistic wrongs and inform our risky actions. In the following, I briefly review important aspects of the debate on risk imposition and present the idea of a deterministic bias in greater detail. I then introduce an analysis of this kind of wrongdoing by discussing a famous example in the risk imposition literature—the case of compulsory Russian roulette. I call the resulting analysis of probabilistic wrongs the Paradox of Risk Imposition (PRI). After introducing the PRI, I then show in the next section that the proposals so far in the debate on risk imposition cannot solve PRI and, finally, indicate the direction in which a possible solution to PRI might be found. It remains unclear, however, whether the established normative theories can be modified to integrate this kind of solution.

One of the earliest contributions to the recent philosophical debate on risk imposition is presented in Robert Nozick's 'Anarchy, State and Utopia'⁷¹ from 1974. In the 1980s, two important edited volumes⁷² and a book by Judith Jarvis Thomson⁷³ joined the ranks of philosophical risk research. However, this promising start only relatively recently led to a broad

⁷⁰ The aim of providing a thorough analysis of the notion of 'risk' has itself sparked a complex and ongoing debate. See Gibson 1985 and MacLean 1986 for early contributions, and for a recent survey of the topics that have been at the centre of the discussion since then, see Hansson 2012. For the following discussion, it suffices to bear in mind that a risky action is defined by a certain indeterminacy with respect to its outcomes. Risks are those unwanted events that are neither certain to occur nor can we rule out that they will materialise. A risky action is accompanied by such outcomes. For an analysis of the role of politics in shaping our perception of risk, see Fischer/Goerres 2019.

⁷¹ Nozick 1973, esp. 73–77.

⁷² Gibson 1985 and MacLean 1986.

⁷³ Thomson 1986.

philosophical debate on the normativity of risk imposition. Notable exceptions in the 1990s include, for example, Shrader-Frechette⁷⁴, Sven-Ove Hansson⁷⁵ and Stephen Perry⁷⁶. The ethics of risk is, however, a relatively young branch of normative theorising.⁷⁷

The systematic starting point of the ethics of risk is the observation of a ‘deterministic bias’ in the established normative theories by Sven-Ove Hansson mentioned before. Let us now examine how Hansson explains the deterministic bias. He writes the following.

‘Moral philosophers have been predominantly concerned with problems that would fit into a deterministic world where the morally relevant properties of human actions are both well-determined and knowable. The deterministic bias has remained [...] in spite of the advent of new disciplines that have their focus on risk and uncertainty, such as decision theory and risk research.

We can see this deterministic bias not least in the stock of examples that are used in moral philosophy. Moral philosophers do not hesitate to introduce examples that are far remote from the conditions under which we live our lives, such as examples involving teleportation and human reproduction with spores. However, it is a common feature of most examples used in moral philosophy that each option has well-defined consequences: You can be sure that if you shoot one prisoner, then the commander will spare the lives of all the others. You know for certain how many people will be killed if you pull or do not pull the lever of the runaway trolley, etc. This is of course blatantly unrealistic. In real moral quandaries, we are seldom sure about the effects of our actions.’⁷⁸

The deterministic bias, thus, is a mistaken tendency of moral theory to idealise our knowledge about the real world, especially with respect to the outcomes of our actions. Instead of limited knowledge and accompanying uncertainty, we find clear-cut examples where the consequences of our actions are knowable and well-determined. Moreover, not only are examples constructed this way but also real-world phenomena such as anthropogenic climate change are modelled in a way such that its risk nature disappears. Moral theories, thus, also work with inadequate models of real-world phenomena. This assumption, however, is highly problematic. No path leads from these clear-cut examples to reality. The

⁷⁴ Shrader-Frechette 1980 & 1985 & 1990.

⁷⁵ Hansson 1989 & 1993 & 1996.

⁷⁶ Perry 1995.

⁷⁷ For a key publication on the ‘ethics of risk’ see Hansson 2013. For a comprehensive survey on the historic and systematic aspects of the debate on risk imposition, see Hayenhjelm/Wolff 2012.

⁷⁸ Hansson 2013, 1.

theories we use to analyse the idealised examples are inadequate for answering the questions posed by uncertainty and risk. We need a new kind of ethics. Only a risk ethics is capable of answering the questions raised by risk and risk imposition.

The following question has been drawing the most attention from risk ethicists to date: What criterion distinguishes between justified and unjustified risk impositions? Assume, for example, that a cooperation wants to build a new factory close to a residential area. We know that there is a certain risk of toxic fumes escaping the factory and damaging the health of those living in its vicinity. What moral criteria determine whether such a risk imposition is permissible? For a long time, cost-benefit analysis has been the main tool to decide on the permissibility of those questions, especially in the context of technology assessment.⁷⁹ Philosophers working on risk ethics were among the first to criticise this approach. It has been argued that cost-benefit analysis misses morally important aspects of risk impositions. Consequently, alternative normative theories were developed to account for the allegedly missing aspects.⁸⁰

I want to focus on a different question, however. In line with the disturbing question that motivates this inquiry, we must demand an answer to the question of what makes risk impositions problematic at all. This question has drawn little attention so far. John Oberdiek is one of the few risk scholars who raised this issue. He introduces the question of the disturbingness of risk imposition as follows.

‘Why does subjecting others to risk call for justification in the first place? That risk can be impermissibly imposed upon others [...] presupposes that imposing risk is the kind of thing that can be impermissible. Unless imposing risk can be impermissible after all, unjustified risking is literally impossible.’⁸¹

Oberdiek rightly claims that an answer to the question of the disturbingness of risk imposition precedes the question regarding a criterion for the permissibility of risk imposition, as this question already assumes that something *is* normatively problematic about risk to begin with. Nevertheless, what, exactly, is the target of this ‘still deeper as well as overlooked and undertheorized question’⁸²? To answer this question, we must first determine

⁷⁹ Hayenhelm/Wolff 2011, e28.

⁸⁰ See, among others, for a rights-based approach Hansson 2003, for an account from a contractualist perspective Kumar 2015 and for a freedom-based account Ferretti 2016.

⁸¹ Oberdiek 2012, 339.

⁸² Oberdiek 2012, 339.

the structure of the distinct type of wrong of risk imposition. How do probabilistic wrongs differ from deterministic wrongs? This will allow us to determine the features that a normative theory requires to account for the distinct kind of wrong of risk imposition.

To clarify the general structure of probabilistic wrongs, it is helpful to focus on a rather simple example. The example of involuntary Russian roulette rose to prominence in the risk debate since it was introduced by Robert Nozick in his ‘Anarchy, State and Utopia’ in 1974.⁸³ While it is a simplified and somewhat artificial example that differs in many respects from anthropogenic climate change, analysing it allows us to learn something about the normative structure of anthropogenic climate change. Anthropogenic climate change is—even though on a much greater scale—an instance of risk imposition. The example illustrating a paradigm case of a risk imposition involves involuntary Russian roulette as follows: Imagine agent A points a revolver at agent B without agent B’s knowledge and consent. Let us assume that agent B is sleeping. She is, in fact, sleeping so deeply that she is entirely oblivious of what is going on around her, and no one else witnesses this situation. Assume, moreover, that the revolver has six chambers and only one is loaded. Agent A then spins the cylinder and pulls the trigger while pointing at agent B. Fortunately, the example requires that nothing happens—the respective chamber was empty.

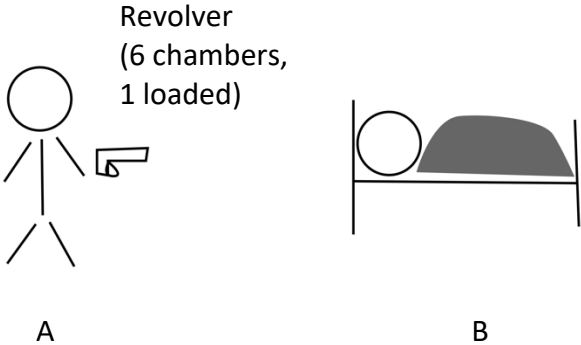


Figure 1. Involuntary Russian Roulette

I assume that we would be outraged by this behaviour and maintain that something is deeply disturbing and morally reprehensible about it. Playing involuntary Russian roulette

⁸³ Nozick 1973, 74.

with someone is clearly wrong, even though nothing happens.⁸⁴ It is important to note that the example is set up in a way that excludes one possible explanation for our reaction: the possibility to point to any kind of psychological stress, such as the fear of death, which agent B would probably experience in this situation if she were awake.⁸⁵ To understand the challenge that risk imposition poses, we must accept that no morally relevant consequences are brought about.

Those working on risk imposition assume that our unambiguous reaction to such cases rules out a possible strategy to deal with the risk imposition that is sometimes called ‘actualism’⁸⁶. According to this strategy, risk impositions do not pose a distinct problem from deterministic wrongs, as risk impositions are wrong *only* when the outcomes materialise. It would be claimed, thus, that we must distinguish between those instances of risk impositions in which the risk materialises and those where it does not. Our intuitive reaction to the example of involuntary Russian roulette, however, strongly suggests that this view is mistaken. Risk impositions are wrong *whether or not* the risk materialises. In the words of Judith Jarvis Thomson:

‘We do not think that the permissibility of acting under uncertainty is to be settled only later, when uncertainty has yielded to certainty. [...] If these ideas are right—and it really does seem that they are—then risk-imposition does generate an independent problem for moral theory. For there is a further question which then arises, beyond the question what harms we may or may not cause in what circumstances, namely, the question what risks of harm we may or may not impose in what circumstances.’⁸⁷

The rejection of actualism does, then, give rise to the first key task, namely, determining an adequate description of this independent problem or distinct type of wrong from deterministic wrongs. What is the object of analysis when we study the possible impermissibility of risk impositions? Even though risk scholars have engaged with this question, no commonly accepted answers have been given. I propose that one of the major shortcomings of the debate on risk imposition to date is that it has not developed a clear understanding of

⁸⁴ Another example that is sometimes used is the example of drunk driving. See, for example, Kumar 2003 or Oberdiek 2012.

⁸⁵ For an account who tries to capture the psychological effects of risk in terms of capabilities and disadvantage see Wolff/De-Shalit 2007, 63–73.

⁸⁶ Hansson 2003, 293f; Ferretti 2016, 263f.

⁸⁷ Thomson 1986, 185. As observed above, Thomson—as most participants in the debate on risk imposition—only focuses on the question of a criterion that would allow us to distinguish between permissible and impermissible risk impositions but does not pursue the question of defining the kind of wrong risk imposition poses.

its object of analysis. Oberdiek correctly claims that the structure of the wrong of risk imposition has drawn little attention and is not well understood.⁸⁸

In the following, I propose an analysis of the distinct kind of probabilistic wrongs and thereby close this significant gap. I call the resulting analysis the PRI. I do so because from the perspective of the established normative theories the kind of wrong risk imposition poses appears to be paradoxical in its nature. Developing a full description of the nature of risk impositions then allows us to shed a critical light on the answers that have been given to the question of the disturbingness of risk impositions so far.

I contend that the distinctness of the wrong of risk imposition or probabilistic wrongs as opposed to deterministic wrongs resides in its paradoxical nature. To account for this distinct type of wrong, we need a normative category that is at the same time

1. non-consequentialist, and
2. consequentialist.

That is, the normative category we are looking for has to account, on the one hand, for the fact that imposing risk is wrong *regardless* of whether the risk materializes. On the other hand, however, it appears to be equally obvious that a risk imposition is wrong only because of the very consequences that could materialize and not something else. Let me return to the example of compulsory Russian roulette to explain in more detail why probabilistic wrongs do have this structure. The first side of the PRI is manifest in the example of compulsory Russian roulette in the fact that it is not important to us whether a shot actually goes off to contend that the action of agent A was wrong. It is the risk imposition as such that is enough to make this kind of behaviour wrong and it is committed prior to any harm that may materialise later on. This was the very point of the quotation from Judith Jarvis Thompson and of rejecting actualism as a possible option to deal with risk impositions.

That the risk imposition is committed prior to the materialisation of the harm is meant to capture an important and intuitive point we already briefly touched when discussing actualism. Let me add here some more thoughts to clarify the first side of the PRI. According to actualism, we must distinguish between those actions that cause harm and those that do not. We have to do so, this position claims, because both types of action fall

⁸⁸ Oberdiek 2012, 339.

into different categories. The first type, actualism argues, is unproblematic as no harm is done, while the second type is a trivial case of harming and has to be dealt with just as with any other instance of a deterministic wrong. From there actualism concludes that risk impositions are not an independent type of action or wrongdoing and, hence, that there is no such thing as probabilistic wrongs. Claiming, as Thomson does, that the wrong is already committed prior to the materialisation of the risk implies that this splitting up into two different types of action is rejected. There is only one single action and it is performed prior to the materialisation of the risk. In addition, this single act constitutes an instance someone imposing a risk on someone else. I follow Thomson here in claiming that this is the most intuitive position. For when we judge in cases like the involuntary Russian roulette that agent A behaves wrongfully, we do so without needing to know whether the risk materialises, as that is merely an accidental feature with respect to the wrongfulness of agent A's action. It follows from there, however, that the disturbingness of a risk imposition has to be explained without reference to the harm that could materialise. It is therefore that the normative category that can explain this kind of wrong needs to be *non-consequentialist* in the sense that it cannot refer to the harm that is risked to explain this kind of wrong.

On the other hand, it seems equally obvious, however, that it is only the very fact that agent B could have been shot by agent A that makes this act wrong—and nothing else. To bring this point home, imagine the following scenario. Imagine that after agent A played involuntary Russian roulette with agent B and, luckily, nothing happened, agent A points out in her defence the very fact that nothing happened and claims that her playing Russian roulette with person B was for this very reason not wrong. Our reaction would be something along the lines of the following: 'But this is beside the point: Something *could* have happened! Something very serious! You could have killed her!' That is, to explain to agent A why this action is wrong we would indeed refer to the possible harm and not something else. We would point to the possible outcome as reason for our criticism even though it did luckily not materialise. We also react in the same way when our children imposed a risk on others or themselves and then defiantly claim, 'But nothing happened!' That is, we would respond without much thinking: 'But something *could* have happened!' and would take it that pointing to the possible harm explains why the risk imposition is wrong. Oberdiek

agrees that this is very intuitive. He calls this explanation the ‘common sense account’⁸⁹ to risk impositions and its wrongfulness. He writes:

‘The most straightforward and initially intuitive account of the moral significance of risk impositions traces that significance to the fact that such actions portend harm. This common-sense view holds that risking is morally significant because of its perceived likelihood of or potential for causing material harm to the person upon whom the risk is imposed.’⁹⁰

It is, thus, a widely shared position that it is the harm risked that explains the wrong of risk imposition. In developing his account, Oberdiek rejects this view. I think this is problematic as it takes on quite a burden of proof. My analysis, however, can account for the common sense view. Therefore, the normative category that can explain this kind of wrong needs to be *consequentialist* at the same time, in the sense that it has to refer to the harm that is risked, and nothing else, to explain this kind of wrong. This is the other, second side of the PRI.

Clearly, the two requirements directly lead into a paradoxical situation. The harm that may or may not materialise in a risk imposition does not seem to matter and, at the same time, it is the only thing that matters. I propose, nevertheless, that the PRI captures what is distinct about probabilistic wrongs from deterministic wrongs. Rather than shying away, we should, thus, confront the challenge it poses head-on in search for a possible solution to the PRI. This is necessary in order to understand the distinct type of wrong that risk impositions, such as anthropogenic climate change, pose. We need an explanation that works for both cases—that something happens and that nothing happens—equally. Only then does it actually explain the distinct wrong of risk imposition. Therefore, the established normative theories such as applied in climate ethics fall short of accounting for this probabilistic kind of wrong. They cannot account for both sides of the PRI. For only if it were *certain* that an action would lead to a rights violation, reference to the respective right could explain what is wrong about that action. The same is true for the infliction of harm and the other established normative theories.

This means that the established normative theories, as they are being applied in climate ethics, cannot account for the wrong anthropogenic climate change poses once we

⁸⁹ Oberdiek 2012, 343.

⁹⁰ Oberdiek 2012, 343.

consider its probabilistic nature. Moreover, it follows directly from there that we do not understand and cannot understand on their basis why anthropogenic climate change is disturbing at all.

4. Solutions to the Paradox of Risk Imposition

However, there have been some answers to the PRI proposed within the debate on risk imposition. Let us now turn to these answers. The hope would be that we can simply import these answers into the ethical debate on anthropogenic climate change and modify the applied normative theories accordingly.

The proposals presented all accept the suggested analysis of PRI. John Oberdiek, for example, not only pursues the same question I am interested in here, he also identifies under the headline of ‘The Puzzle’⁹¹ and by way of the example of drunk driving the same challenging structure of risk impositions as I captured it in the paradox of risk imposition. In fact, he identifies and briefly discusses two ‘diametrically opposed’⁹² answers that, to his own mind, seem to suggest themselves. These two answers are identical with the two sides of the PRI discussed above. He does, however, not propose a systematic analysis of this kind of wrong such as provided by the paradox of risk imposition. I will show now that it is this lack of a clear definition of the wrong of risk imposition that leads all the proposed accounts to fail, eventually. Confronted with the difficulty of explaining from within the framework of an established normative theory how risk imposition could possibly be wrong in the cases when the risk does not materialize, all proposals resort to the idea that some other type of consequence must be involved that explains the disturbingness. They refer to an additional harm that is inflicted even though the risk fails to eventuate. John Oberdiek, for example, argues in favour of some type of ‘nonmaterial harm’⁹³. Claire Finkelstein, another important participant in the debate on risk imposition, assumes the existence of a type of harm that is not an ‘outcome harm’⁹⁴ but is nevertheless ‘real’⁹⁵. By ‘outcome harm’ she refers to the harm that is risked when a risk is imposed. Sven-Ove Hansson posits that risk imposition is wrong because it violates the ‘right not to be exposed to risks by others’⁹⁶

⁹¹ Oberdiek 2012, 340–42.

⁹² Oberdiek 2012, 342.

⁹³ Oberdiek 2012, 353.

⁹⁴ Finkelstein 2003, 966.

⁹⁵ Finkelstein 2003, 966.

⁹⁶ Hansson 2013, 97.

and risk imposition, thus, constitutes a rights violation independently of whether or not the risk materialises.⁹⁷

All these proposal, however, run into a systematic difficulty—a difficulty that arises in addition to the fact that it is sometimes hard to follow when they attribute the possibility of these stipulated harms to some quasi ‘metaphysical’ existence such as, for example, our assumed ‘normative life’⁹⁸ as opposed to our ‘biological life’⁹⁹. In this vain, Oberdiek argues that in cases where a risk is imposed on me this risk imposition nonmaterially harms my normative life even though it does not affect, that is, materially harm my biological life.¹⁰⁰ The systematic difficulty arises internally and stems from the fact that all the proposals claim that there is some other kind of normatively problematic consequence brought about over and above the possible harm that is risked. For this purported solution to the PRI commits them to claims that stand in tension with the very description of the wrong itself, which they all share as a starting point.

Arguing for an additional harm allows them to claim that even though the risk does not materialize another harm indeed is inflicted. It is thereby that they then can explain the wrong that is committed in such cases as the Russian roulette example where the harm risked does not materialise. In proposing this they overlook, however, that this claim contradicts our very description of such situations in which the risk does not materialize. We were explicitly stating that in such cases *nothing* happens. If they were right, however, we would rebut agent A’s defence (as well as our defiant children’s one) not by pointing out that something *could have happened* even though the risk did not materialise and, in this sense, nothing happened, but by saying: ‘No you’re wrong. Something *did* happen even though the risk did not materialise.’ In addition, this something is—to stay with Oberdiek—that you nonmaterially harmed the other person. However, this is obviously not the case. It is not the case that we—not even vaguely—react in this way and try to point to some harm different from the harm that was risked. Instead, we do think that agent A acted wrongly because, and only because, she could have but luckily has not harmed agent B seriously, maybe even have killed her.

⁹⁷ Other proposals that share the core idea for explaining the wrong of risk imposition could be added. See, for example, Ferretti 2016 and Perry 2007.

⁹⁸ Oberdiek 2012, 351.

⁹⁹ Oberdiek 2012, 351.

¹⁰⁰ Oberdiek 2012, 351.

The internal difficulty of this position becomes even more apparent when we turn to the other possibility. That is, that the risk does materialise. In this case, those arguing for an additional harm are bound to claim that there is not only one but two harms inflicted by agent A on agent B. Firstly, the materialised harm and, secondly, the additional harm. In the example of Russian roulette, they are bound to claim that the bullet was fired that agent A not only harms agent B by shooting her but, additionally, harms her in a different way over and above this harm. Moreover, that this additional harm is independent from the materialised harm of the risk imposition. Even more. They must argue that the relevant harm, the harm that explains the wrong of risk imposition, is in fact the additional harm and *not* the risk harm that materialised. This claim, however, clearly contradicts the other part of the initial description holding that it is the harm risked that explains the wrong. This claim comes on top of the other problematic claim that in cases where the imposed risk does not materialise there is some kind of harm done even though this contradicts our very description of situations of risk imposition. Namely, that nothing happened.

I take these tensions to clearly indicate that we have not solved the paradox yet. The reason for the tensions can be observed in an exemplary way in Oberdiek's discussion of risk imposition. After introducing the puzzle and thereby identifying the object of analysis at least by way of an example, he narrows his analysis only to those risk impositions where the risk will not materialise.¹⁰¹ It remains unclear why he thinks he can focus his analysis only on these cases. Whatever the reasons are, in doing so either he incurs the same problems as actualism by splitting up risk impositions in two types of actions or he simply overlooks the problems his solution runs into that I have just laid out. Given the introduction of the challenge of risk imposition via the 'The Puzzle'¹⁰² I think that it is a lack of clarity about the actual object of analysis that leads to the flawed solution. I think the same is true for the other proposals as they do not even try to define the object of analysis clearly. After proposing an adequate analysis of the distinct kind of risk imposition—the PRI—and showing why the proposed solutions to it fail, I now point in the direction where a solution to it

¹⁰¹ Oberdiek 2012, 340. In reference to Judith Jarvis Thomson Oberdiek calls this kind of risk impositions 'pure risk impositions'. Thomson uses this notion differently, however. She uses it to refer to those risk impositions where no harm is caused *other than* the possible unwanted outcome that is risked (Thomson 1986, 173). She distinguishes these cases from those in which 'the agent causes an unwanted outcome, and imposes a risk of a *further* unwanted outcome' and calls them 'cases of "impure risk imposition"' (Thomson 1986, 173; my emphasis).

¹⁰² Oberdiek 2012, 340–42.

might be found. Before doing so, let me briefly comment on a different line of thought that many might have in mind as a possible answer to the PRI. That is, why not simply resort to expected utility theory to account for the wrong of risk imposition? Is this not the most widely used and accepted way to assess risk impositions?

Expected utility theory was developed to guide our decision making in an uncertain environment.¹⁰³ To calculate which decision it would be rational to choose, expected utility theory asks us to attribute a certain quantified value to each outcome a specific course of action would bring about—positive, if it is a good outcome, negative, if it is a bad one—and weigh it, that is, multiply it by its respective probability. Take, for example, the possibility that agent B is killed in the Russian roulette example. When agent A wonders whether it ought to play Russian roulette with person B she has to take the disvalue of killing agent B—let us assume the disvalue is -6000 units—times the probability that agent B is killed. Given that there are six chambers and only one is loaded, we can assume that the probability is one six. The value of this option thus is -1000 units—ignoring other possible accompanying outcomes. To acquire some action guidance, we now would must calculate the values of the alternative options to be in a position to determine the course of action that would yield the best result. That is, produce the least disvalue or the most value. However, this partial explanation of expected utility theory suffices for the point I want to make.¹⁰⁴

It is different from the many objections that have been raised against expected utility theory. It has been argued, for example, that it does not account for the crucial difference between imposing risks on oneself—that is, playing Russian roulette with oneself—and imposing a risk on someone else—playing Russian roulette with others.¹⁰⁵ However, I do not want to question whether expected utility can capture our intuitive account of situations of risk impositions. My point is different. I do in fact think that expected utility theory goes a long way in reproducing our intuitive assessment of courses of action that involve probabilities. That is, it certainly is accurate that the weight of a certain outcome decreases in our decision-making process in direct proportionality with its probability becoming smaller. However, irrespective of whether it provides a good estimate of our assessments of probabilistic choices, expected utility theory cannot solve the paradox of risk imposition. It cannot explain why risk imposition is problematic in the first place. This,

¹⁰³ Briggs 2015, 1.

¹⁰⁴ For this brief summary of expected utility theory, see Briggs 2019, 2–13.

¹⁰⁵ For this and other points of criticism, see Hansson 1993.

however, is the question we are asking here. Take the Russian roulette example: Why should the harm done to agent B be one sixth of the harm that agent A would have inflicted on agent B given the revolver would have been fully loaded? Furthermore, what harm is therein? Stated differently, if a deterministic consequentialist approach such as exemplified by the established normative theories cannot explain what is wrong about risk imposition, it is not clear why adding the layer of 'expectation' on top of it should make any difference. This rather seems to increase the need for an explanation. We not only must solve the paradox of risk imposition, but we also must answer questions of the kind just raised.

To sum up, even though expected utility may adequately capture (part of) our intuitive assessments of acting under uncertainty but it does not solve the paradox of risk imposition. Moreover, I would add that it does not purport to do so. Therefore, how does one solve the PRI, given that none of the proposed theories are able to accomplish this?

I now want to propose a solution that takes up the main strategy of all authors working on risk imposition, that is, the idea of a broadening of the normatively relevant realm. Oberdiek argues that this is the only possible avenue if one aims to explain the disturbingness or as he writes 'moral significance' of risk impositions.

'As no sound argument can be offered to explain what negative material impact risking has on those subject to it [given that the risk does not materialise], making sense of risking's moral significance requires a widening the parameters on how risk can affect life in a morally relevant way.'¹⁰⁶

I think Oberdiek is correct. We have seen different attempts to broaden the normative perspectives of the established normative theories. Oberdiek, Finkelstein and Hansson, they all added in one way or another normatively relevant dimension to the picture of the established normative accounts to account for risk impositions. I contend that they did it in a problematic way, however. That is, a way that necessarily led them into the difficulties I set out before. It is impossible to solve the PRI this way. So how to broaden the perspective of the established normative theories in a way that can solve the paradox of risk imposition?

¹⁰⁶ Oberdiek 2012, 350.

I start by introducing the notion of *modal* normative concepts and then show how this idea allows solving the PRI.

An example of a modal normative concept is a widely held notion of freedom. A statement is modal if it refers, among others, to what could be, that is, to possible states of affairs, events and outcomes.¹⁰⁷ A concept such as freedom is modal in the sense that its application depends not only on facts about the actual but also about *possible* worlds. Christian List and Laura Valentini provide the following analysis of the modality of freedom.

‘To be free, interferences or constraints in possible worlds have also to be considered. The claim that an agent is unconstrained in doing X in the actual world—and hence free to do X on liberal views—asserts the possibility, in a relevant sense, for the agent to do X. In other words, for an agent to be free to do X, there must exist some possible world *w*, accessible from the actual world, in which the agent does X.’¹⁰⁸

One might think that by stating that a certain agent A is free to do something one is only making claims about the actual world. What this analysis shows, however, is that the notion of freedom is internally linked to possible worlds. That is, one cannot make statements about the freedom of an agent A without, at the same time, making statements about the options the very agent has in some relevant possible worlds. I want to leave aside here the issue of determining which possible worlds do count by simply revering to them as ‘relevant possible worlds’ to indicate that there is still a difficult question to be answered. To put the general idea of this analysis differently: The freedom of a person cannot only be compromised by facts about the actual world but also by facts about relevant possible worlds. Modal normative concepts are responsive not only to facts about actual but also about relevant possible worlds.

I contend that it is this feature of modality that allows us to develop a solution to the PRI. Viewed from the perspective of a modal normative concept, the PRI reveals itself as being only apparent for the air of inconsistency that surrounds the PRI rests on an ambiguous use of the notion of ‘consequences’ that we incurred unnoticed when we set out both sides of the PRI. We made use A of the notion of ‘consequence’ when saying that risk imposition is wrong regardless of its materialisation or that we, therefore, need a non-consequentialist normative category. Here ‘consequences’ refers only to consequences in the

¹⁰⁷ For a general discussion of the various different meanings of modality in philosophy, see Kment 2017.

¹⁰⁸ List/Valentini 2016, 1048.

actual world. We made a different use B of the notion of ‘consequence’ when we said that it is nevertheless wrong only because of the harm that is risked and not something else and that we, therefore, need a consequentialist normative category. Here ‘consequences’ refers to consequences *either* in the actual *or* relevant possible worlds. Applied to the example of compulsory Russian roulette, we can say that this kind of risk imposition is wrong, whether or not a shot is fired in the actual world (use A of ‘consequence’). However, it is only wrong because *either* in the actual *or* a relevant possible world there is a shot fired, and, therefore, only because of the harm risked (use B of ‘consequence’). While use A of ‘consequence’ only refers to the actual world, use B refers to the actual *and* to relevant possible worlds. That is, when stating that consequences do not matter when explaining the wrong of risk imposition, we think only of consequences in the actual world. That is, use A of ‘consequence’. Focusing on the actual world, risk imposition is defined as a situation in which consequences of this type may or may not occur. When stating that consequences do, however, at the same time matter we think of consequences in a broader sense. Not only consequences in the actual world (use A of ‘consequences’) but consequences either in the actual or possible worlds (use B of ‘consequence’).

Why consequences in possible and not only in actual worlds matter in a normative perspective, is explained by the modality of modal normative concepts. Therefore, a modal normative concept provides the desired feature of being at the same time (1) non-consequentialist, namely with respect to the actual world, and (2) consequentialist, namely with respect to the actual *and* relevant possible worlds. Against the backdrop of a modal normative concept, the PRI reveals itself as a paradox in the literal sense and can, thus, be solved. It is only *apparently* inconsistent, that is, something that is inconsistent (*gr. para*) only at first glance (*gr. doxa*)¹⁰⁹—until we adequately revise our usual ways of thinking. It follows that modality is the adequate extension of our established normative theories insofar as the extension into possible worlds provides a rendering of the strategy of broadening the normative realm that allows us to make sense of the disturbingness of risk imposition while at the same time avoiding the systematic difficulties that plagued the proposed solutions to the PRI. That is, the idea of modal normative concept neither needs to stipulate some kind of additional harm in addition to the harm that is risked and, hence, no rather obscure ‘metaphysical’ existence next to our biological one, nor does it contradict the claim

¹⁰⁹ Partridge 2006, 857.

that nothing happens when the risk does not materialise. For as we can now see, this last claim only refers to the actual world. What we can point out, however, to explain why risk impositions such as in the Russian roulette example are nevertheless problematic is that something did happen in one of the relevant possible worlds, and if only something would have gone slightly different the harm would have materialised in the actual world. The PRI is solved.

This solution not only solves the PRI but solves it in a way that nicely fits with the intuitive claims I mentioned above. Firstly, it is in accordance with our reaction to risk impositions when we argue that they are wrong because something *could* have happened. Against the backdrop of the proposed solution, this can be understood as emphasizing the relevance of consequences in relevant possible worlds (use B of ‘consequences’). Secondly, if we introduce the language of closer and more distant possible worlds, then we can also make sense—within the framework of the proposed solution—of our intuitive assessments of the effect of different probabilities on the ‘weight’ of specific risk impositions as captured by the expected utility theory. For we can, then, say that the higher the probability the closer is the possible world to the actual world and, therefore, the more problematic is the risk imposition as only slight differences in the actual course of things would have made the risk materialise. Equally, we can state that the smaller the probability, the more distant is the possible world and, therefore, the less problematic the risk imposition. From a certain distance onwards, a harm that occurs in some remote possible world will eventually cease to be normatively relevant at all. Modal normative concepts, thus, not only allow us to solve the PRI but also to account for our basic intuition about the effect of different probabilities on the importance of the risk.

So where are we now? I started by posing the question of what is so disturbing about anthropogenic climate change. I then showed in the first section that the established normative theories that have been applied to answer this question with respect to anthropogenic climate change all share the same basic structure: they are consequentialist theories that boast a specific theory of the good (1st feature) and a DF (2nd feature). So far, I focused on the DF. In the second section, I argued that despite the widely shared structural features climate ethicists have good reasons to drop the DF and frame anthropogenic climate change as a risk for this allows them to avoid serious challenges that have been raised

regarding climate ethics. In the third section, I then showed that risk imposition is a distinct kind of wrong from deterministic wrongs that cannot be explained by the established normative theories. I argued that the structure of such probabilistic wrongs is adequately captured by the PRI. That the established normative theories cannot explain the disturbingness of risk imposition would only have been a minor problem if there were some device at hand that could be integrated into the framework of established normative theories, making them also applicable to risk impositions. I showed at the beginning of this section, however, that no convincing device has been presented so far. Having pointed out this lacuna and having provided a systematic description of the wrong of risk imposition (PRI), I then was able to point into a direction in which a solution to the paradox risk imposition must be found. What we need is some kind of *modal* normative concept. Modal normative concepts can explain what is wrong about risk imposition.

This solution to the paradox of risk imposition means, however, that the established normative theories applied to anthropogenic climate change must 'modalise' their normative concepts to extend into possible worlds to account for the probabilistic wrong of anthropogenic climate change. Only then can they account for the fact that consequences that are part of possible worlds matter as well as consequences that are part of the actual world. That is, only then can they account for the disturbingness of risk imposition. This, however, raises at least two questions. Firstly, it is unclear whether the established normative theories applied to anthropogenic climate change can easily adapt this solution. Are the normative ideals of human rights, human flourishing, wellbeing or equality modal in the relevant sense? If they are not, can we simply stipulate that they are, or would this amount to an *ad hoc* solution that does not explain much? Secondly, proponents of ENT might be concerned that an extension into possible worlds challenges the very idea of consequentialist ethical theories in the above-defined sense. For it is no longer just consequences in the ordinary sense (use A of 'consequence') that count, but consequences in the actual and in relevant possible worlds (use B of 'consequence'). Accepting this claim could seem to blur the line between consequentialist and non-consequentialist theories.

However, whether or not these difficulties can be surmounted, by raising this internal challenge to established normative theories of anthropogenic climate change, I want to highlight that, at this point, we do not have an ethical theory that can convincingly answer the question of what is so disturbing about climate change. Given the perceived urgency of

responding to the challenge of anthropogenic climate change, it is conceivable why theorists focused on somewhat more practical questions while assuming that there must be an answer to this more fundamental question. I propose, however, that delving into the intricacies of normative theorising is related to those more practical concerns. As will become clear in the remainder of this chapter, depending on the kind of normative theory we choose to answer the disturbing question, the actions and policies that it recommends are quite different. This is certainly true for the Kantian political theory of anthropogenic climate change I develop over the course of the next two chapters. Taking its answer to the disturbing question leads our practice in quite a different direction than it is often argued for by the established ethical approaches. However, I am getting ahead. Let me now introduce the second, external critique. After revealing internal difficulties of the ethical approaches in answering the disturbing question with respect to climate change, it is the aim of this critique to go even one step further. It demonstrates why ethical approaches are unfit for explaining the wrong of anthropogenic climate change and why we do have to adopt a political theory framework instead.

5. The Legitimate Use of Force

The first section introduced the general framework of all established normative theories applied to anthropogenic climate change. We saw that these theories are defined by two features. They all have a specific ToG (1st feature) that is embedded into a DF (2nd feature). We discussed the second feature, its difficulties and possible solutions in the previous sections. I now address the first feature. We saw that a ToG proposes a specific normative ideal, whether in terms of human rights, human flourishing, the absence of human suffering, or some other good and/or bad outcomes. It is by reference to those normative ideals, the disturbingness of anthropogenic climate change is then explained by the established normative theories. Thus, anthropogenic climate change is considered a wrong because it violates human rights, it thwarts human flourishing, or it causes severe suffering or some other good and/or bad consequences. I want to show now that the fact that all established normative theories are defined by a commitment to a specific ToG gives rise to another serious challenge to climate ethics: the challenge of the legitimate use of force. The challenge arises if we consider two uncontroversial assumptions. I start by introducing those two assumptions.

The first assumption holds that—even though few would challenge the claim that anthropogenic climate change is disturbing at all—there is a plurality of explanations of the disturbingness of anthropogenic climate change. Inside as well as outside academia, we find disagreement over what the adequate ToG is. Moreover, these consequentialist theories are, for their part, challenged by non-consequentialist approaches to ethics. It is an open and contentious question what the adequate ethical theory is in general but also with respect to more concrete problems such as anthropogenic climate change.

(1) *Assumption (Normative Disagreement)* It is a matter of empirical fact that there is widespread and deep disagreement over the adequate ToG.

This disagreement affects all kinds of normative ideals, from values to ideals of justice. To scholars working on normative question in the one way or the other, this is an obvious fact. If there were no disagreement over these questions, then normative theorising would be confined to questions of how to apply certain shared values or any normative ideal to a given case. This is clearly not the case in general and also not with respect to anthropogenic climate change. Regarding values this disagreement is often readily acknowledged. This acknowledgement of a variety of different values that underpin our theorising can also be found in the debate on anthropogenic climate change. A nice expression of this fact is the following quote from Brian Barry. When discussing the notion of sustainability, he holds out the possibility that

‘[p]erhaps people in the future might learn to find satisfaction in totally artificial landscapes, walking on the astroturf amid the plastic trees while the electronic birds sing overhead. But *we* cannot but believe that something horrible would have happened to human beings if they did not miss real grass, trees, and birds.’¹¹⁰

In this quote, Barry indicates the possibility that future generations live good and fulfilling lives in a setting that may seem to many of us a somewhat dystopian world. He does so to point out the inconvenient truth that relying on such values to explain the wrong of anthropogenic climate change seems to offer little more than a statement of what *we* would find distressing about certain climatic changes. Moreover, even this ‘*we*’ is rather severely restricted. To find disagreement over the value of ‘real’ as opposed to ‘artificial’ plastic worlds we do not have to imagine remote futures. Disagreement over such values already

¹¹⁰ Barry 1999, 102; my emphasis.

features in the world we live in. While some are prepared to sacrifice many amenities of modern life to preserve what they perceive as intrinsically valuable parts of the natural world, such as glaciers, coral reefs, the jungle and the arctic ice, others see nature merely in instrumental ways, as a resource without intrinsic value that must recede when other goods are deemed more important.¹¹¹ There is also a vast plurality regarding normative ideals such as justice or right, which is clear from the overview of different approaches in climate ethics at the beginning of this chapter. Among others, neoliberal, liberal, egalitarian, sufficientarian and human rights-based notions of justice are applied to anthropogenic climate change.¹¹² Furthermore, utilitarian accounts reject the intrinsic value of all of these notions of justice and right. Instead, they contend that all these ideals only matter insofar as they are instrumental to maximising wellbeing.¹¹³ However, how exactly to maximise wellbeing is just the next area where disagreement among utilitarians begins. Disagreement over the adequate ToG is not limited to the scholarly debate. It has often been observed as an essential feature of climate-change negotiations.¹¹⁴

The assumption of *de facto* disagreement over ToGs in the context of anthropogenic climate change is uncontroversial. And it is only this empirical fact of disagreement that is important to my argument. No further claims are made. I am not arguing, for example, that the empirical observation of an unresolved disagreement over ToGs alone gives us a compelling reason to question the viability of any kind of substantive account of what is good and bad or right and wrong. The point I want to make is a rather commonplace observation and compatible with a non-cognitivist as much as with a cognitivist position in ethics. This distinction is sometimes captured as the distinction between descriptive and metaethical moral relativism. While the first is only a claim about the empirical fact of

¹¹¹ Michele Marvier, a scholar working on conservation science, observes based on polling data for the US that: 'Among professional conservationists, few question the intrinsic value of biodiversity. However, the arguments that convince us do not resonate well with most people. Messages that highlight health and economic benefits for people [provided by nature] enjoy the greatest support' (Marvier 2012, 227). For an active disagreement from within the environmental community see, for example, Weston 1985 or, more recently, Justus/Macguire 2008.

¹¹² Okereke 2008, Dooley/Okereke 2010.

¹¹³ Broome 1992 & 2012, Gesang 2011.

¹¹⁴ Many different suggestions of how to bring some order to the notions of justice and equity are used in the context of anthropogenic climate change negotiations. For one such account see, for example, Heyward 2007. There Heyward distinguishes between nine 'key principles of equity in climate change decision-making' (Heyward 2007, 520). Paris Equity Check (<https://paris-equity-check.org>, last access: 2. December 2019) nicely visualises these differences based on the distinction of 'five commonly discussed visions of equity'. Its results are based on peer-reviewed data from Meinshausen/Robiou de Pont 2017. These differences become again visible in the context of the Paris agreement and the national contributions the participating countries pledge (Nationally Determined Contributions, NDCs). Malte Meinshausen and Yann Robiou du Pont observe that '[c]urrent NDCs individually align, at best, with divergent concepts of equity [...]'. For an attempt to identify the origin of the pervasive disagreement, see Hulme 2009.

disagreement, the second challenges cognitivist positions. It does not only hold that there is in fact disagreement over matters normative to be found but that there are no good reasons to decide upon the justifiability of those different moral conceptions.¹¹⁵ The first assumption only holds that there is descriptive moral relativism.

So, what argument do I want to make based on the empirical fact of disagreement? I claim that the fact of disagreement together with one further assumption raises a serious challenge to climate ethics. Not, however, in the sense that metaethical moral relativism may pose a challenge to climate ethics. That is, not on a merely theoretical level. The challenge arises when it comes to climate action. That is, when we view the disagreement not from a theoretical but from a practical perspective. The challenge arises if a certain ethical theory is not only aimed at contributing to a theoretical debate about the adequate expression of our normative ideals, that is, the adequate ToG, but aims at *action guidance*. Nonetheless, climate ethics wants to do exactly this.

(2) *Assumption (Action-Guiding)* The aim of climate ethics is to inform climate action based on a specific ToG.

The efforts of climate ethicist are not merely directed at the theoretical level. Their aim is not primarily to contribute to a better theoretical understanding of the normative dimensions of anthropogenic climate change. They do, of course, provide such theories. They do so, however, to inform the praxis of a variety of different agents from individuals over companies to states. That is, they aim at answering questions such as the following: How should environmentally conscious individuals or companies behave? What does a fair distribution of the global carbon budget among different countries look like and what climate policies should states, therefore, adopt? This assumption is just as uncontentious as the first assumption. This, again, may appear to state the obvious. Climate ethics is not a self-contented endeavour into the theoretical intricacies of a highly complex issue but wants to make a difference. It wants to guide climate action in the service of a better and just world.

I suggest that a serious challenge for climate ethics arises from these two uncontentious assumptions: the challenge of the legitimate use of force. To see why, we examine a basic scenario that the two assumptions give rise to. Assume that agent A subscribes to ToG₁ and

¹¹⁵ Gowans 2018, 4f.

wants to perform an action P on its basis. Assume further that agent B subscribes to ToG₂ and intends to perform an action Q on its basis. ToG₁ and ToG₂ differ significantly with respect to their normative core assumptions, resulting in a different and often opposing catalogue of actions that each agent deems right or wrong. Let us assume that for a specific situation action P is what is normatively demanded according to ToG₁. The same is true for action Q according to ToG₂. That is, agent A and agent B deem themselves under an obligation to perform the respective actions. In the end, this is what justice calls for. Further, assume that action P and action Q are impossible. That is, both actions cannot be realised at the same time.

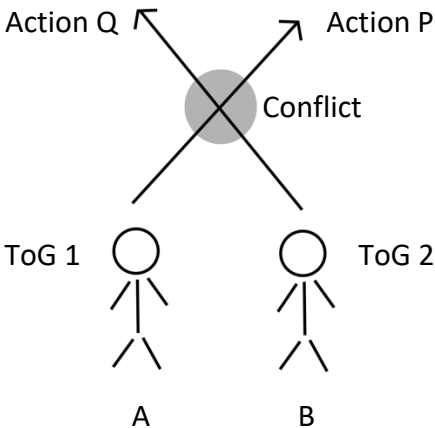


Figure 2. Conflict between agent A and agent B as a result of the impossibility of action P and action Q.

An unavoidable outcome of this basic scenario is a conflict between the two agents. That is, a situation will arise in which agent A can only perform her intended action P against the will of agent B while agent B can only perform her intended action Q against the will of agent A. For each agent, thus, the question arises whether she is justified in performing the respective action against the will of the other agent and, thus, force the other agent into obeying to what one deems right. In other words, for each agent, the question arises under which conditions the use of force is legitimate. The challenge of the legitimate use of force arises. The basic scenario offers a simple setting of how the challenge of the legitimate use of force arises. In the next two chapters, I discuss in detail why and how this challenge is essential to the context of anthropogenic climate change even though agents do not usually interact in such a direct way. Indeed, it is one of the key characteristics of anthropogenic climate change compared to other problems that the interaction and causal relation

of the agents are mediated in unprecedented ways. The schematic outline of this challenge should suffice, however, to introduce the key parts of the mechanics of the challenge of the legitimate use of force. Let us assume for now that it does arise in the context of anthropogenic climate change as well and see why climate ethics has no convincing answer to this challenge.

To see this, let us take the perspective of one of the two agents, for instance, agent A. Confronted with the challenge of the legitimate use of force, how could agent A based on a climate ethics approach argue for the legitimacy of her action? The only option that is open to her is to claim that ToG₁ which she holds is adequate while ToG₂ which agent B holds is inadequate and that, for this reason, it is in her right to perform action P. Moreover, that, therefore, she has all the justification necessary to force her way if agent B does not let her fare. That this answer is not a convincing answer is not difficult to see. For this response to answer the challenge, agent A would have to assume that she has some kind of *privileged access* to knowledge about what is right and wrong while agent B, unfortunately, is in an unfavourable epistemic position and, thus, cannot see the moral truth as she does. We should be more than sceptic about this kind of argumentation for obvious reasons. Here a look at more distant examples than anthropogenic climate change may be helpful, that is, at the history of the atrocities that have been committed in the name of what to some agents appeared to be the truth about what is good and right. This kind of misled conviction has been an essential part not only of colonial endeavours but is an important feature of an endless number of religiously or politically motivated oppression. Given a history full of irritating examples of people fervently believing in the righteousness of their cause while imposing their private beliefs by force, how can agent A, how can we know that we are not the same? Even the most heartfelt conviction after decades of pondering over rightness and wrongness is a poor indicator of the adequacy of our substantive accounts of what is right and wrong. We can, thus, no longer innocently belief that we have insights into the ultimate truths about right and wrong, just or unjust or whatever other normative notion we might cherish—however evident and irrefutable it might seem to us.¹¹⁶

¹¹⁶ This argument may seem self-defeating insofar as the judgment that something would be wrong about imposing one's own view on someone else *again* is a normative statement and, thus, just another ToG. If this were the case, then the objection would indeed not hold. The observation I proposed here is, however, not the argument I will eventually propose. It is only a first intuitive attempt at showing from within a climate ethics perspective that this type of normative theorising runs into a serious challenge to which it has no convincing answer. I show in more detail at the beginning of

The claim to a position of epistemic privilege is, thus, not a viable option. I also do not contend that this is not what climate ethicists hold. On the contrary, I am optimistic that the critique just raised resonates with them. I do argue, however, that they only manage to avoid the challenge of the legitimate use of force by not taking the problem of disagreement seriously enough. That is, they readily resort to some kind of alleged agreement over normative principles and then proceed on this basis. Take, for example, Henry Shue. Shue starts his 'Global Environment and International Inequality' by pointing out in the very first sentence that his reasoning is based on 'three common-sense principles of fairness, none of them dependent upon controversial philosophical theories of justice' (Shue 1999, 531). To the same effect, he claims in his seminal 'Subsistence Emissions and Luxury Emissions' that 'we can lay out the issues fairly clearly and establish that common-sense principles converge to a remarkable extent upon *what ought to be done*, at least for the next decade or so'¹¹⁷. That seems quite a strong assumption. An assumption I seriously doubt based on the omnipresent fact of disagreement introduced above.¹¹⁸

Now, one might be inclined to say that the alleged agreement is not meant to pertain on the factual level but rather on some kind of non-empirical level. From a Rawlsian perspective one could argue, for example, that these principles are what rational agents would agree upon given their reasoning would take place under specific circumstances—such as behind a 'veil of ignorance'¹¹⁹ or other more favourable conditions. However, this kind of rebuttal only seemingly provides a solution to the challenge of the legitimate use of force. For the challenge equally arises. This time only in a slightly more voluminous formulation. That is, it arises as the question of whether one can legitimately enforce a specific action based on the belief that the other agent would agree to one's own view if only she were to reason under specific, more favourable circumstances. This question, however, boils down to the same challenge since for it to arise only *de facto* disagreement is

Chapter 2 that there is a kind of political normativity that is different from ethical normativity, and that political normativity is capable of answering the question of the legitimate use of force while avoiding the charge of a self-defeating structure.

¹¹⁷ Shue 1993, 40.

¹¹⁸ Other examples include Elizabeth Cripps who provides in the introduction to her 'Climate Change and Moral Agent' five axiomatic assumptions for her analysis three of which concern normative principles (Cripps 2013, 7–15). Another example of this kind of normative theorizing can be found in Caney 2005, 767–9. Simon Caney proceeds from an equally axiomatic structure and derives from there 'four different kinds of duties' (Caney 2005, 769). See for Caney also Fn. 52.

¹¹⁹ Rawls 1971, 136–42. A *Rawlsian* perspective is not the same as *Rawls'* perspective. There are in fact good reasons to believe that Rawls would have been critical of this kind of reasoning (see Niederberger 2020).

necessary. This, however, is still presupposed by the rebuttal and the key question arises again: Can it be legitimate to enforce a specific ToG given that someone *actually* disagrees?

Even though only in a footnote, Henry Shue envisions the possibility of *de facto* disagreement. He imagines someone who holds a conviction that amounts to an—according to his ToG—morally outrageous demand. Shue then goes on to write that ‘if someone honestly thought this demand could be fair, we would belong to such different worlds that I do not know what I could appeal to that we might have in common’¹²⁰. It is conceivable why Shue receded from there to the assumption of agreement. However, if we must take the fact of disagreement seriously—as I claim we have no other option than to do—then this offers no viable solution. Were there nothing else we could appeal to under this assumption, such as Shue claims, then we would indeed face an insurmountable problem. I am more hopeful, however. I think that there is something to say with respect to legitimacy even in a setting of disagreement and conflict.

6. Ethical Theory and Political Theory

I contend that the question of how to act under conditions of disagreement and, thus, the challenge of the legitimate use of force is in fact not new. It is this scenario and the questions and challenges it raises that define the very perspective of political philosophy. This is also what distinguishes political theory from ethical theory. Other than political theory, ethical theory starts from the assumption of agreement and shared normative beliefs. Its questions and challenges are therefore of a different kind, and its answers only hold for practical questions in which these conditions are met.

<p style="text-align: center;">Ethical Theory Question</p>	<p style="text-align: center;">Political Theory Question</p>
<p style="text-align: center;">What is the adequate ToG?</p>	<p style="text-align: center;">When is it legitimate to enforce a specific ToG?</p>

Table 3. Ethical theory question and political theory question

¹²⁰ Shue 1993, 58.

The main task of normative ethical theory is to spell out a specific ToG: a specific account of what is right and wrong, good and bad, just and unjust, fair and unfair—or whatever normative concepts one may prefer. Thereafter, further tasks arise. One such task is the defence of a specific ToG against other opposing accounts by demonstrating its superiority, for example by way of its ability to better capture some shared normative intuitions. Still another area of ethical inquiry is the application of a general account of a certain ToG to more specific problems such as they arise in the context of medical treatments or anthropogenic climate change. Political theory, on the contrary, does not aim to answer these kinds of questions., nor does it intend to spell out a specific ToG. Rather, it starts with the idea of conflict over those normative ideals. It may indeed seem—as it did to Shue—that in such a situation not much is left to say. Political theory, however, claims that there is. Not only is there something left to say, but there is also something left to say from a normative perspective. In a conflict situation, agents can enforce their wills either legitimately or not legitimately. The reasons legitimacy provides are not merely reasons of self-interest. At the same time, it does, however, not depend on the specific ToGs of the conflicting agents. I speak of political normativity or legitimacy to refer to this kind of normativity.¹²¹

I contend that at the core of the difference between ethical and political theory stands the difference between agreement and disagreement. To illustrate, imagine a situation in which two agents intend to perform two impossible actions. Both claim to be justified in performing the respective action. This time, however, both agents do share the same ToG. The problem that arises in such a situation is better described as one of coordination rather than of conflict, for the questions the agents have to answer to solve this kind of collision of plans of action differ from the questions a situation of *de facto* disagreement raises. If there is agreement, then there is, at least in principle, a common basis to solve the collision of impossible actions. Since the reason for the collision can only be that one of the agents is confused about what their shared ToG demands in the given situation from each of them. This, however, is a different challenge from the challenge of the legitimate use of force. It follows that conflict and force necessarily presuppose *de facto* disagreement.

¹²¹ The distinction between ethical and political normativity is why I have been using the term legitimacy when spelling out the challenge of the legitimate use of force from the outset. The use of the notion of 'legitimacy' is often confined to political contexts, while talk of 'values', 'wellbeing' and 'justice' is more often to be found in ethical discussions. I claim that this makes good sense as there are, indeed, on the most general level two different kinds of normativity.

This way to distinguish ethical and political theory is contentious. Especially when it comes to much of normative political theory over the last decades. Most of it was conducted from an ethical standpoint. From there the field of politics appeared to be just one of the many fields of applied ethics to which to apply whatever ToG appears most convincing to one. Over the last decade, however, growing discontent with this kind of theorising and understanding of political philosophy has been voiced.¹²² It has been argued that political philosophy has been reduced to nothing more than a branch of applied ethics. It has been reduced because—as these scholars hold—to philosophers such as Thomas Hobbes and Immanuel Kant political philosophy meant something quite different. It was not just the application of a specific ToG to the realm of politics.¹²³ I think they are right and my proposal of how to distinguish ethical and political theory provides one way to mark the difference between both kinds of theoretical endeavour.¹²⁴ One of the key challenges that such a view on political theory has to answer is to explain the difference between political normativity and ethical normativity. I think that Kant provides an especially convincing political theory that is built around an answer to this question. At the beginning of the next chapter, I provide an outline of Kantian political theory.

Before doing so, let me indicate how Kantian political theory would answer the question that motivated this chapter, that is, the disturbing question. So far, I argued that the issue that anthropogenic climate change raises is the challenge of the legitimate use of force and that ethical theory is not capable of answering this question as it necessarily makes use of contentious normative theories. Given this, I claimed that informing our climate action by such a specific ToG is itself a wrong, and a more fundamental one, as we would force other agents to act according to our lights. This implied rejecting the option to justify such behaviour by claiming privileged access to knowledge about what is right and wrong. So how would Kantian political theory make sense of this intuitive objection to an ethical theory solution to the challenge of the legitimate use of force? A Kantian political theory such as I

¹²² See for an overview of this line of critique and the major themes that are discussed by those sympathetic with this critique Rossi/Sleat 2014.

¹²³ Rossi/Sleat 2014, 691.

¹²⁴ Let me stress briefly that my claim is not that we can either do ethical or political theory. They are not mutually exclusive. What I claim is that they both speak to different questions and, thus, practical settings. While ethical theory aims at developing a convincing answer to what is good and right speaks to all of those who are in agreement, political theory emerges as soon as disagreement between agents over ethical standpoints enters the stage. They are, thus, two markedly different but, nevertheless, equally valid endeavours.

want to propose is centred on a normative ideal of non-domination. The wrong that it captures is the wrong of domination. Domination in this Kantian sense occurs whenever an agent is in a position to impose her will on another agent—irrespective of the reasons an agent might have for imposing her own view. According to Kantian political theory, then, acting based on a specific ToG in the context of disagreement amounts itself to a form of domination. There is more to be said about the distinct source of this kind of political normativity. What we can see, however, that it would allow us to capture our intuitive assessment of the inability of ethical theories to solve the challenge of the legitimate use of force.

Let us also take a quick glance at the solution Kantian political theory proposes to the wrong of domination. Doing so allows me to make good on a key contention that motivates this thesis. That is, the claim that delving into the normative intricacies of answering the disturbing question with respect to anthropogenic climate change has important consequences for our more practical concerns of how to react to it. The solution Kantian political theory envisions to overcome the relations of domination is the establishment of a republic. That is, the establishment of the rule of law and a democratic system of legislation. For it is positive law that defines in a state of disagreement to content of what is right and wrong and consequently of what ToG is in a position to demand obedience for all subjected to the rule of law, irrespective of their agreeing. The democratic process ensures that no one has to live by rules others impose on them, however strong they might believe in the adequacy of their own opposing beliefs. Therefore, democracy is the only political order that overcomes the wrong of domination ‘in the right way’¹²⁵.

This understanding of the disturbingness of anthropogenic climate change through the lens of domination and of how to overcome it—namely, by the establishment of democratic institutions—contrasts the scepticism about democracy that is increasingly gaining ground over recent years. From the famous NASA scientist James Hanson—one of the first to bring the fact of global warming home to the US public through an influential testimony in the US Congress in 1988¹²⁶—and the important environmentalist James Lovelock to the climate ethicist Dale Jamieson a new scepticism with respect to democracy is gaining ever

¹²⁵ Forst 2015, 98. Rainer Forst states along the same lines as I argued here that ‘goddess *Justitia* does not come into the world to dispense gifts; her task is instead to banish arbitrary rule, i.e., domination. Democracy is the form of political order capable of accomplishing this in the right way. The task of democracy is to secure the political autonomy of those who are supposed to be both subjected to and authors of binding norms’.

¹²⁶ Jamieson 1992, 140.

more ground.¹²⁷ This view is mirrored in a broadly welcomed shift from state actors to non-state actors and forms of private governance.¹²⁸ However, not only scientists are turning away from democratic processes. Roger Hallam—a climate activist and co-founder of extinction rebellion—claimed in a recent interview when asked on the role of democratic processes the following.

‘When society acts so immoral, democracy becomes irrelevant.’¹²⁹

This quotation captures neatly a view that seems to be at the centre of the growing scepticism about democracy. Based on a specific ToG anthropogenic climate change seems so outrageous and what to do so obvious that doing what has to be done—so it is alleged—trumps any regard for democratic processes. I argue that this view strongly misconceives the reason for a democratic political order. The need for democratic processes does not rest on their ability to realise a pre-political ToG, whatever values one might cherish. To the contrary and as I argued above, democracy is necessary to establish such a binding normative basis in the first place, one on which those who disagree can legitimately be forced into abiding by the democratically established rules. Democracy does not rest on some pre-political agreement but on disagreement, and that is why we need democratic processes. Moreover, given the fact of disagreement, there is no legitimate shortcut to climate action that avoids democratic processes. The challenging claim Kantian political theory confronts us with is, therefore, the following: We must face the possibility that while being absorbed in restless and even self-less efforts to overcome the wrong of anthropogenic climate change *as we conceive it*, we might actually be complicit in perpetuating long-standing and deeply engrained structures of global domination.

I end with a quote from Jeremy Waldron, which brings out nicely this political theory understanding of democracy’s role in general. In his illuminating article on Kant’s legal positivism he writes the following.

‘Often the spirit of our normative arguments about justice and rights is "Here is what I would do, if I ran the country." But any discussion in jurisprudence and political philosophy must first acknowledge the fact that there are many of us and that we disagree

¹²⁷ Stehr 2016, 37; Gehrmann/Niederberger 2020.

¹²⁸ UNEP 2018.

¹²⁹ See <https://www.spiegel.de/wissenschaft/technik/extinction-rebellion-gruender-roger-hallam-wenn-eine-gesellschaft-so-unmoralisch-handelt-wird-demokratie-irrelevant-a-1286561.html> (last access: 3 December 2019), my translation.

on these matters. It is important, therefore, for theorists to pause occasionally in the elaboration and defense of their own proposals to reflect on the significance of this plurality and to grasp the point that law claims our allegiance in the circumstance of controversy over the substantive values that it embodies. That proposition can seem scary, for it invites us to compromise our heartfelt advocacy and to share our carefully constructed intellectual world with views about justice that we regard – perhaps for good reason – as wrongheaded or iniquitous. It may help in allaying these apprehensions, however, for theorists of justice to realize that, in taking this step, they are not betraying their Kantianism; on the contrary, they are proceeding quite deliberately in the company of Immanuel Kant.¹³⁰

This quote nicely captures the spirit of the critique presented here and the role of democratic political institutions, such as the rule of law that is at the heart of Kant's political theory while disagreement, as it appears in conflict and violence, keeps this heart beating. Waldron is also correct to emphasize that even though Kant asks us to consider putting aside our dearest normative convictions, he views no tension in claiming at the same time that '[i]f justice perishes, then it is no longer worthwhile for men to live upon the earth'¹³¹. Let us now see how this is possible.

¹³⁰ Waldron 1996, 1537–8.

¹³¹ DoR 6:332 (For an explanation of the abbreviations of Kant's works used in this dissertation, see Fn. 134).

III.

Chapter Two. Kantian Political Theory, a Kantian Notion of Domination and Forced Climate Displacement

This dissertation investigates a question that so far has not attracted much attention. I called it the disturbing question. The name is meant to carry two messages. Firstly, it ought to reflect the fact that the core of the question is the issue of how to adequately understand the disturbingness of anthropogenic climate change or, put differently, the kind of wrong anthropogenic climate change poses. It prompts us to make our normative approaches explicit that frame our understanding of anthropogenic climate change as one of the most daunting challenges humanity faces in the 21st century. This is important because those approaches predetermine the way we gain access to more practical issues. Such as those discussed in distributive climate justice and individual climate ethics.¹³² Secondly, this name is meant to express the fact that raising this question itself is very likely to be irritating and somewhat disturbing to a philosophical debate on anthropogenic climate change that quite deliberately focuses on those subsequent and more practical issues because of an urgency to act on anthropogenic climate change that is continuously highlighted. Answering the disturbing question appears from this vantage point to be a merely academic and unduly pastime.

I challenged this view on two grounds, one internal the other external. The broader aim of this critique was to establish that even though it may be obvious in a certain sense that anthropogenic climate change poses a great challenge to humanity, it is by no means clear how exactly it does so. To see this, I started by reminding us that whether something appears as a problem at all—and as the specific kind of problem it appears to be—depends to a large extent on the normative lenses we use to look at it. We then examined the normative lenses that are applied within climate ethics to analyse the normativity of anthropogenic climate change and found that they are—contrary to what is generally assumed—not up to the task. It was the aim of the first, internal challenge to show this. The internal challenge turns on the fact that anthropogenic climate change is not a deterministic but a probabilistic outcome, or a risk. That is, we do not know what effects the significant emission of greenhouse gases will have in the future, but we rely on scientifically backed

¹³² For this terminology and structuring of the debate in climate ethics, see Fragnière 2016, 798.

predictions. That is on assertions that are all qualified by probability statements. This might seem like only a minor shift in how we frame the phenomenon of anthropogenic climate change. I went on to show, however, that the established normative theories within climate ethics are—contrary to what it seems to many—not able to explain why the imposition of a risk is a problem at all. They can perfectly explain why a specific negative outcome that will occur *with certainty* gives us good reason to be concerned and to act immediately but the same theoretical explanation *does not work* for risks. I raised this immanent problem of the established normative theories as a first step to do away with the misleading appearance that the question of what is so disturbing about climate change has an obvious answer. It does not.

However, delving into the intricacies of analysing the normative dimensions of anthropogenic climate change may still seem like an academic preoccupation. That much more depends on how we answer the disturbing question was the aim of the second, external challenge. After preparing the ground by way of the internal critique, I then argued that the established normative theories of climate ethics are in fact not up to the task of guiding our actions in the context of anthropogenic climate change. To see this, we had to consider two uncontentious assumptions: Firstly, the empirical fact of widespread disagreement over the adequate ToG as well as the individual and collective climate duties they support. Even though already a problem for rather localised settings, the problem of disagreement is inescapable when it comes to Anthropogenic climate change as *the* paradigm example of the changed circumstances of action that define the Anthropocene. Adding to this secondly, that the aim of our normative theorising is precisely not mere theory but to inform our praxis, the challenge of the legitimate use of force arose. For we, given this aim, cannot but face up with the ubiquitous fact of conflict that results from the opposing views about what we deem to be the normative ideal we ought to strive for in the context of anthropogenic climate change, and the kind of climate action we therefore deem legitimate. From there it follows that we must enforce it against others who do not share this view. Consequently, it is the focus on practical issues that is defining for climate ethics that raises this challenge. So how to answer the question of the legitimate use of force against the backdrop of disagreement?

I argued that this is the very question that political theory is geared towards answering as opposed to ethical theories. Political theory starts with conflict. At least an

understanding of political theory as I defend it. At the end of *Chapter One*, I set out in broad strokes a specific approach to political theory that I deem especially convincing: *Kantian* political theory. It was against the backdrop of this Kantian political theory that we could see the importance of the disturbing question and thus the way we frame the disturbingness of anthropogenic climate change. According to Kantian political theory, the solution to the question of enforceable duties is the establishment of democratic institutions. This solution, however, stands in stark contrast with a scepticism about democracy that gains ever more ground among academics and the broader public alike. I sketched the challenge that a Kantian political theory account of the disturbingness of anthropogenic climate change poses as the prospect that, while being absorbed in restless and selfless efforts to overcome the wrong of anthropogenic climate change *as we conceive it*, we might actually be complicit in perpetuating long-standing and deeply engrained structures of global domination.

Political theory accounts are rare in the normative theorising on anthropogenic climate change. A Kantian political theory more specifically has so far only been applied to more traditional cases that are not characteristic of the changed circumstances of action of the Anthropocene. Therefore, the same question I raised with respect to the established normative theories equally arises with respect to political theory in general and Kantian political theory more specifically. That is, the question of whether the established accounts of political theory are capable of capturing the kind of wrong that anthropogenic climate change poses. More specifically with respect to Kantian political theory, the question arises of whether anthropogenic climate change can indeed be described as a form of domination. This is the question I want to tackle in the remaining two chapters. I contend that we can modify Kantian political theory to apply to anthropogenic climate change, which shows that anthropogenic climate change constitutes a form of *collective domination*.

Before I turn to the task of developing this thesis, I present, in more detail, the general traits of Kantian political theory and the role of the normative ideal of freedom as non-domination (1). This provides the basis for introducing in more detail the political wrong of domination and for defining on its basis the tasks that lay ahead of us more precisely (2). The main part of this chapter is then devoted to showing how we can understand anthropogenic climate change as a relation of domination among agents. So far, the notion of domination has primarily been applied to near-range relationships. Anthropogenic climate

change, however, is defined by the fact that the relations it establishes between agents are a complex and indirect web of causal chains that stretches over vast segments of space and time.¹³³ Climate changes are nothing that one agent could inflict on another agent—unlike a kick in the shins. Taking my cue from the burgeoning social science literature on forced climate migration, I develop a notion of force that is tailored to Kantian political theory and that can be fruitfully be applied to this kind of relationship between agents (3-6). Throughout, I contrast my proposed analysis of force with a different analysis of force prominent in forced migrations studies. In the final section, I provide reasons for why the prominent alternative is not convincing also in broader terms irrespective of the Kantian political theory outlook (7).

This allows us to see in addition that anthropogenic climate change *itself* must be understood as an instance of the basic scenario of conflict that gives rise to the challenge of the legitimate use of force. It is thus the bringing about of climatic changes and its social consequences such as forced migration that already calls for a different approach from climate ethics. It does not only arise in a perspective of climate action which I used above to introduce the challenge.

1. A Kantian Political Theory or Kantian Republicanism

Immanuel Kant develops his political theory in the first part of his late work ‘The Metaphysics of Morals’ which is entitled ‘Doctrine of Right’.¹³⁴ In this section, I quote a famous paragraph from his ‘Doctrine of Right’ to introduce some of the key features of Kantian political theory. It is the outline of Kantian political theory and not Kant’s political theory because, not only do we see further as we stand on Kant’s shoulders, but we are confronted with a different world and have to revise and develop his theory in the light of the new challenges the world poses.¹³⁵ One such challenge with markedly different structural features he could

¹³³ See *Introduction*, 9.

¹³⁴ References of Kant’s work refer to volume and page numbers of the Prussian Academy Edition of ‘Kants gesammelte Schriften’ (Berlin: Walter de Gruyter and predecessors, 1900ff). References to the ‘Doctrine of Right’ are abbreviated as ‘DoR’, references to the German original are abbreviated as ‘RL’. References to the ‘Groundwork of the Metaphysics of Morals’ are abbreviated as ‘Gr’, references to the German original as ‘GMS’. Reference to ‘Towards Perpetual Peace’ are abbreviated as ‘PP’, references to the German original as ‘ZeF’. I use the translations from the Cambridge Edition of Kant’s works as provided by Mary Gregor (see Kant 1996a & 1996b & 1996c).

¹³⁵ See Forst 2015, 93. What I propose is, of course, only one specific reading of Kant. There are many philosophers who draw on Kant’s ideas developing from there very different political and ethical theories. Prominent traditions that invoke Kant as one of their key predecessors include the Frankfurt School following Jürgen Habermas or the vast school of thinkers building on John Rawls’s ideas. The debate between the two in the 1990s shows in an exemplary way how different the views are that those traditions came to hold. With respect to the ‘Doctrine of Right’, there is also a relatively recent and ongoing debate. There are two main interpretative camps. The traditional and deeply engrained reading holds that

not possibly imagine but that is by now common knowledge for many of us is anthropogenic climate change. Before taking up the task of developing a Kantian political theory of anthropogenic climate change, let me introduce three key characteristics of Kantian political theory by discussing the following brief section of Kant's 'Doctrine of Right'.

'[H]owever well disposed and law-abiding [right-loving/rechtliebend]¹³⁶ men might be, [...] before a public lawful condition is established, individual men, peoples, and states can never be secure against violence from one another, since each has its own right to do *what seems right and good to it* and not to be dependent upon another's opinion about this. So, unless it wants to renounce any concepts of Right, the first thing it has to resolve upon is the principle that it must leave the state of nature, in which each follows its own judgment, unite itself with all others (with which it cannot avoid interacting), subject itself to a public lawful external coercion, and so enter into a condition in which what is to be recognized as belonging to it is determined by law and is allotted to it by adequate power (not its own but an external power); that is, it ought above else to enter a civil condition.'¹³⁷

The *first feature* that is crucial to Kant's political thinking is the distinction between two different kinds of states or circumstances we can find ourselves in. He refers to them as the 'state of nature' on the one hand, and the 'civil condition' or 'public lawful condition' on the other hand. In line with traditional uses of these terms, he defines the 'state of nature' as a state absent of any kind of political institutions, while the 'public lawful condition' is defined by the very existence of such political institutions. The state of nature means lawlessness, while the civil condition means the existence of public lawful order. To understand the role the two kinds of states play in Kant's rationale as well as why they play such a decisive role in his political thinking, we need to have a closer look at each of them.

the 'Doctrine of Right' is the application of Kant's ethical works to the realm of politics. More recently, scholars working on Kant have shed serious doubt on this reading and argue for the systematic independence of the 'Doctrine of Right' from his ethical writings by pointing out the indebtedness of his political thinking to Thomas Hobbes (e.g. Flickschuh 2000 & 2012; Meckstroth 2015; Tuck 1999; Waldron 1996 & 2006). The interpretation I propose here strongly sides with the latter camp. According to this reading Kant follows the 'broadly Hobbesian thought [...] that if ethics could effectively regulate behaviour in political communities as it does amongst (say) friends and acquaintances, we would not require politics' (Rossi/Sleat 2014, 691) nor political theory.

¹³⁶ This is an unfortunate translation by Mary Gregor. Kant is talking about the state of nature here. The key characteristic of this state is, however, the absence of the rule of law. What Kant imagines here are not agents who readily and happily follow the *law* (which does not exist in such a state) but who readily and happily act according to what they think is *right*. They—drawing on Kant's formulation in the next sentence—make use the 'concept of Right' (DoR 6:312) and are not prepared to 'renounce' (DoR 6:312) it, that is, simply act on self-interested grounds. Therefore, Kant uses the German expression of *rechtliebend* (RL 6:312) (right-loving) and not the German equivalent to law-abiding, which would be *gesetztestreu*.

¹³⁷ DoR 6:312.

State of Nature	Civil Condition/ Public Lawful Condition
(1) Agents disagree over adequate ToGs	(1) – (2) as in the State of Nature
(2) Unavoidability of interaction between those agents	(3) Democratic political institutions including legislative, judicatory and executive authorities
(3) Result = Conflict	(4) Public (state, international and cosmopolitan) law that determines what is right and wrong
	(5) Result = Peace

Table 4. Defining features of the state of nature and the civil condition/public lawful condition

Let us start with the state of nature. Examination of the quote demonstrates that the first characteristic that defines such a state is the fact that in it each agent acts according to her *own* judgement regarding what is *right and wrong*. In the terminology introduced in the previous chapter, we can say that each agent acts according to her own ToG¹³⁸. The second characteristic that defines the state of nature is the *unavoidability of interaction* as each of these agents is trying to realise her action plans based on her respective ToGs. Given the limited space, the action plans of those agents cannot but collide at some point.¹³⁹ This has the necessary¹⁴⁰ consequence that all agents in the state of nature inevitably live under the

¹³⁸ It would be more precise to use the broader notion of ethical theories that also comprises non-consequentialist accounts of ethics for it is contentious whether non-consequentialist theories share the structural feature of a ToG. Kant would certainly deny that. What is right is determined according to the categorical imperative irrespective of possible consequences (see Gr, section I, esp. 4:402). To avoid unnecessary confusion, I will nevertheless stick to the notion of ToG.

¹³⁹ The fact of limited space plays an important role in Kant's argumentation. For an interesting attempt to spell out this justificatory role in the 'Doctrine of Right', see Huber 2017.

¹⁴⁰ In the section that is suppressed in the quotation from the 'Doctrine of Right', Kant argues that the resulting conflict is indeed *necessary* in the strictest possible sense. It is a result that 'lies *a priori* in the rational idea of such a condition [state of nature]' (DoR 6:312; my emphasis). Thus, Kant takes the unavoidability of conflict to be a non-empirical claim that follows from the defining features of a state of nature. It is not necessary to wait and see how the coexistence of various agents under these conditions plays out. I cannot prove the stronger claim here. I am confident, however, that the conclusion is also supported by experience. We hardly find ourselves in a situation where empirical evidence would suggest neither the absence of conflict nor that it originates from substantial disagreement over the adequate ToG. We should

threat of conflict. These three features are familiar to us. What we find here again is the basic scenario I introduced at the end of *Chapter One*¹⁴¹ as defining the very framework of political theory as opposed to ethical theory. It is Kant's contention as well that political theory takes the setting of conflict as its starting point. Moreover, we can again identify as the chief challenge of such a state of nature the question of the legitimate use of force or—formulated in a 'Kantian mode'¹⁴²—the question of enforceable duties.¹⁴³

It is the answer to this challenge that necessitates the distinction between the state of nature and the public lawful condition. Kant claims that the only way to overcome the state of nature and its propensity to conflict is the establishment of political institutions, and the most important institution is the rule of law under democratic control. The reason for this is simple. Only if the laws are determined by a united will then they can be enforced *legitimately* for only then 'all decide about all, hence each about [herself]'¹⁴⁴ and only then, under this condition, no wrong is done because it is 'only to oneself that one can never do wrong'¹⁴⁵. I discuss the reason for this when introducing the third feature. The civil state is capable of overcoming the conflictual disposition of the state of nature insofar as right and wrong is now determined by the law and the monopoly of power to enforce the law resides with the state. This internal necessity of political institutions¹⁴⁶ is why Kantian political theory is an important strand of the continental tradition of republican thinking.¹⁴⁷ This is not to say, however, that Kant was a statist thinker. He explicitly claims that the public lawful condition is established only if all the existing republics order their relations to individual agents that are not part of the republic as well as to other republics in a lawful manner.

be hard pressed to explain many of the conflicts we experience worldwide without assuming that its proponents believe in the moral superiority of their ideology.

¹⁴¹ See *Chapter One*, Sec. 5.

¹⁴² Flikschuh 2015, 653.

¹⁴³ From a Kantian perspective it is not so much the question of the legitimate use of force by an agent to realise an action she deems herself to have a right to perform, but the question of the legitimate use of force to make another agent act according to her duty. The difference lies in that the latter formulation presupposes the distinctly Kantian idea that each claim to a right to do something *necessarily* presupposes the claim that all other agents have a duty to live up to this right, that is, not to hinder me in if I want to realise my right. Rights are based on duties and not *vice versa* as interest theories of rights would for example hold. Thus, in a Kantian view, an agent does not only enforce an action it deems herself to be justified in performing, but in doing so she enforces a duty that the other agents do have but fail to live up to. Even though a crucial and characteristic difference for a distinctly 'Kantian mode' (Flikschuh 2015, 653) of normative theorising, I leave this issue aside here and continue speaking of the challenge of the legitimate use of force. For more details on this mode of theorising, see Flikschuh 2015, 657.

¹⁴⁴ PP 8:295.

¹⁴⁵ DoR 6:314. Here Kant refers to it as the principle of 'volenti non fit iniuria' (to a willing person, injury is not done).

¹⁴⁶ For an elaborated discussion of the intrinsic link between a specific normative ideal of freedom and political institutions as a prerequisite for realising this ideal, see Niederberger 2011.

¹⁴⁷ Contributions from key contemporary authors of both strands of republican thinking can be found in Niederberger/Schink 2013. Philip Pettit explicitly discusses the two main strands in his contribution (Pettit 2013).

This necessity gives rise to international law and cosmopolitan law next to the more limited state law.¹⁴⁸

The *second feature* that is important to Kantian political theory, which we find in the quotation, is Kant’s assertion that each agent has a duty to leave the state of nature. The so-called *exeundum* principle or *exeundum* duty.¹⁴⁹ This duty is based on a distinctly Kantian political normativity that marks the state of nature as a normatively deficient state. It gives rise to this claim because the identified normative deficiency can only be overcome by all agents exiting the state of nature and entering into a public lawful condition. So, what is this normative political ideal? Let me start by introducing a more detailed description of this kind of political normativity before I explain its distinctly political nature as the third feature that defines Kantian political theory. The core notion of Kantian political normativity is a specific notion of freedom. Kant defines this kind of political freedom at an earlier point in his ‘Doctrine of Right’ as the ‘[i]ndependence from being constrained by another’s choice’¹⁵⁰.

Freedom as Non-Domination
‘Independence from being constrained by another’s choice’ ¹⁵¹

Table 5. Definition of freedom as non-domination

After introducing this definition of freedom Kant argues that this ‘is the only original right belonging to every man by virtue of his humanity’¹⁵². In the title to the subsection of the ‘Doctrine of Right’ in which he introduces this definition he also speaks of the ‘only innate right’¹⁵³. It is this right Kant refers to in the quotation when he claims that each agent ‘has

¹⁴⁸ See DoR 6: 311. Kant addresses the need for a cosmopolitan lawful order and its necessary content at greater length in his *Towards Perpetual Peace* (Kant 1996b).

¹⁴⁹ It is derived from the Latin phrase *exeundum est e statu naturali* that Kant uses, that is, the claim that the state of nature is to be left. For the important role of this principle in Kant’s Doctrine of Right, see Byrd/Hruschka 2010, 213.

¹⁵⁰ DoR 6:237.

¹⁵¹ DoR 6:237.

¹⁵² DoR 6:237.

¹⁵³ DoR 6:237. The notion of an ‘innate right’ raises many questions. An increasing number of scholars seem to regard this notion as pointing to some kind of ‘rights-foundationalism’ (Flikschuh 2015, 656). For an overview on the literature that does so, see Flikschuh 2015, 656. I think that this is mistaken. It takes this notion to indicate merely that it is a non-positive right and is thus a right that is not afforded by positive law (see Hutter 2016, 639). This claim, however, does not

its own *right* to do what seems right and good to it and not to be dependent upon another's opinion about this'.¹⁵⁴ For if there is only one right in the state of nature, then the only right he can refer to in the quotation that is part of the section where Kant illuminates the very state of nature is this right to freedom. However, what does this kind of freedom amount to?

The kind of freedom Kant has in mind is best understood as a specific notion of non-domination. This is the normative ideal that no one ought to be subject to the will¹⁵⁵ of someone else. I am free if no one is in a position to enforce their ideas by the exercise of brute power; I am unfree when someone can. I am dominated when someone is in a position to impose her will on me.¹⁵⁶ This is why the state of nature is a normatively deficient state. In the state of nature, the powerful can just do as they will and, if necessary, they resort to violence to make their will prevail. It is the rule of the powerful. It is important to note here, however, that this does not imply that those who impose their will are malicious or evil-minded. On the contrary, those who do so, may do so because they fervently believe that what they do is right, what justice demands. Whether the agent imposes her will because of self-interested reasons or because of a specific ToG she holds makes no difference, however. It is the mere prevalence of one will over another that suffices for domination to come about. And it is only the republic—according to Kantian political theory—that can end this state by introducing an order of democratic self-rule in which 'all decide about all,

entail some axiomatic status. Such a conclusion would be too hasty. I propose one possible understanding of the priority of this right with respect to positive law that avoids this conclusion in the next subsection.

¹⁵⁴ DoR 6:312; my emphasis, original emphasis suppressed. Let me add a few words on an important restriction to which this right to freedom is subject. When introducing this notion of freedom Kant is quick to add the qualification that one has a right to this kind of freedom only 'insofar as it [one's freedom] can coexist with the freedom of every other in accordance with a universal law' (6:237). The origin of this *a priori* restriction—it seems to follow directly from Kant's definition of right in *§B What Is Right?* in the *Introduction to the Doctrine of Right* (DoR 6:230)—is an interesting question. I can leave this qualification aside here, however, as I am investigating whether anthropogenic climate change can be understood as a constraint to freedom understood in Kantian terms *at all*. Whether the claim to be free from such a constraint—once it is shown that anthropogenic climate change can indeed be understood as such a constraint—is compatible with the *a priori* restriction is then another, *subsequent* question.

¹⁵⁵ In the citation, Kant uses the term 'choice' (*Willkür*) not 'will' (*Wille*). 'Choice' and 'will' denote two different agential capacities in Kant's theory of action. He defines 'choice' in the *Introduction to the Metaphysics of Morals* as 'a faculty to do or to refrain from doing as one pleases [*nach Belieben*]' (DoR 6:213); emphasis in the original). It is, thus, the ability of an agent to act according to reasons and in this sense freely. This usage of 'choice' was common in Kant's days (Esser). Today, we refer to this ability rather as 'will'. Therefore, I prefer the expression 'will' instead of 'choice'. Before introducing this clearly differentiated terminology in the *Metaphysics of Morals* Kant himself made a rather loose usage of both terms in his earlier works on practical philosophy such as in his *Groundwork of the Metaphysics of Moral* (1785) and the *Critique of Practical Reason* (1788). For a good characterisation of the two notions and further literature, see Esser 2016a und Esser 2016b.

¹⁵⁶ For a defence of a similar notion of relational freedom, see Schink 2018, 7-68, esp. 64-8.

hence each about [herself]¹⁵⁷ and the rule of the powerful is dissolved. That is why there is an inherent link between this normative ideal and the *exeundum* duty.

This notion of freedom as non-domination is the normative core of a distinctly Kantian political theory. It differs from ethical normativity in two respects: firstly, with respect to the content of the duties that it gives rise to and, secondly and most importantly, with respect to its form. Let us start with the content of the duties. While ethical normativity gives rise to many different kinds of duties depending on the specific ToG an agent holds, political normativity supports only a single duty—the duty of every agent to leave the state of nature, if necessary by force. From there it follows that the only political wrong an agent can do is to violate this *exeundum* duty. Roughly speaking, an agent violates this duty insofar as she lives in a state of nature and performs actions that are not aimed at fulfilling this duty, that is, that are not aimed at bringing about the necessary political institutions to overcome the state of domination. This political wrong is different from ethical wrongs. That is, as an enforceable duty it only aims at the outward behaviour of any agent, whereas an ethical assessment of the normative status of an agent takes into account factors such as knowledge, control and the agent's intentions. While characteristic, the decisive difference between political and ethical normativity is not so much the content of the duties they give rise to but a rather formal feature. That is, the respective *sources* of the duties, whatever their contents may be.

The *third feature* I want to discuss is the source of political normativity. Answering this question will also allow us to shed some light on a question we already raised at the end of *Chapter One*. When raising the challenge of the legitimate use of force I claimed that the notion of freedom as non-domination as distinctly political normativity survives the fact of disagreement while ethical normativity does not. However, why is this so? Why can political normativity claim to be binding for agents even under the condition of disagreement and consequently legitimately be enforced against dissenting voices? Why is it not just another expression of ethical normativity? Answering this question is not only crucial for explaining the alleged sharp difference between ethical and political approaches to anthropogenic climate change but the possibility of political theory as a distinct normative endeavour from ethical theory in general.

¹⁵⁷ PP 8:295.

I contend that political normativity survives the empirical fact of disagreement and is in a position to legitimately command obedience even under the fact of disagreement because disagreement is its very source, whereas the same fact of disagreement undermines the viability of any ethical theory approach for its dependence on agreement.

Ethical Normativity	Political Normativity
Ethical normativity is established by agreement on a specific ToG.	Political Normativity is established by disagreement over adequate ToG.

Table 6. Sources of ethical and political normativity

To examine this, let us imagine again a situation in which the action plans of an agent A and an agent B are impossible. For ethical normativity to provide a solution to this coordination problem, the two agents must agree over a specific ToG as their shared normative basis. I use agreement in a broad sense here. I do not necessarily mean that some kind of contract or explicit act of agreeing to a specific ToG must have taken place between the two agents. It is important that the two agents hold the same ToG. By holding this shared ToG, they bind themselves to the specific ethical duties that follow from the respective ToG. Ethical normativity is—in Kantian terminology—based on an act of personal autonomy. Given such agreement, there is an ethical solution to the situation of impossible action plans as one of the two agents in acting necessarily violates her own standards. However, this ethical basis of agreement takes us only so far as the agreement goes. An agent cannot be criticised for not complying with a standard she does not deem right. Here we encounter a situation not of merely impossible action plans but of conflict, in other words, not of agreement but of disagreement. Only the former can be solved on the basis of ethical normativity. Therefore, arguments that start with an ethical theory outlook often refer to some kind of implicit or meta-level agreement that allegedly obtains to get their argument off the ground under the circumstances of *de facto* disagreement. Political theory does not take a stance on this claim. Disagreeing agents might even hold the same ToG on some hypothetical level. It does assert, however, that if we encounter a situation of *de facto* disagreement and conflict recourse to an alleged agreement on some hypothetical level is of no help, the challenge of the legitimate use of force equally arises under this

assumption. This time, however, in the slightly more voluminous formulation. That is, as the question of whether or not we can legitimately enforce a specific ToG given (i) that someone *actually* disagrees and (ii) that we think that she does do so only on a factual but not on some hypothetical level that is, for whatever reason, inaccessible for the agent in the current situation.¹⁵⁸ Given that there is no way around the challenge of *de facto* disagreement, what source is there left for political normativity to answer the challenge? I argue that political theory can do so because it establishes the bindingness of the *exeundum* duty by way of disagreement, not agreement.

I suggest that Kantian political theory uses the following anchor point for establishing the bindingness of political normativity: even if all the implicated agents disagree over the adequateness of the respective ToGs they hold, they nevertheless do all make claims to the same effect—they all claim *to have a right* to perform the actions they perform. Put differently, disagreement is something different from talking past each other. In order to disagree, those disagreeing must disagree about something, such as the question of what each of them has a duty to do or not to do. Therefore, it is important that each of the conflicting agents does hold a specific ToG based on which each agent claims that she is justified in performing the respective action. Only in so doing will the agents provide the source into which political normativity taps. This has an important implication: If agent A gets into conflict with agent B and believes that she, agent A, is right to do so, while agent B does not make any claims to the rightness or wrongness of her actions but simply aims to realise her course of action by force—then no demands on agent A's behaviour stem from a political normativity. Agent A may, of course, see herself bound by her ethical convictions that originate in the specific ToG she holds. Moreover, this may be an important factor in determining her behaviour towards agent B, but these duties are not related to political normativity. Political normativity needs disagreement to get off the ground. In the case where only agent A makes claims to the rightness of her actions while agent B does not do so, there are only impossible actions but no disagreement and, thus, no conflict which is necessary to kick off the mechanism of political normativity. Stated differently and in Kant's own words, 'unless it [the agent] wants to renounce any concepts of Right'¹⁵⁹, that

¹⁵⁸For a more detailed exposition of this argument, see *Chapter One*, Sec. 5.

¹⁵⁹ DoR 6:312.

is, make no more *use of normative language* at all, the agent is bound to accept the demands of political normativity.¹⁶⁰

However, what is exactly the link between the use of normative language and political normativity? How does political normativity flow from the use of normative language as its source? Different attempts to spell this link out have been proposed.¹⁶¹ One interesting answer that is directly linked to the use of language is proposed by Jürgen Habermas. Drawing on the theory of speech acts to analyse the internal logic of the establishment of claims to validity in practical discourses, he claims to have uncovered a normative fundament that each speaker *as speaker* necessarily subscribes to. It is internal to the use of language. The ideal he thereby reveals can be described—even though this is not his terminology—as the ideal of non-domination as set out above. Arguments about the validity of claims to rightness presuppose that each and every agent ought to have a status in which her voice counts as equal and no one is in a position to impose their views. For only if everyone is of equal standing and can make her voice heard in determining what is right and wrong such claims can be established. Only then no one is subject to the will of another. Democratic structures are the realisation of this basic normativity on a societal level and under the empirical constraints of the real world. The contention is that under the conditions of disagreement references to the concept of right, that is, claims to have a right to perform a specific action can only be substantiated in a public lawful condition.¹⁶² This, in turn, is why political normativity gives rise to the *exeundum* duty. This answer sheds some light on two important aspects of Kantian political theory. Firstly, it explains why the ideal of non-domination is internally linked to democratic political institutions. Secondly, it

¹⁶⁰ This is a rather empirical reading of Kant. A different interpretation would hold that every rational agent that performs an action cannot but hold that she has a right to perform this act, whether or not she explicitly does make such claims, is aware of it or not and so on. The less demanding, empirical reading suffices for my aims here for conflicts about justice are omnipresent in the context of anthropogenic climate change (see *Chapter One*, 5. The Legitimate Use of Force)

¹⁶¹ Jürgen Habermas is probably one of the most famous attempts to develop the Republicanism in Kant's political theory. Building on Habermas' ideas, Rainer Forst develops an interpretation that is also focused on the justificatory praxis (Forst 2007, esp. part I). Developing a different strand in Kant's political theory, Andreas Niederberger's interpretation draws not on the 'interests and projects agents wants to realise' (Niederberger 2009, 170; my translation) to broaden the narrow focus on political freedom for 'human existence cannot be reduced to 'participation in politics'' (Niederberger 2009, 169; my translation) (see Niederberger 2019, esp. Ch. 3). Adapting this more comprehensive perspective raises the interesting question of the status that an interest in legitimate relations has with respect to other, non-political interests.

¹⁶² To be precise. This does not mean that one cannot strongly belief in the adequateness of a specific ToG that is different from what the law demands but it is not meaningful insofar as it is not binding for an agent that does not agree. Therefore—to take up a point from *Chapter One*—that years and years of pondering over rightness or wrongness and thereby developing a sophisticated and well-argued for ToG is—from a Kantian point of view—not only not sufficient but a different exercise from establishing legitimate grounds for enforcing a specific ToG. This is why ethical theory is unimportant when it comes to answering the question of the legitimate use of force. Kantian political theory contends that the legitimacy of the use of force can only be provided by a political system

illuminates the distinctly Kantian claim that enforceable duties can only be brought about through political institutions.

To sum up, political normativity is, according to Kantian political theory, not just another ToG—not just another claim about what is good or bad, right or wrong, just or unjust—because it stems from a different source and defines the only conditions under which we can determine what can legitimately be enforced under the fact of disagreement. We can, thus, say that ethical normativity taps into an agreement over the content about what is right or wrong, whereas political normativity taps into a shared formal aspect of each disagreement, that is, the aspect that distinguishes disagreeing from merely talking past each other. While the establishment of enforceable duties is an expression of political autonomy, ethical normativity stems from personal autonomy.¹⁶³ This allows me to mark an important difference to non-Kantian accounts of republicanism based on a notion of freedom as non-domination. The latest spate of interest in the normative ideal of non-domination was fuelled by the works of Philip Pettit who defends such a non-Kantian account. Even though Kantian and non-Kantian accounts share the normative ideal of a notion of freedom as non-domination, they are, eventually, two quite different strands of thinking when it comes to the justificatory underpinnings of their normative theorising. Pettit’s account and those who follow him are ethical accounts of non-domination in the sense I defined ethical theories at the beginning of *Chapter One*. That is, they understand freedom as non-domination as the proper analysis of a specific kind of good.¹⁶⁴ Their theory of freedom as non-domination is thus a specific ToG, an expression of ethical, not political, normativity. It is the claim that political theory taps into a different kind of normativity that defines the shape of a Kantian notion of domination and that distinguishes it from many other notions of non-domination that are discussed recently.

¹⁶³ The idea of autonomy is probably *the* distinctive feature of Kantian normative theorizing and, according to Habermas, ‘one of the few three or four real innovations in the history of philosophy’ (Habermas 2019, 2; my translation). Autonomy is the claim that the bindingness of norms can only be established via acts of personal or political autonomy but never be imposed externally. This is the systematic reason why an ethical theory solution to the challenge of the legitimate use of force as discussed in *Chapter 1* (see Chapter 1, Sec. 5) is unimportant from a Kantian perspective. *Even if* we were to assume that we had privileged knowledge about what is right or wrong (however this might be possible) this would not bring us any step further to establishing enforceable duties for those who disagree. There is no link between what some believe they can legitimately enforce and what they can legitimately enforce.

¹⁶⁴ For Pettit, see his general argument for republicanism where he explicitly states that it relies on a specific ToG or, in his words, an ‘axiom’ (Pettit 1997, 11f). Another, more recent example is Frank Lovett’s affirmative discussion of ‘The good of non-domination’ in Lovett 2010, 127–35. For the application of such an ethical account of domination to anthropogenic climate change, see Nolt 2011a.

2. Domination and Anthropogenic Climate Change

After introducing the general traits of Kantian political theory and having discussed the hypothetical and somewhat abstract idea of a state of nature as a state of domination, let us begin here by examining a set of more conventional and everyday situations of domination that an agent can find herself in. Despite significant differences in the justificatory structure of Kantian political theory and a Pettitian approach to domination, there is considerable overlap in the way the notion of domination is understood and thus the cases that count as instances of domination. Philip Pettit uses the following examples to approach the political wrong or, as he says, the 'grievance'¹⁶⁵ of domination.

'The grievance I have in mind is that of having to live at the mercy of another, having to live in a manner that leaves you vulnerable to some ill that the other is in a position arbitrarily to impose; [...]. It is the grievance expressed by the wife who finds herself in a position where her husband can beat her at will, and without any possibility of redress; by the employee who dare not raise a complaint against an employer, and who is vulnerable to any of a range of abuses, some petty, some serious, that the employer may choose to perpetrate; by the debtor who has to depend on the grace of the moneylender, or the bank official, for avoiding utter destitution and ruin; and by the welfare dependant who finds that they are vulnerable to the caprice of a counter clerk for whether or not their children will receive meal vouchers.'¹⁶⁶

All these individuals find themselves exposed to the will of another with no means to make their own voice heard. The other person is in a position to decide whether to give their will any weight at all. These are somewhat modern examples of domination. What writers historically had in mind as the paradigm example of domination was the relationship of master to slave or master to servant. The complete subjugation of one will under another will that is the very definition of slavery is the paradigm case to understand the key grievance which the normative ideal of freedom as non-domination aims to overcome.¹⁶⁷

These cases are far removed from the relations between agents that anthropogenic climate change established between various agents. To demonstrate that it can also be applied to anthropogenic climate change, I start by fleshing out a more detailed definition of domination. On this basis, it will then become clear what the further steps are for testing

¹⁶⁵ Pettit 1997, 5.

¹⁶⁶ Pettit 1997, 5.

¹⁶⁷ Pettit 1997, 31.

the applicability of the notion of domination to anthropogenic climate change. Therefore, what are the necessary conditions for agent A to be in a relation of domination with respect to agent B?

The definition I want to propose is at this level of generality not subject to much controversy and some version of it is widely accepted by non-domination scholars of different stripes.¹⁶⁸ According to this definition, agent A stands in a relation of domination to agent B *if and only if* agent A

- (1) is in a position to alter the option-set of agent B (positionality condition)
- (2) in a normatively relevant way (relevance condition) and
- (3) can decide herself and on her own whether or not she uses her position (unilaterality condition).¹⁶⁹

The *positionality condition* points out that for agent A to dominate agent B it is not necessary that agent A actually interferes with agent B. It suffices if agent A is in a position to do so. If an agent is in a position to alter the option-set of another agent then she has a *sustained option* to perform the respective actions whenever she pleases. That is, it is not required that agent A indeed uses this option for a relation of domination to obtain. Likewise, the action available to agent A does not have to interfere with an actual action of agent B. It is enough that it changes the options that are available to agent B. Already the fact that agent A is in a position to perform certain actions does, however, change the options that are available to agent B. The tool of option-sets is a helpful device to spell out the notion that freedom as non-domination is about the *relations* between agents and not about actual interferences. Throughout the following discussion, I nevertheless often speak of ‘agent A interfering with agent B’ and not of ‘the option of agent A to interfere in the option-set of agent B’ when the relational aspect is not the focus of the discussion. This allows me to avoid clunky formulations. What I always mean is, however, the *option* of one agent to interfere in the *option-set* of another agent.

The *relevance condition* picks out those interferences from the set of all interferences that are normatively relevant. From the general discussion of the domination above, we know that those instances of interference are normatively relevant in which the will of

¹⁶⁸ For example, see Pettit 1997, 52.

¹⁶⁹ This account of domination is based on the definition proposed in Niederberger 2009, 194–6.

agent A is predominant over the will of an agent B.¹⁷⁰ The predominance of a will can come in many forms and degrees. A paradigm case of the predominance of agent A's will is embodied in agent A's position to perform actions that *force* agent B into doing something. We shall soon take this kind of predominance as a starting point when trying to understand how to conceive of anthropogenic climate change as a form of domination. The relevance condition also defines a lower level for relevant changes to option sets that is implicit in Kant's claim from the quotation above that only those must be subjected to a public lawful condition that cannot avoid interacting with each other. For it is clear that not every case that alters the option-set of another agent is a case of interaction in a relevant sense. Some changes are too insignificant to classify as the predominance of one will over another. It is crucial to Kantian political theory as opposed to ethical accounts of non-domination that it speaks only of normatively *relevant* and not normatively *problematic* interferences. For what the fact of normatively relevant interferences supports is not the claim that these interferences are wrong but the claim that we need to establish political institutions through which the relevant agents can determine whether a specific action is right or wrong. Normative relevance is, thus, a step prior to determining the normative status of an action.

Another aspect that is important to note is that the criterion of normative relevance does not imply any claim about the intentional state of agent A. One might argue that for a relation of domination to be realised, agent A must impose its will on agent B and, thus, intend to do so, or, at least, that she must be aware of the fact that her actions may have possible side effects that amount to such predominance. While this might be true for ethical normativity to gain traction, this is not the case for political normativity. To determine the reason for this, one must remember that political normativity supports the ascription of the single duty to leave the state of nature, that is, a state of domination. It also claims that this duty is *enforceable*. If a duty is enforceable then the state of mind of the agents is, however, neither here nor there. For whatever reason the agents of a state of nature fail to live up to their duty—whether they do so because they intentionally refuse to do so or whether they are just oblivious of their duty—the mere fact that they are part of

¹⁷⁰ This is one important respect where republican accounts of freedom differ from liberal theories. Interferences, in general, are normatively problematic, neither are the interferences as such, but rather a quality that every interference can display or not display is the issue. The question of whether the interference is in alignment with rules that have democratically been established by the relevant agents determines the normative relevance of

relations of domination between agents suffices for political normativity to become operative. Political normativity only needs the 'mind-independent' fact of agential circumstances in which the will of some is prevalent over the will of others to mark a situation as normatively deficient.¹⁷¹

It is *the unilaterality condition* that marks the difference between a state of nature and the public lawful condition. The two previous conditions describe features of agential circumstances that cannot be overcome *as such*. Some agents will always be in a position to avail themselves of means that allow them to impose their will on others. Often this fact is the simple result of natural differences between the real-world agents. Some are stronger than others are and can, therefore, make their will prevail whenever they want to. The public lawful condition cannot make away with those empirical differences. What it can do, however, is to change the *access* of those agents to their options to impose their will. This is what the third condition implies. To avoid confusion, the first part of the condition states a truth that holds for all agents: An agent is defined by her ability to act freely and, thus, *decide herself* whether she wants to perform a specific action. The second part then marks the difference between a state of nature and a public lawful condition. In a state of nature, the agent can, in addition, *decide on her own* whether or not she realises this option, while in a public lawful condition, all agents in tandem decide via democratic institutions whether a specific action can be realised. In a public lawful condition, an agent does, consequently, *not* decide on her own whether she can make use of an option that would be open to her in a state of nature. The law changes the access to certain options by backing it up with the threat of punishment.¹⁷² The public lawful condition in which agents decide themselves but not on their own can be said to be defined by multilaterality as

¹⁷¹ In line with the ethical account of non-domination, Philip Pettit claims that intentionality is a necessary criterion for domination. The 'interference [...] always has to be more or less intentional' (Pettit 1997, 52). He refers to the structure of an ethical wrong of an agent bringing about some kind of bad, while the political account I propose here is not interested in an assessment of individual acts and the intentional state of these but in 'states' that are defined by the options that are available to agents irrespective of the agents 'inner life'. These states can be observed from outwards and, at least in principle, legitimately enforced by someone external. Therefore, if lady justice were to ascend to earth her job would be the enforcement of the single duty to leave the state of nature by subjecting all agents that cannot but interfere in a normatively relevant way with each other to a public lawful condition thereby bringing about a state of freedom and peace.

¹⁷² Let me briefly clarify the role of the rule of law by drawing on a helpful example by Andreas Niederberger. As Niederberger points out, we cannot expect the rule of law to abolish violations of the law entirely. This is beyond the reach of even the most draconic police state. What we can and should expect from the rule of law is, however, that no agent can violate the law *on her own* in the above-introduced sense. The law must aim to put the stakes for doing so too high. Someone agent may still *decide herself* that, for whatever motive, she will break the law but she then did *not* *decide on her own* to do so. See Niederberger 2009, 195.

opposed to the unilaterality of agents deciding themselves and on their own as it is characteristic for the state of nature, the state of domination.

It follows from this definition that domination is not a symmetrical relation. One agent dominates other is dominated. If agent A dominates agent B then agent B cannot dominate agent A at the same time and in the same respect. Consequently, every relation of domination can be split into three basic elements. The relation of domination itself that is defined by the three conditions set out before and the two relata of this relation—the dominating party and the dominated party.

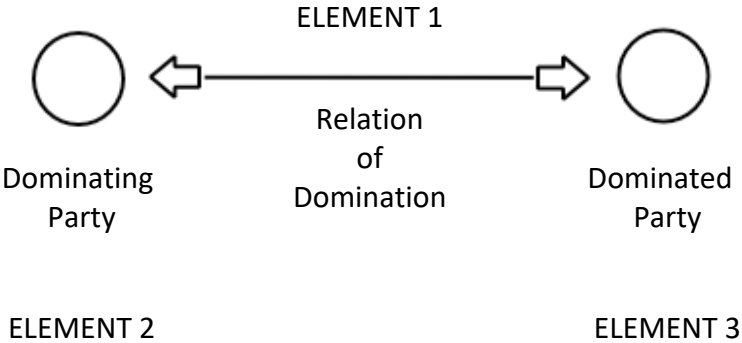


Figure 3. The three basic elements of the notion of domination

Above I introduced some of the standard cases in the (neo-)republican literature that the relation of domination is meant to capture. We said that the various forms and degrees of domination that characterise these cases are crystallised in the relation of master to slave and that is why the difference between freedom and unfreedom is often portrayed in these terms. And this makes good sense. This relation is indeed the paradigm of the many embodiments of unfreedom that republican thinking was historically confronted with and geared to overcome. An agent A (ELEMENT 2) was in a position to make its will predominant (ELEMENT 1) over the will of another agent B (ELEMENT 3). Let us call this a case of *individual* domination.¹⁷³

¹⁷³ Philip Pettit also mentions cases of domination such as the relation of the American colonies to the British Empire (Pettit 1997, 33–35) that seem ill described if called *individual* domination. They are not in the same straightforward sense individual relations as the relationship between a master and a slave are. They are, nevertheless, also not cases of collective domination in the sense I want to develop in the following and I argue that anthropogenic climate change is. Anthropogenic climate change is a form of collective domination irrespective of the institutions involved. The same cannot be said of the cases of the American colonies. No single colonial master as such stands in a relation to the colonised Americans. The difference should become clearer as the book proceeds.

It suggests itself that anthropogenic climate change is not merely another case that can simply be added to the list of the more traditional cases of domination. Anthropogenic climate change is markedly different from the cases republicans traditionally had in mind when thinking of domination. This is not just a superficial difference. To the contrary. Anthropogenic climate change is the paradigm example of a significant change in the circumstances of action. For most of their history, human beings lived isolated from each other with hardly any possibility of affecting one another through their actions in a normatively relevant way. This was definitely true for those living on the opposite side of planet Earth. This started to change radically not too long ago. Not only are our economies now tightly interwoven through processes of globalisation but the most everyday actions of each individual agent have the real potential to affect the life of someone living on the other side of the globe—someone she will very likely never meet—by contributing to unprecedented and until recently unthinkable climatic changes. While the traditional cases concern instances of domination that occur between clearly identifiable agents located in a limited segment of time and space, anthropogenic climate change is defined by incomparably more complex and intractably intertwined causal chains between countless agents that stretch over centuries and even millennia. This fact of unprecedented human power in shaping the planet has been acknowledged by many scientists recently culminating in a proposal for proclaiming a new age of the Earth. The age of man or the Anthropocene.¹⁷⁴

Many philosophers observing these changes concluded that the changed circumstances of action each agent now finds herself in have important consequences for our normative theorising. That is, we must update and modify our normative theories so that they can speak to these new circumstances of action.¹⁷⁵ I do share this view. The aim of this and the next chapter is to develop the building blocks of a Kantian political theory of non-domination that can account for these changes. Developing such an updated theory will allow us to cover forms of domination that were previously unintelligible. Anthropogenic climate change is one such case. Doing so is thus part of the ever-ongoing process of learning and adapting our theories that mirrors the ever-ongoing process of change in the human condition. I argue that anthropogenic climate change is one such new phenomenon,

¹⁷⁴ For a statement from the scientist Paul Crutzen and others who famously argue that we have already entered the Anthropocene, see Crutzen et al. 2011. For an appropriation of this debate by political and normative theorists see, for example, Biermann/Lövbrand 2019. See also *Introduction*, 9.

¹⁷⁵ A famous and by now classical discussion of the consequences these changes yield for consequentialist theorizing can be found in Parfit 1984, Chap. 3.

one such new kind of wrong that propels us to further develop our analysis of domination. In so doing it allows us to gain new insights into the concept of freedom.¹⁷⁶

I contend that all three basic elements of the concept of domination need modification. Firstly, we must clarify what a normative relevant way of changing the options of an agent in the context of anthropogenic climate change looks like and, thus, how to think of it as a relation of domination (ELEMENT 1). Secondly, we must clarify who the dominating party is, for it is unconvincing to believe, as in the case of individual domination, that each agent stands in relation of domination to each other individual agent for no individual agent can bring about anthropogenic climate change alone (ELEMENT 2). Thirdly, we must clarify who the dominated party is (ELEMENT 3). This seems not so difficult with respect to contemporaries. It becomes more complex with respect to future generations, as the notorious problem of non-identity arises. In this thesis, I address the problem of future generations only briefly in the conclusion. It is the task of further research to provide an elaborated answer for this element.

The sum of changes that we must undertake to update the Kantian political theory of non-domination leads to the main thesis of this book.

Main Thesis
Anthropogenic climate change is a form of <i>collective domination</i> .

Table 7. The main thesis of the dissertation

The main thesis claims that the current generation *as a collective* stands in a relation of domination to contemporaries and to future generations. It is not a form of domination that holds between individual agents. At least on the side of the dominating party.

The aim of establishing the main thesis defines the task that lies before us. The remainder of this chapter focuses on the relation of domination (ELEMENT 1) and demonstrates how anthropogenic climate change can be understood as such a relation. The next

¹⁷⁶ Philipp Schink presents an interesting reconstruction of the modern discussion on different notions of freedom—most famously coined by Isaiah Berlin as ‘positive freedom’ and ‘negative freedom’ (see Berlin 1958). In his view, the process of learning and exploring steers towards a *relational* notion of freedom that is very similar to the notion of freedom as non-domination I present at the beginning of this chapter (Schink 2017, 7-68, esp. 64-8) In this argumentative line, anthropogenic climate change would be another historical phenomenon that leads to a better understanding of the notion of freedom (Bohman 2015, 86).

chapter then aims to show why we must conceptualise the dominating party (ELEMENT 2) as a collective in a substantial sense.

3. Two Accounts of Force and the Paradox of Involuntariness

For anthropogenic climate change to be conceivable as a relation of domination, the three conditions set out above—the positionality condition, the relevance condition and the unilaterality condition—must be satisfied. Clearly, anthropogenic climate change meets the positionality and the unilaterality condition. On the one hand, the process of industrialisation has positioned us to change the Earth’s climate via the introduction of massive amounts of greenhouse gases into the atmosphere. It is important to note that the option to do so has indeed been present for a long time, and still primarily lies in the hands of the industrialised countries and their citizens. On the other hand, given the lack of international institutions that could effectively regulate the emission of greenhouse gases, states still can decide on their own, or unilaterally, whether they aim to reduce their greenhouse gas emissions—without anyone else, including the most affected parties, having a say in this.¹⁷⁷

With respect to the relevance condition, a straightforward answer is not readily available. The question arises of whether it is possible to analyse the relations established via the possibility of anthropogenic climate changes as a kind of predominance of the will of some over others. One might think that applying the notion of force—the paradigm example of will imposition—to it is tantamount to a hyperextension of the notion of force that is born from some theoretical need rather than from real insight into the mechanics of the agential relations at hand. The obvious difficulty is that when we think of force we think of *physical* constraint applied to the body, or at least close relationships as those in the traditional examples. Nonetheless, a well-established branch of research in the social sciences under the label of forced migration studies appears to claim this. This mainly

¹⁷⁷ This situation was institutionalised in the Paris Agreement, which has been celebrated by many as a step forward compared to the rigid terms of the Kyoto-Protocol. Things look different from the perspective of a Kantian non-domination theory. While the Kyoto-Protocol was at least giving rise to the hope of establishing binding rules and thereby of taking the option for some of changing the climate for all, the Paris agreement institutionalises this option by allowing each state to decide on its own whether and how much to contribute to the overall aim of cutting global greenhouse gas emissions. So far, as it seems, with little success: Recent numbers show that only a few are willing to reduce their emissions and the combined effort is far from achieving the collectively set aim of limiting global warming to 2°C above pre-industrial level (UNEP 2018, XIV). Furthermore, the US are currently in the formal process of leaving the Paris Agreement (see <https://www.state.gov/on-the-u-s-withdrawal-from-the-paris-agreement/>, last access: 1 January 2020). Of course, a question of feasibility must be answered, but this is not the same as losing out of sight what we should actually aim for.

empirical branch of research is based on the assumption that (anthropogenic)¹⁷⁸ climatic changes—and environmental changes more broadly—can indeed be the reason for forced displacements. From its inception in the early 1980s, the debate has revolved around questions of how to define climate or environmental displaced persons on the one hand, and questions regarding the extent to which we can already observe this kind of displacement in the present, and the extent to which we will encounter this kind of forced migration in the future.¹⁷⁹ After alarming numbers in the late 1990s and early 2000s that predicted up to 150 to 200 million climate refugees in year of 2050¹⁸⁰, recent research has induced more scepticism about the actual numbers. The adduced reasons concern definitional matters as to what counts as climate or environmentally displaced persons, a lack of data especially from those areas where climate-vulnerable people are assumed to live and insufficient concern for possible adaptation measures which may help to mitigate the effects of the climatic changes.¹⁸¹ The main reason, however, is that empirical data has been suggesting very strongly that various different factors play a role in displacements.¹⁸² This led to the notion of mixed migration as opposed to an analysis of migration that suggests a single cause such as climate changes. Over recent years, interest in the phenomenon has reached new heights. This time, however, researchers are rather reticent to provide numbers because of the reasons just enumerated.¹⁸³ Nevertheless, the phenomenon is also increasingly recognised within the international arena. In 2018, a majority of the UN General

¹⁷⁸ This qualification adds another level of complexity as it requires an entirely different set of data to show that a specific change in the climate or a single natural event, such as a flooding, is connected to anthropogenic activities. There has been made huge progress on this question recently and the so-called science of ‘extreme event attribution’ is now capable of linking certain weather events to human-induced climatic changes. The American Meteorological Association writes in the introduction to its annual report ‘Explaining Extreme events of 2016. From A Climate Perspective’ published as a special supplement to its bulletin that ‘[t]his sixth edition of explaining extreme events of the previous year (2016) from a climate perspective is the first of these reports to find that some extreme events were not possible in a preindustrial climate’ (Christidis et al. 2018, ii).

¹⁷⁹ Gesing et al. 2014, 5. For a more details, see, Gesing et al. 2013, 5.

¹⁸⁰ These estimates, produced by Norman Myers (see Myers/Kent 1995), have become—as Dina Ionesco, Daria Mokhnacheva and François Gemenne observe—a ‘magical number’ (Gemenne et al. 2017, 34f; my translation) that is often cited by the public and various interest groups, and sometimes even by the UN as an official number (see Gemenne et al. 2017, 34f).

¹⁸¹ For the different points of critique and more literature, see Kreienbrink/Tangermann 2019.

¹⁸² Adger et al. 2011; Gesing et al. 2014, 5f.

¹⁸³ An interesting alternative to providing absolute numbers of climate migrants is proposed by Benoit Mayer (Mayer 2016). He suggests that we should try to determine statistical values as to how much more likely climate migration from a specific area is due to climate and environmental changes. This idea aptly links to my suggestion in *Chapter One* that we should frame anthropogenic climate change as a risk. For we could then say that anthropogenic climate changes change the options of agents insofar as they link them with a certain risk of being displaced. In addition, being in a position to bring about such changes may count as a form of domination. Taking into account risks is another may be aspect of how we must modify our concept of domination in the Anthropocene, one I cannot further pursue here.

Assembly adopted a document stating that ‘climate, environmental degradation and natural disasters increasingly interact with the drivers of refugee movements’¹⁸⁴.

I do not want to and cannot decide on the empirical issues raised by the notion of forced climate displacements. Answering this question falls squarely within the area of social sciences. From a philosophical perspective, especially for the perspective of Kantian political theory, the extensive use of the concept of *force* in the climate-displacement context is especially interesting. We apparently have good reason to believe that trying to understand climate change in terms of domination is anchored in a considerable body of growing literature in the social sciences. If we were to make sense of this use of force, we could indeed demonstrate that also the relevance condition is fulfilled. So far, limited research addresses the links between normative theorising and forced migration studies.¹⁸⁵ In addition, the conceptual level has attracted only scant attention. To be sure, most forced migration scholars did offer some type of taxonomy on how they understand the notion of force, however, only as part of the preliminaries to their proper research interests.¹⁸⁶ Given their focus on empirical questions, they have never investigated the conceptual issue of how to analyse the notion of force in the context of anthropogenic climate and environmental changes more broadly. Recently, some forced migration scholars started to express concern about the loose and underdefined use of key notions, such as force, and related concepts, such as voluntariness, especially given the crucial role that these notions have in supporting important descriptive and normative conclusions.¹⁸⁷ Since then, the first manifestations of a debate on the notion of force, its core meaning and its difference to other, related concepts, have sprung up within forced migration scholarship.¹⁸⁸ In what follows I want to engage with this literature and bring it into conversation with the philosophical scholarship on this topic. A conversation that so far has only been taking up occasionally. Doing so will allow me to develop a notion of force that is in line with the framework of a Kantian non-domination approach. It provides us with the theoretical devices we need to update the understanding of the relation of domination (ELEMENT 1) as it is part and parcel of Kantian political theory for the new circumstances of action characteristic of the Anthropocene.

¹⁸⁴ UN 2018, Par. 8.

¹⁸⁵ Gesing et al. 2014, 6.

¹⁸⁶ Richmond 1994, 55–61; Van Hear 1998, 40–54.

¹⁸⁷ Ottonelli/Torressi 2013, 785,

¹⁸⁸ Bartram 2015, Erdal/Oeppen 2018.

Before reaching into the rather abstract heights of the conceptual debate on force, I briefly introduce a working example of a climate displacement case in which we can assume, for the sake of argument, that we knew for certain what many think is at least very likely; namely, that anthropogenic climate change plays a decisive role—even though not the only reason¹⁸⁹—in forcing those people to migrate. This example will function as a kind of ‘control case’ to assess the plausibility of different proposals to analyse the conceptual mechanics of the notion of force. The example I want to use is the real-world case of the inhabitants of the Mekong Delta.

Mekong Delta For quite some time, life for the Van Lung family has become more and more challenging. For generations, it had been living in the Mekong Delta, which used to be an area of arable land that provided them with a secure income. Things have changed, however. Due to the influx of salty seawater, the land has become less and less fertile. In addition, the rising water level has steadily been eating away the shore, threatening their home, which is closely built to the river. Their neighbours already had to leave their home and migrated to Hanoi for it was no longer safe to live there. A few days ago, their house eventually gave in and fell into the river. The house of the Van Lung family is the next in line and they see no other choice but to leave the area in order to be able to live a safe life and support their livelihoods.¹⁹⁰

Vietnam is one of the most climate-vulnerable regions in the world. It is well known that anthropogenic climate change is the reason behind the rapidly increasing water level of the Mekong River. It is also the key driver behind the salination of the neighbouring land. Many other cases of low-lying regions can be added to the example of the Mekong delta. The most attention so far is probably on the case of the Tuvaluans—the inhabitants of the island of Kiribati—who are already experiencing significant land loss due to rising sea levels and who face the prospect of their islands being completely submerged due to climate

¹⁸⁹ I believe that in the Anthropocene, we must become used to building our theories on less clear-cut empirical research—if this was ever different. A good theoretical device to deal with the alleged multicausality is again the notion of risk (see also Fn. 183). However, imposing a risk of being forced to migrate—given that other causally effective conditions are very likely to obtain—can still amount to a *normatively relevant* change of option-sets and, thus, constitute a relation of domination.

¹⁹⁰ This example is taken from the BBC documentary ‘The Displaced: Climate change in Vietnam destroying ‘the family life’’. It documents conversations with peasants that live or have been living in the Mekong Delta. It cites official numbers according to which in 2018 ‘more than 35.000 people [living in the Mekong Delta] were forced to flee their homes every day.’ That is one every two seconds. See <https://www.bbc.com/news/av/world-asia-49854753/the-displaced-climate-change-in-vietnam-destroying-family-life> (last access: 26 December 2019).

change-induced sea-level rise in the near-term future.¹⁹¹ Other examples include the inhabitants of the Gangetic Plain in Bangladesh and vast swaths of its coastline as well as those of the Nile Delta.¹⁹² Many other examples could be added and will certainly become more and more in the near- and long-term future. I take it that all these cases we would not reject the claim of the inhabitants of these low-lying areas that they were indeed *forced* to leave their homes.

With these examples at hand, let us turn now to the question of how to conceptualise force in order to make sense of the use of the notion of ‘force’ in the context of anthropogenic climate change. Any analysis of a concept can roughly be divided into two separate tasks. The first task consists in determining the *meaning* of a concept. That is, we must provide a brief outline or paraphrase of what we want to say when claiming that someone was forced to migrate. This is the first dimension in which analyses of the concept of force can differ. The second and subsequent task consists in determining on this basis instances to which the concept of force applies. That is, provided a certain analysis of the meaning of the notion of force, we must clarify what conditions a situation must satisfy so that it is adequate to say of an agent that she is forced into doing something. In some cases, this answer flows readily from the answer to the first task, in other cases answering the second task is more difficult. It is common to describe the first task as the task of determining the *intension* of a concept and the second task as the task of determining the *extension* of a concept.¹⁹³ In what follows, I want to introduce two different analyses of the concept of force by focusing on the two dimensions just set out that define a conceptual analysis.

The first analysis of the notion of force I want to introduce is the dominant analysis in the recent conceptual debate within forced migration studies. I call it the ‘no alternative account’ (NOA) of force.¹⁹⁴ NOA is a fairly straightforward way of making sense of the use that is made of the notion of force in the context of forced displacement. The core of the analysis is the contention that agent A is forced into doing action P *means* that in a given

¹⁹¹ Carol Farbotko critically examines the role ‘sinking islands’ play in the imagination of Western environmentalists and Western societies more broadly (Farbotko 2010). She criticises that while serving as colourful and exotic example of the impacts of anthropogenic climate change, those affected remain silent and distant in those depictions just as they only have ‘little voice in international climate debate at all’ (Farbotko 2010, 50).

¹⁹² Skillington 2015, 5.

¹⁹³ See Fittich 2015, 2–4.

¹⁹⁴ An important source for the forced migration scholars developing this account is Serena Olsaretti’s work. See especially Olsaretti 1998. Among those drawing on her general account of force are Ottonelli/Torressi 2013, Bartram 2015 and Erdal/Oeppen 2018.

situation agent A has *no alternative* to performing action P. Take the Mekong Delta example. To say that the Van Lung family is forced to leave the Mekong Delta is, thus, meant to say that they have no alternative to leaving. Indeed, this paraphrase seems to capture adequately what we want to say when we say that the Van Lung family is forced into leaving. We do have to be more precise, though. Is it true that they have no alternative? In a rather obvious sense this is not true. They do have an alternative, in other words, the alternative of staying. While this is, in a trivial sense true, it is not a good objection to the analysis of the meaning of force just provided. What we wanted to say is not that they do not have any other alternative but that they have *no acceptable* alternative to leaving. More precisely then, we ought to say that the family was forced to leave because no acceptable alternative is open to them. This, then, is indeed the answer NOA gives to the question regarding the intension of the notion of force.

	Option-Set X (Free choice)	Option-Set Y (Forced choice)
Option 1 (Stay)	acceptable	not acceptable
Option 2 (Leave)	acceptable	acceptable

Table 8. Extension of the notion of ‘force’ according to NOA

On this basis it is not difficult to give an answer to the second question of how to identify those cases in which this notion of force is instantiated. Assume two situations in each of which an agent A is confronted with the option of either to stay or not to stay, that is, to leave. I call the range of options available to agent A an option-set. Option-sets are exhaustive representations of the range of options that are available to an agent in a certain respect.¹⁹⁵ The relevant respect in our case is the question of staying and leaving. The two

¹⁹⁵ In choice theory the terms ‘menu’ for option-set and ‘items’ of this menu for options are used. A menu is defined as ‘a list of items from which choice must be made, set out in such a way that something must be chosen’ (Allingham 2002, 116). If an option-set fulfils this requirement I call it an exhaustive option-set. One might wonder whether an exhaustive option-set adequately represents the options an agent has. Are there not many more options if we consider all the follow-up decisions an agent has to make when she decides, for example, to leave? Such as where to go to and how, what to take and what to leave behind and so on? Taking the different options that arise into account would indeed give us an options-set that is much richer with options. To clarify the notion of force, the options we are interested in is, however,

option-sets I want to consider differ only with respect to the eligibility of the two available options. In option-set X both options are acceptable, while in option-set Y only one of the two options is acceptable. The other option is unacceptable.¹⁹⁶ All the cases in which agents are confronted with an option-set of the type of option-set Y instantiate cases of force. This is the situation the family living in the Mekong Delta finds itself in due to the consequences of anthropogenic climate change. The only acceptable option is to leave (option 2). No one can be expected to put their own life and the life of their family deliberately at risk. Staying (option 1) is not acceptable. Option-set X to the contrary instantiates a free choice. We can assume that this was the situation the family living in the Mekong Delta was in before the consequences of anthropogenic climate change were materialising in their region.

At this point, another important question emerges for those subscribing to NOA. What does it exactly mean that an option is acceptable or not acceptable? This question is indeed more difficult to answer. There are two different ways to make sense of this further qualification. They broadly fall into the categories of moralised and non-moralised accounts. Moralised accounts hold that the baseline against which we must measure the acceptability of an option is a certain normative standard. One such standard would be a human rights approach. According to this rendering an agent is forced to migrate if the only other option she has would lead to a violation of her human rights.¹⁹⁷ Non-moralised accounts argue that the baseline to measure the acceptability of an option is not to be cashed out in moral terms.¹⁹⁸ We do not have examine the details here, however. The analysis I want to propose differs significantly from NOA already on the more general level of analysis. That is, the way it determines the intension and the extension of the notion of force. Before I can assess the plausibility of both accounts of force at the end of this chapter, I must introduce the alternative account I want to propose.

are only the choice between staying and leaving. We can think of all the follow-up choices to be implicitly summed up in the single choices of staying and of leaving.

¹⁹⁶ We cannot refer only to relative choices—that is, the fact that agent A prefers, for example, option 1 over option 2—because only if we distinguish between options with a positive and a negative value we can make sense of important distinctions. One such distinction that attracted a considerable amount of scholarship is the one between offers (of something very valuable to the agent) and threats (of something with a great disvalue to the agent). The discussion was started by Nozick's article on coercion (Nozick 1969); for an overview, see Anderson 2015.

¹⁹⁷ David Bartram, for example, argues for a human rights view within the forced migration debate: 'The innovation here is to suggest that migration can be 'forced' via one's rejection of local subsistence options that amounts to violations of human rights. [...] and the key point here is that this point of evaluation is properly applied in economic terms no less than in political terms' (Bartram 2015, 439f). One of most visible proponent of a moralised baseline within the philosophical debate is Alan Wertheimer. For a recent defence of his position, see Wertheimer 2012.

¹⁹⁸ One major proponent of such a view is Serena Olsaretti (see Olsaretti 1998).

I call the analysis I want to defend the ‘involuntariness account’ (INA) of force. The core of this analysis of the notion of force is the contention that when we say that an agent A was forced into doing action P we mean that she did action P *against her will or involuntarily*. However, what does it mean that an agent acted involuntarily? I contend that for an action P to be performed involuntarily agent A must fulfil the following conditions. Agent A must perform action P at the same time

- (1) willingly and
- (2) unwillingly.

On the one hand, it is clear that agent A must will the performance of action P. For if agent A did not then we could not say that she performed an action at all. For performing an action necessarily presupposes that the agent wanted to perform it for conceptual reasons. We did, however, assume from the outset that agent A performs an action, that is, action P. On the other hand, it is equally clear that—if agent A was forced to perform action P—then there is also a sense in which she does not will the performance of action P. Therefore, she performs the action involuntarily and not voluntarily. She does perform action P against her will. This analysis of force is puzzling as the two claims seem to be outright paradoxical. It seems that an agent can either will an action or not will an action, but not both at the same time. Such a structure of the will seems impossible. I call this result of the analysis of the intension of notion of force according to INA the Paradox of Involuntariness (PIN).

I do think that it is for this air of paradox that the analysis of force as acting involuntarily does not figure famously neither among forced migration scholars nor among philosophers.¹⁹⁹ I do also think, however, that this conclusion is too hasty. Notwithstanding the difficulty of this understanding of force, it is part of our everyday descriptions of situations in which agents can find themselves. Take the following example from a dictionary for the entry of ‘involuntary’.

‘Many nurses said they needed to work overtime, sometimes involuntarily.’²⁰⁰

¹⁹⁹ Another reason is that it is often not clearly distinguished from a different meaning of involuntary as ‘unintentional’ or ‘without the agent wanting’. It is this meaning when we say that ‘Arthur shivered involuntarily as he came out of the building’ (Example taken from the Cambridge Online Dictionary: <https://dictionary.cambridge.org/de/worterbuch/englisch/involuntarily>, last access: 26 December 2019).

²⁰⁰ This example is taken from the Cambridge online dictionary for the entry ‘involuntarily’, see <https://dictionary.cambridge.org/de/worterbuch/englisch/involuntarily> (last access: 1 January 2020).

As in the abstract formulation before we can again find both sides of the paradox here. On the one hand, it is said that the nurses do in fact work more than their work contract asks them to. Moreover, they do so willingly in the sense that they perform the necessary actions. On the other hand, they do so only because of what we can stipulate is a shortage of contracted manpower and they would prefer not having to do so. That is, they work overtime only unwillingly. Many more examples could be added. In addition to specific examples there is also a common expression that captures precisely the paradoxical structure of will that defines INA. That is, we are used to saying that someone did something ‘willy-nilly’. Just as the old-fashioned Latin phrase of *no lens volens*, this expression is meant to say that someone did something willingly (willy, *volens*) and unwillingly (nilly, *no lens*) at the same time.²⁰¹ This expression explicitly captures the paradoxical nature of involuntary actions. I do something and I do it willingly, however, at the same time *against my will*. This is the PIN.

The idea of force as involuntariness is, thus, indeed a deeply engrained view. Notwithstanding its paradoxical air, we do hold that agents are forced into doing something in the sense that they act involuntarily or do something willy-nilly. This is the analysis INA provides of the intension of the notion of force. We now must turn to the question of determining what conditions an agent must fulfil to display this kind of structure of will. The question of the extension of this analysis of the meaning of force. Is there a way to solve the PIN? That is, is there some way to conceive of an agent as displaying this structure of the will? I argue there is.

4. Coercion and the Non-physical Mechanism

To make sense of the notion of force as involuntariness I want to examine a contribution to the debate on coercion by Robert Nozick from 1969.²⁰² Until relatively recently, the notion of coercion has not been a topic of much debate in philosophical circles even though it was an important part of many theories especially in political philosophy. The notion of coercion was considered to be rather straightforward and basic and, thus, not in need of

²⁰¹ ‘Willy’ is derived from ‘will’, which is a formal form of ‘want’ with the additional adverbial ending. By the same token and as the similarities already suggest, ‘nilly’ is derived from ‘nill’ which is the archaic form of ‘not willing’. See Merriam Webster Collegiate Dictionary: <https://www.merriam-webster.com/dictionary/willy-nilly> (last access: 2 January 2020) with an additional adverbial ending.

²⁰² Nozick 1969.

much explanation.²⁰³ It was Nozick's contribution that provided the groundwork for a conceptual analysis of the notion of coercion, which uncovered many of the difficulties that surround this notion and sparked a new spate of articles that aimed to solve them.²⁰⁴ The ensuing debate focused on the same question that much of the conceptual debate on force within forced migration scholarship focuses on, that is, the question of a moralised or non-moralised baseline. This is also one of the crucial questions that Nozick discusses at length in his article. I will, however, focus on another, neglected part of Nozick's contribution that has not attracted much attention so far. I argue that it contains key elements for developing a solution to the PIN.

That Nozick's discussion of the notion of coercion is a promising place to look at is supported by two reasons. Firstly, the notion of coercion is closely linked to the notion of force. Indeed, they are often used interchangeably. Therefore, it suggests itself that analysing the one might help to shed some light on the other notion. Indeed, one by-product of the following discussion is a proposal of how to analyse the two notions and how they are related. Secondly and more importantly, the notion of coercion that Nozick develops is a non-physical notion of coercion—one that *excludes* physical constraint or interference as a possible means of coercion²⁰⁵ but 'operates through the will'²⁰⁶ instead. Therefore, Nozick's account of coercion matches nicely the overarching aim of this section, that is, to provide a notion of force that is applicable to the indirect and mediated relations that are characteristic of anthropogenic climate change. However, how can someone be coerced or forced into doing something without using physical means? To see this, let us examine Nozick's discussion of the definition of coercion. This will then allow us to identify the non-physical mechanism that is at play in non-physical cases of coercion.

²⁰³ Scott Anderson observes to this effect that 'historically, many seem to have been willing to accept the concept of coercion as a primitive' (Anderson 2015, 1). For this reason it is 'sometimes difficult to determine what precise meaning earlier writers intended in their discussions of 'coercion'' (Anderson 2015, 3). The recent interest in the proper analysis of this concept originated in the 1970s and more broadly 'may have been sparked by social unrest (including efforts to suppress it) and the success of some mass non-violent resistance movements' (Anderson 2015, 1).

²⁰⁴ The ensuing debate focused on the same question that much of the forced migration debate focuses on, that is, the question of a moralised or non-moralised baseline. Nozick also discusses this question at length in his article at length; I will, however, focus on another, neglected part of Nozick's contribution. It will later become clear—when I explain an important difference between Nozick's account and my account—why the question of moralised/non-moralised is not interesting from the perspective of a Kantian non-domination theory.

²⁰⁵ Anderson 2015, 16.

²⁰⁶ Anderson 2015, 16.

To better understand the analysis of coercion Nozick puts forward it is helpful to have a clear example of non-physical coercion at hand. Such an example of coercion is provided by the following case:

Your Money or Your Life Agent A hides in a dark corner of a deserted street. When little later agent B hurries along the street agent A suddenly jumps into agent B's way, pulls out a gun and shouts aggressively: 'Your money or your life'. Agent B hands over her money to agent A who runs away and disappears. Later, at the police station, agent B claims that she was coerced by agent A into giving her the money.

I assume that no one will object to agent B's claim that she was coerced by agent A into handing over the money while—most importantly for us to note—there was no physical constraint at play. Agent A and B did not touch each other. So how was agent B coerced into giving agent A the money according to Nozick? Let us examine Nozick's definition of coercion to see how he answers this question. At the outset of his article Nozick proposes a set of necessary and sufficient conditions that must be met for an agent to be coerced into doing something. Nozick claims that agent A coerces agent B into doing act P—that is, handing over the money—if and only if

- '(1) agent A threatens to do something if agent B does not P (and agent B knows she's making this threat). [speech act condition]
- (2) This threat renders agent B's not doing P substantially less eligible as a course of conduct than doing P. [eligibility condition]
- (3) Agent A makes this threat in order to get agent B to do P, intending that agent B realises she's been threatened by agent A. [intentionality condition]
- (4) Agent B does do P. [success condition]
- (5) Agent A's words or deeds are part of agent B's reason for doing P'.²⁰⁷ [causal link condition]

The five conditions are only meant to provide a starting point for Nozick's discussion of coercion. He then problematises various aspects of it and proposes modifications of the

²⁰⁷ Nozick 1969, 441. To avoid unnecessary confusion, I substitute in this and the following quotations the variables Nozick uses for each agent as well as the relevant action in the original for the variables I am using throughout the book. I also substituted 'doing P'/'doing action P' for 'not doing P'/'not doing action P' as this formulation matches more straightforwardly with the 'your money or your life' example. The relevant aspects of the quotation are not affected by these substitutions.

initial definition. We do not have to go into detail as the modifications speak to difficulties we do not have to raise here. For our discussion it is the second condition—the eligibility condition—that is most interesting. It is this condition where Nozick gives an indication as to which kind of non-physical mechanism he thinks is at play when someone is coerced into doing something without physical interference but via threats. So, let us have a closer look at this condition. We will return to the other conditions later when discussing the conceptual relation of force and coercion.

So, what is the non-physical mechanism Nozick proposes as an explanation for why agent A was indeed coerced by agent B into giving her the money? The first aspect to springs in the eye is the fact that instead of a direct physical interference what we find is a speech act. Agent B threatens agent A to do something if she fails to perform action P. Even though a first step in the right direction, this observation alone does not yet provide us with the non-physical mechanism we are interested in. What we want to know is what substitutes in the case of non-physical coercion the direct physical constraint that is applied to the body that is exerted in more straightforward cases of coercion. To wit, when an agent is taken into custody against her will by the police. To see this, we must take a closer look at another aspect of the second condition. We can then note that what seems to play the constraining role according to Nozick is the fact that doing P is rendered '*less eligible*'²⁰⁸ for agent B by the threat of agent A. However, what does this exactly mean? In the discussion of his definition of the notion of coercion Nozick does not dwell on this idea. His focus is on the other conditions. Therefore, it is up to us to develop a better understanding of the non-physical mechanism that is operative here. I propose that we can make sense of this idea in terms of the option-set of agent B and the changes the threat of agent A induces in agent B's option-set. To track these changes in detail, let us consider the options that are available to agent A before the threat and after the threat. I call the first situation pre-situation, the latter post-situation.²⁰⁹

²⁰⁸ Nozick 1969, 441; my emphasis.

²⁰⁹ See also Nozick 1969, 460. When proposing the first step of an argument for the claim that offers are not threats Nozick proposes a similar distinction between a pre- and a post-situation. This distinction is crucial to understanding the difference between offers and threats because it is only by an exclusive focus on the post-situation that some can argue that offers are coercive just as threats. It is only a first step in a larger argument because the claim that offers and threats are different applies only to perfectly rational agents, which we are of course not. Offers may indeed be coercive based on the same mechanism as threats, however only for irrational agents, in other words, agents who are successfully tempted by an outrageously good offer.

Let us start with the pre-situation. As before, when discussing NOA, we can identify different sets of options that are available to agent B in each of the two situations. Two sets of options in the pre-situation are relevant to our discussion. The first set of options we are interested in contains the options of agent B to keep the money (option X/1) and the option to give away the money without reward of any type (option X/2). The other set of options agent A faces in the pre-situation entails the options of choosing death (option Y/1) or non-death, that is, life (option Y/2). While these option-sets are relevant to our discussion, it does not mean that they are relevant to agent B herself in the pre-situation. At least, if this means to suggest that she is aware and thinking about these options. They are options that are objectively given to agent B. This implies that agent B may, for example, go for the one of the two options in option-set X without much thinking at all about the option-set Y while, at the same time, that is, when choosing one of the two options in option-set X, she *de facto* chooses one of the options in the other option-set, that is, option-set Y as well. The two option-sets and the choices agent B makes, even though implicitly, are relevant, nevertheless, to us for understanding how it is that she is coerced into doing something.

	Pre-Situation		Post-situation
	Option-Set X	Option-Set Y	Option-Set X+Y
Option 1	+ 10 (keep money)	- 1000 (death)	(+10) + (-1000)
Option 2	- 10 (not keep money)	+ 1000 (life)	(-10) + (+1000)
Rational choice	Option X/1	Option Y/2	Option X+Y/2

Table 9. The relevant option-sets agent B faces in the pre-threat situation (option-set X and option-set Y) and in the post-threat situation (option-set X+Y) and their respective utilities for agent B.

Other than in the case of NOA, here the options are not qualified as ‘acceptable’ or ‘unacceptable’. Instead the different options are assigned a utility that is expressed by a certain

number. These numbers express the significance an option has for agent B given her needs and preferences. If an option is eligible to agent B, thus, depends on the subjective assessment agent B makes of this situation and not some purportedly objective moralised baseline. Let us assume that in the pre-threat situation 'option X/1' is an option that has a positive utility for agent B. The money would allow her to do certain things that are significant for her. She can, for example, go and buy things. Its utility for agent B is +10. Let us further assume that the alternative 'option X/2', the option of giving the money away without any type of reward is not in her interest because she would lose certain options that are significant for her. Its utility for agent B is -10. Let us now turn to another option-set of the pre-threat situation that is relevant to our discussion. Here the relevant aspect is not the keeping or giving away of money but the question of choosing between life and death. This choice that defines this option-set is luckily not often at stake. Let us assume that 'option Y/1' is probably the option that is the least in her interest of all options available to her. She definitely wants to live her life for choosing this option what mean to lose all other options. Its utility for agent B is -1000. The alternative 'option Y/2' is consequently very much in her interest. Its utility for agent B is +1000. Let us assume that agent B is a rational agent who is sensibly clear about her preferences. Confronted with each of the option sets in the pre-situation she would, thus, choose 'option X/1' from option-set X and 'option Y/2' from option-set Y. That is, she would choose to keep the money and enjoy her life.

Let us now examine the post-situation. Which changes does the threat of agent A induce in the options agent B faces? The threat of agent A links two in the pre-situation *unlinked* choices together. While before the threat agent B was independently considering the choice between 'option X/1' and 'option X/2' and the choice between 'option Y/1' and 'option Y/2', these two choices are now *linked* so that choosing 'option X/1' also means choosing 'option Y/1' and choosing 'option X/2' also means choosing 'option Y/2'. Agent B now faces the single but compound options of either choosing 'option X/1 + option Y/1' or choosing 'option X/2 + option Y/2'. This linking of the two choices considerably changes the overall calculus of agent A. She now faces the option-set X+Y. That is, the choice between the option X+Y/1 of keeping the money and dying or the option X+Y/2 of giving away the money and living. Given the preference structure of agent B this linking of option-sets has significant consequences for the eligibility of each of the compound options. In the option-set X+Y the unavoidable choice between 'option Y/1' and 'option Y/2' is clearly overriding

the choice between ‘option X/1’ and ‘option X/2’. Too high is the utility at stake in the choice between ‘option Y/1’ and ‘option Y/2’. Incomparable more than in the choice between ‘option X/1’ and ‘option X/2’. Whether to keep or to give away the money is a choice the significance of which pales given what is at stake for agent B in the same choice is the question of life or death.

With this rendering of the pre-situation and post-situation we have the necessary elements at hand to explain in which sense the threat by agent A makes ‘option X/1’ in the post-situation ‘less eligible’²¹⁰ than in the pre-situation. The option is ‘less eligible’²¹¹ to agent B because the choice between ‘option X/1’ ‘option X/2’ is no longer a choice she can make independently from other choices that are highly significant to her. We can conclude here that the non-physical mechanism that substitutes the constraint to the body is a specific change of the options of agent B such that the physical constraint becomes an internal constraint exerted by reason. Non-physical coercion ‘operated through the will’²¹² insofar as sticking to the original choice would be irrational. I contend that this non-physical mechanism provides us with the necessary components for a theory of force as involuntariness, that is, for solving the PIN. I explain this in more detail now.²¹³

5. Solving the Paradox of Involuntariness

I contend that whenever the non-physical mechanism is at play, the agent where the mechanism plays out can be said to be *forced* into doing what she does in the sense of involuntarily doing what she does. That is, the agent does what she does at the same time willingly and unwillingly – or, in short, willy-nilly. To see why the willy-nilly will structure is present whenever the non-physical mechanism is at play it is key to keep the distinction between pre-situation and post-situation in mind. I claim that we can make solve the PIN on the basis of the distinction between the two situations. That is, on the basis of this vocabulary agent B could make the following claims about the situation she found herself in in the ‘your money or your life’ example.

²¹⁰ Nozick 1969, 441.

²¹¹ Nozick 1969, 441.

²¹² Anderson 2015, 16.

²¹³ Clarifying the will structure of an agent who is coerced into doing something also contributes to a better understanding of Nozick’s original contribution. Nozick refers to the will structure that is induced by the non-physical mechanism only in vague everyday language terms. He claims, for example that coerced choices are choice which ‘are not fully one’s own, or fully voluntarily’ (Nozick 1969, 463). These are just alternative expressions for doing something involuntarily or willy-nilly.

- (1) I did choose to hand over the money given the post-situation I am in and—in this sense—did hand over the money *willingly*.
- (2) In the pre-situation I would not have chosen to hand over the money but would have kept the money.
- (3) I did not choose to be in the post-situation. I am in the post-situation only because of agent A. If it were up to me, I would choose to re-enter the pre-situation.
- (4) Hence, not to hand over the money is what I *really* want and—in this sense—I did hand over the money *unwillingly*.

Let us look step by step at the different claims and see whether and how they allow us to solve the PIN by making sense of the idea of agent B acting at the same time willingly and unwillingly. Claim (1) and claim (2) present no difficulties. With claim (1), agent B refers to the fact that, given the significantly reduced eligibility of the option of keeping the money, it is indeed her voluntary choice to hand out the money. This claim constitutes the one side of the PIN. It is in this sense that agent B is willingly handing out the money. This implies, however, that she is *unwilling* to keep the money. So how to explain the other side of the PIN that claims that she quite to the contrary wants to keep the money, that is, that she gives it away only unwillingly? Given that agent B is a rational agent it cannot be the case that she wants at the same time to keep the money. A rational agent cannot want A and non-A at the same time. The PIN still seems quite paradoxical. Let us examine claim (2). With claim (2) agent B refers to the fact that given a situation like the pre-situation in which the option of keeping the money is not linked to the option of dying, she would indeed choose to keep the money. What about this claim? This claim alone is also not enough to say that she did hand out the money unwillingly. For it is a simple fact of life that the situations we found ourselves in change over time and with them the choices we are prepared to make. Therefore, the mere fact that agent B would have made a different choice in a previous situation from the choice she made in the actual situation is not enough to say that she did it unwillingly. If we were to say so, then every action would be performed unwillingly relative to some previous situation. The PIN still seems quite paradoxical.

Agent B does, however, make further claims. With claim (3) she holds that it was not her choice to leave the pre-situation and to enter the post-situation. It was only for the threat of agent A that she was put in the post-situation and if she had the choice she would

indeed have stayed in or returned to the pre-situation. It is important to make a decisive shift explicit that is implicit in claim (3). Claim (3) takes us in as sense one step back and leaves the choice situations we were discussing before. That is, when discussing the non-physical mechanism, we were considering the choices agent B had *in* the pre-situation or *in* the post-situation. We did the same when discussing claim (1) and claim (2) as each of them refers to one of the two situations. Claim (3), however, does not refer to one of the two choice situations but refers to the choice *between* the two situations. It speaks in this sense to a more general choice or meta-choice. And it is with respect to this meta-choice that agent B claims that it was not up her to decide which option to choose. In fact, her choice would have been the pre-situation and not the post-situation that agent B's threat put her in. Agent B now asserts with claim (4) that it is with an eye to this meta-choice that she really handed over the money unwillingly despite claim (1). Claim (4) consist of two important claims: Firstly, she did hand over the money *unwillingly* and, secondly, she *really* wants the money. Let us examine the first claim. Why does the fact that she would choose the pre-situation entail that she did hand over the money unwillingly? To see this, we have to clarify that the only relevant difference between the pre-situation and the post-situation is the eligibility of the option to keep the money. From this follows that preferring the pre-situation over the post-situation can only mean to prefer being in a situation in which she can keep the money instead giving it away. Moreover, why can agent B secondly claim that this is what she really wants? Agent B can say so because it is only given that she is confronted with the narrower choice in the post-situation and under the condition that she cannot choose to return to the pre-situation for the threat of agent A that she chooses the action to hand over the money. In addition, because this is what she actually wants, it is adequate to state that she does hand over the money unwillingly.

Summing up we can say that agent B hands over the money willingly when we narrowly focus on the choice *within* the post-situation. When we focus on the meta-choice between the pre-situation and the post-situation, however, agent B would prefer to be in pre-situation where she can keep the money. Because of this wider view and the choice it entails, we can say that agent A did hand over the money at the same time—but on a more general level—unwillingly. Thus, the distinction between different choice situations or levels allows us to solve the PIN. Moreover, because agent B identifies with the more general level, we can say that—all things considered—she was acting involuntarily in the sense that

she acted willingly and unwillingly (on a more general level) at the same time. She was, in this sense, acting against her will and was forced into handing over the money. The solution to PIN is at the same time the answer to the question of the extension of INA.

Let me briefly address an important aspect of INA. Given this analysis of the notion of force, a certain difficulty may seem to arise. It can be brought out by the following quote from Nozick, who claims that

‘I may voluntarily [= willingly] walk to some place I would prefer to fly to unaided.’²¹⁴

The claim seems plausible. Only because I am not able to fly only by my own efforts to some place I would like to be but instead have to walk, that does not mean that I am *forced* to walk to this place. I can still go there willingly. It may seem, however, that this is an implication of INA. Of course, there is not an actual pre-situation in which I was able to fly to the bespoke place unaided, but this is also not necessarily implied by claim (3). It may be enough for the notion of force to be applicable according to INA that *if I had the choice* between flying to some distant place unaided and waking there, then I would choose the first option that is inaccessible for me in the actual world.²¹⁵ Even though INA may claim this it clearly seems erroneous to say that I am forced to walk. Whatever my preferences, the fact that I am in a situation where the option of getting to this place is necessarily linked to the option of walking does not mean that I am forced to go there.²¹⁶ I suggest that INA can, indeed, perfectly accommodate this claim and not because claim (3) would imply that the pre-situation must actually have been the case. To see why this is the case, we must shed more light on a specific aspect of the discussion of INA above. That is, the fact that we assumed that the linking of the two option-sets of agent B that were previously unlinked was brought about by agent A. It was an *anthropogenic* link between the two options in the sense that they were linked through the actions of an agent and not through some naturally occurring event. I claim that it only is for this anthropogenic link that agent B can say that he was handing over the money unwillingly. Why is this so?

²¹⁴ Nozick 1974, 262.

²¹⁵ I cannot dwell on this point here. I do think, however, that there are important examples in which we would rightfully claim that an agent is being forced into doing something while we cannot say that the agent has ever been in an actual pre-situation. Cases where someone is born in slavery or into a changed climate—such as many future generations will—are probably of this kind.

²¹⁶ This is of course what NOA would claim. Since I am confronted with a situation in which only one option is option to me while I would prefer something else suffices to claim that I am forced to walk to this place. I come back to this soon when comparing the two analyses of force.

The difference that becomes important here is the distinction between wishing something to be the case and wanting something to be the case. The difference can be spelled out in terms of aims and means.

(1) *To Will Something* If I want something to be the case ('the aim') I cannot but also want the means by which the aim can be realised.

(2) *To Wish Something* If I wish something to be the case ('the aim') I do not have to want the means by which the aim can be realised.

These definitions²¹⁷ would need further refinement but our intuitive understanding suffices for my purposes here. The important difference between 'wanting something' and 'wishing something' is that 'wanting something' is subject to an important limitation. I can only want something if I can at the same time want the means by which my aim can be realised. It is vital to note now that, according to INA, the notion of force is a claim about an agent's *will structure*, but not about what an agent wishes to be the case. It follows from there that according to INA an agent can only be said to be forced into doing something if she cannot only wish *but will* to be in the pre-situation. That is, it must be possible for her to want the necessary means.

If the link between the two previously unlinked options is anthropogenic then it is easy to see what the means to the aim would look like. If an agent wants to be in the pre-situation then the means that she necessarily wants is the other agent not to hinder her in doing so. In the robbery example above agent B wants the agent A not to be in a position to threaten her and thereby pushing her into the post-situation. Compare this to the example from Nozick. An agent in Nozick's example could only claim the following.

(1) I did choose to walk given the situation I am in (and in this sense walked willingly).

(2) I did not, however, choose to be in this situation.

(3) It is just how the world is.

(4) Hence, I can only wish (but I cannot will) to be in a different world where I could choose to fly unaided and would not have to walk.

²¹⁷ See Kant 1785, 4:417. I follow Wooram Lee in his descriptive reading of this section of Kant, see Lee 2018. Kant does not aim to spell out a normative requirement about what you ought to do (will the means) given that do something else (will an aim), it is rather an analysis of the meaning of 'to will something'. For an historical and systematic overview of the philosophical issues raised by the notion of the 'will' and related concepts, see Roughley/Schälke 2016.

The reason for this is that the link between the two options concerns bare facts about the world we live in. We humans are incapable of flying unaided. Therefore, an agent can only wish and not will to fly somewhere single-handedly—by what means could an agent will to do so? Therefore, INA can indeed capture our initial assessment: we cannot say that we are forced to walk to some place we wish we could to fly to.²¹⁸ Stated more generally, the model of a pre-situation and a post-situation and, thus, INA, is only applicable when the link between the two relevant option-sets is anthropogenic. Otherwise, we can indeed wish that the world was different but eventually simply must accept it the way it is—without any detrimental effects on our freedom as set out in terms of non-domination.

After having shown that we can make sense of INA let us now return to a different point I raised at the beginning of our discussion of force. That is, how can we distinguish the neighbouring notion of non-physical coercion as introduced above from a notion of non-physical force as it resulted from INA? As we have seen above when introducing the Nozick's definition of coercion, for coercion to take place there are more conditions than just the presence of the non-physical mechanism that must be met. Nozick convincingly demonstrates that it must also be the case that the agent A must *intend* to coerce agent B into choosing not to hand over the money (*intentionality condition*). Furthermore, to be an instance of a coercion, agent B must *actually choose* to hand over the money (*success condition*) and she must do so *because* of the threat—that is, it is not an instance of coercion if it is a mere coincidence that agent B decides at the same time as the threat is made to hand over the money for a different reason (*causal link condition*). In addition, it must be a *threat* that pushes and keeps agent A in the post-situation even though she would like to return to the pre-situation (*speech act condition*). It follows that according to the analysis of force proposed here non-physical coercion is only one specific instance of force as involuntariness. For someone to be forced into doing something *only* the non-physical mechanism must be present (*eligibility condition*).

That means that the notion of force proposed here (INA) focuses solely on the receiving end and describes the will structure of the forcee. It is not interested, however, in the forcer and its intentions. The only thing INA implies is—as we have seen in the

²¹⁸ Philip Pettit helpfully distinguishes between free, unfree and non-free, where non-free refers to situations in which we do only have one option but cannot be said to be unfree in the sense of being forced to do something (see Pettit 1989).

subsection before—that the link between the two options must be anthropogenic. That is, the reason the agent finds herself in the post-situation must be the result of the actions of another agent. That the notion of force is less demanding is also supported by our everyday use of this notion. To see this let us have another look at the nurse example from above. The claim that they sometimes must work overtime involuntarily and are in this sense forced to work overtime is not meant to imply that them being forced into doing so has been the intention of their superiors or anyone else. It is at the same time, however, not an outcome of natural processes or some kind of natural event. It is rather the result of underfunding and maybe poor management. Thus, the anthropogenic link that the notion of force requires is also given in this example while there is no further demand as to what those who are responsible for the underfunding or the poor management intended or said and so on. We can thus conclude that this rendering of force (INA) apart from being intelligible—we were able to solve the PIN—also has its counterparts in the everyday use we make of the notion of force.²¹⁹

We can draw three more conclusions that are crucial. At the beginning of this chapter, I presented the outline of Kantian political theory. Based on my discussion in *Chapter One* I claimed that this is an adequate approach to understanding the disturbingness of anthropogenic climate change. I then set out the contours of a Kantian notion of domination. Given my aim to apply this kind of theory to anthropogenic climate change, the challenge arose of how to modify the three elements that are at the core of the notion of domination. That a significant modification is necessary was clear from the fact that the so-called Anthropocene is defined by new circumstances of agency every agent finds herself in. This change already presented a considerable challenge to the established ethical theories in *Chapter One*. The first challenge for Kantian political theory was to develop an idea of how anthropogenic climate change could be understood as a form of predominance of the will of one agent over the will of another. To do so I turned to the notion of force, which is the paradigm case of such a relation. This move was supported by the fact that there is a

²¹⁹ The distinction between coercion and force suggests that we might also want to distinguish between different shades of domination. We would not say that those forced to flee because of anthropogenic climate change are enslaved by those who are in a position to change the climate. However, note that for the political wrong of domination only the conditions for force must be met on the side of the forcee. The distinctions alluded to here—even though sensible—seem to introduce considerations about the kind of agent those exerting force are. This may be relevant for an ethical assessment of the forcers but not for a political assessment that is only interested in the relations of wills, that is, the option-sets the relevant agents can avail of.

considerable body of research within forced migration studies in which the notion of force is almost naturally applied to anthropogenic climate change. However, the question still arose of whether we can indeed apply the notion of force and what we mean to say in doing so. Briefly summing up a relatively recent and rather marginal debate on the notion of force within this forced migration scholarship that converges on an analysis of the notion of force I called NOA, I proposed a different understanding of force that I called INA—an understanding of the core meaning of force as involuntariness, as doing something against my will. This understanding did, however, raise a significant difficulty for it seemed to be paradoxical and thus gave rise to PIN. Over the course of this section, I was, however, able to solve PIN. We can at this point draw as the *first* conclusion that there is indeed a way of rendering the notion of force that allows us to apply it to anthropogenic climate change. This is possible because there is a rendering of force that does not rely on some physical constraint of the body but works through the will via a non-physical mechanism.

Another, *second* conclusion we can draw here is that this notion of force is perfectly fit for Kantian political theory centred around the notion of domination for the notion of force as involuntariness (INA) provides us with an understanding of force that focuses on the relation of the wills of the agents involved. Whenever an agent is forced into doing something by way of the non-physical mechanism, then the will of another agent is predominant. It is not necessarily the same kind of predominance as in the case of coercion. The agent does not necessarily intend to force the other agent into doing something. Nevertheless, it is up to this agent to decide to do something or not to do something, and this decision will have normatively relevant effects on another agent. It will leave the agent with only one viable choice that she would not have chosen if it were not for the actions of the other agent—without the former having a say in whether the other agent performs these actions or not. In this sense, the will of the latter agent is predominant over the will of the former. In addition, this kind of predominance is enough for the notion of domination to apply.

With an eye to the challenge of the legitimate use of force, we can indeed draw the *third* conclusion here—as already mentioned in the introduction to this chapter. We can conclude that anthropogenic climate change *itself* must be understood as an instance of the basic scenario of conflict I introduced in *Chapter One*, which gives rise to the challenge of the legitimate use of force. Bringing about climatic changes under the fact of

disagreement, in itself, leads to such phenomena as forced migration that call for an approach that is different from climate ethics.

We have thus successfully developed a modified understanding of the relation of domination (ELEMENT 1) that is applicable to anthropogenic climate change. The first building block for a Kantian political theory of anthropogenic climate change is in place. Before addressing the question of the dominating party (ELEMENT 2) in *Chapter Three*, I want to say in the final section of this chapter something more on the competing analysis of force as NOA. So far, I have only argued that INA indeed is a viable analysis of the notion of force and that it is a perfect fit with Kantian political theory. However, what about NOA and INA more generally?

6. The Notion of Force and its Conceptual and Theoretical Web

I do not think that the question of which analysis of force is adequate can be answered by simply analysing different examples and looking whether our intuitions support the application of the one or the other. Our intuitions are not pure and unbiased indicators of adequacy. Whether our intuitions point in the one or the other direction depends on our understanding of other related concepts such as voluntariness or agency more broadly. It also depends on the other beliefs we hold. Such as our view regarding what a convincing normative theory looks like. I argue that this conceptual and theoretical context determines what analysis of a specific notion appears convincing to us. Intuitions regarding the plausibility of a certain understanding of a concept such as force are thus the child of the positions we hold in the broader semantical and logical web there are embedded in. There is, thus, no final and cogent word possible on what a convincing analysis of the notion of force has to look like. At least not by only analysing the notion of force.

Nonetheless, I want to show in this section that we have good reason to believe that INA can better account for the role force is meant to play in this broader web. As we will see, there is some conceptual confusion in the discussion on the notion of force in forced migration studies, confusion that INA can avoid. INA also better accounts for the theoretical beliefs many forced migration scholars seem to hold more broadly. I, therefore, claim that INA is also in this broader context superior to NOA.

Let us start by examining the broader conceptual web of NOA. To understand the intuition behind NOA, it is necessary to start from the attendant notion of a 'voluntary action' to see how we can from there make sense of the closely linked concepts of a 'forced action' and 'agency'.²²⁰ Those holding NOA define 'voluntary action' by reference to the options that are available to an agent. The key assumption is that the voluntariness of an action depends on there being more than one option available to the agent. If an agent acts voluntarily, then, she chooses her course of action from an option-set of more than one acceptable option. In fact, this is what in their eyes defines 'actions' in general, that is, volitional bodily movements. If this is the definition of an 'action' then it is plausible to assume that it is only in choosing between different acceptable options that someone exercises her 'agency'. It is against this conceptual context that NOA suggests itself. Consequently 'forced actions' are conceptualised as those actions where there is *no alternative* option available to the agent. If an agent has only a single acceptable option and cannot but choose it as her course of action then she is forced to do so. From here, a central problem arises with which all participants in the forced migration debate grapple.²²¹

To see why there is a problem we must consider another important and widely shared tenet in forced migration studies. That is, the assumption that no theory of forced migration and, thus, no understanding of force can be convincing that would deny migrants their agency and thereby reduce them to mere objects that are washed over the Earth's surface without recognising the underlying life projects and complex decision processes animating their choices from a rich option-set.²²² The denial of agency, however, appears to be a necessary result from the conceptual rendering as presented above. Agency, on the one hand, is defined such that it depends on there being more than one option available to an agent while, on the other hand, it is precisely this that is excluded by the very definition of force. Put differently, the proposed understanding of key concepts is such that voluntary actions are equated with volitional bodily movements. Consequently, everything that is non-voluntary necessarily appears to be non-volitional. This is why it would indeed

²²⁰For this order of analysis of the relevant notions, see Ottonelli/Torressi 2013.

²²¹ For an early and influential statement of this view within (forced) migration scholarship, see Anthony H. Richmond (Richmond 1994, 55–61). Nick van Hear, another influential figure in the migration debate, explicitly adopts Richmond's account (Van Hear 1998, 41–47; Van Hear 2009, 3f). From there it seems to have permeated much of the forced migration debate.

²²² David Turton raises this issue early with respect to the accounts of Anthony H. Richardson and Nicholas van Hear mentioned in Fn. 221 (Turton 2003, 9f). It is also central to David Bartram's (Bartram 2015, 439), Valeria Ottonelli und Tiziana Torressi's (Ottonelli/Torressi 2013, 788–792) and Marta Bivand Erdal and Ceri Oeppen (Erdal/Oeppen 2018, 985–987) discussion of different aspects of the notion of 'force'.

be accurate to speak of forced ‘actions’ only in quotation marks. All participants in the forced migration debate struggle to reconcile the assumption of the agency of forced migrants with the idea that they are *forced* migrants. I argue that this problem cannot be solved within NOA because it is built into the very framework of the definitions they work with. This, however, provides a good reason for those working on a notion of force in forced migration studies to look for a different account. I will show now that INA is one such account of force that can avoid these difficulties.

To understand the intuition behind INA it is important to see that it has a different conceptual web from NOA. While NOA was equating voluntary with volitional action to the effect that we could only speak of forced ‘actions’ in quotation marks, INA holds that all actions voluntary as well as involuntary (= forced) are actions without quotation marks, in other words, actions in the *full sense* of the word. They are all willed and therefore volitional bodily movements. However, how, then, does it understand the other linked concepts? Let us start with agency. According to INA, a voluntary *and* an involuntary action are instances of agency insofar as the agent is acting according to reasons.²²³ Both cases are not cases where the body of the agent moves without any relevant volitional act—as is the case in the famous example of the patellar reflex. On the contrary, in both cases, the agent weighs the different options that are available to her and decides for a specific course of action. According to INA it is this weighing of reasons and then acting accordingly what defines an agent and distinguishes her just as some forced migrant from some debris floating wherever the currents take it. From this perspective, a situation in which I reason that there is only a single acceptable option open to me and act accordingly is no different from one in which there are more than a single acceptable option. In both situations, I am exercising my agency just the same. Involuntary or forced actions differ from voluntary actions not with respect to the number of options that are available to the agent but insofar as the agent can act in line with her will in the former but against her will in the latter.

It is for this rendering of the conceptual map that INA does not run into the difficulty of denying forced migrants their agency while at the same time making sense of the idea of them being forced into migrating. However, not only is INA more convincing with regard

²²³ In the Theory of Action this is has been for a long time and still the standard account of agency. It goes back to Aristotle and has received revived interest in the 20th century following the works of G. E. M. Anscombe and Donald Davidson. For discussion of the standard account and an overview of the ensuing debate, see Schlosser 2015.

to its internal coherence, but there are also more reasons that make INA the more convincing account.

	NOA	INA
Action	Every bodily movement that is willed (volitional).	See definition NOA
Non-Action	A bodily movement that is not willed (non-volitional) by the agent. A popular example of an unwilled (non-volitional) bodily movement is the patellar reflex.	See definition NOA
Voluntary /Free Action	An agent acts voluntarily if and only if she chooses the action from an option-set with <i>more than one</i> acceptable option.	An agent acts voluntarily if and only if she does not act involuntarily.
Forced Action	An agent is forced to 'act' if and only she has no other acceptable option than to perform this act.	An agent is forced to act if and only if she acts involuntarily.
Agency	An agent exercises her agency if and only if she chooses between different options.	An agent exercises her agency if and only if she is acting for a reason.

Table 10: The conceptual web of NOA and INA

Let us now turn to the wider theoretical web the two analyses of force are embedded in. The main difference between NOA and INA can be put such that NOA is exclusively interested in the availability of specific options to an agent while it is of no import to NOA whether the access to these options is blocked by other agents or natural processes. INA takes quite an opposed standpoint. It is interested in the relation of wills of the relevant agents. That is, it is not interested in the availability of certain options as such. If access to

a specific option is blocked this does only matter if the origin of the inability to avail herself of the option is another agent. Non-agential origins can also matter, but they cannot be described as a form of domination.²²⁴

This difference is part and parcel of our normative assessments. The close link between the description of migration movements as forced and the substantial normative conclusions that are often drawn from it by forced-migration scholars is what motivated the recent wave of conceptual analysis.²²⁵ However, not only forced migration scholars make this close link. It is embedded in the political debates surrounding anthropogenic climate change. For instance, Rodney Williams, governor-general of Antigua and Barbuda, addressed the United Nations after Hurricane Irma devastated both Caribbean islands in September 2017 with the following words.

‘Today I ask how your governments will respond to this international crisis. We ask the international community to help us, not because we want to outstretch a begging bowl, but because forces far beyond our control have pushed us to this dire situation.’²²⁶

The first thing we can note is that we find here a description by those affected by anthropogenic climate change that indeed proceeds in terms of force. Williams claims that they are ‘pushed’ into this situation by ‘forces far beyond their control’. What he has in mind is clearly the anthropogenic origin of these events—at least this is what he claims. What we can also see is that the anthropogenic origin of these climatic events makes a significant normative difference for him. He does not view himself and the people he represents as beggars appealing to the benevolence of those who have. To someone who otherwise has nothing to do with their plight. Instead, he views it as an issue that transcends their local problems—it is an ‘*international crisis*’—, that is, an issue where some through their actions bring others into a situation where they are forced to spend billions to secure their safety and might eventually be forced to leave their home country.

²²⁴ Andreas Niederberger rightly points out that doing so would amount to a ‘categorical fallacy’ (Niederberger 2009, 195; my translation). It is important to note that this is not meant to say that there is nothing to say from a normative perspective in those cases in which the blockage has natural origins. What this is meant to say is that such situations cannot be described as cases of domination.

²²⁵ Valeria Ottonelli and Tiziana Torressi, for example, write the following before embarking on their conceptual analysis: ‘However, despite the important normative work it is often meant to perform, the notion of voluntariness is under-defined in the normative literature on migration and the range of meanings is surprisingly wide’ (Ottonelli/Torressi 2013, 785).

²²⁶ This quote is taken from: <https://www.nytimes.com/2017/09/19/climate/united-nations-caribbean-hurricane-relief-money.html> (last access: 1 January 2020).

I contend that taking into account the broader normative context demonstrates that an analysis of force, as provided by NOA, is not capable of mirroring this significant normative difference—for natural and human origins count equally. Climatic changes caused by natural processes are of equal normative standing with anthropogenic climatic changes. INA on the other side is capable of reproducing this difference. As set out above, only those situations in which an anthropogenic link between the previously unlinked options can be established count as instances of force. Moreover, if we should succeed with modifying also the other elements and, thus, be capable of describing anthropogenic climate change as a form of collective domination, then this has decisive normative consequences. It initiates the entire demand for political institutions necessary to overcome relations of domination.²²⁷ Therefore, I insist throughout the thesis on using the term ‘anthropogenic climate change’ rather than simply ‘climate change’.²²⁸

My hope motivating this last section was that making explicit the broader conceptual and theoretical web surrounding the notion of force helps to dispel some of the intuitive appeal that NOA seems to have for some and show why INA is indeed an interesting and probably even superior alternative. That is, it can avoid internal conceptual difficulties of NOA and is able to capture an important normative difference that many forced migration scholars, as well as those affected by anthropogenic climate change, want to draw. NOA, however, cannot reproduce this difference.

After having argued that we can indeed modify our understanding of the relation of domination (ELEMENT 1) in a way as to apply to anthropogenic climate change it is the aim of the next chapter to see whether we can do the same with our understanding of the dominating party (ELEMENT 2). For it seems clear that anthropogenic climate change is

²²⁷ That this is indeed a key distinction a Kantian political theory draws is clear from the following quotation from Kant. He writes that ‘[h]aving the resources to practice such beneficence as depends on the goods of fortune is, for the most part, a result of certain human beings being favored through the injustice of the government, which introduces an inequality of wealth that makes others need their beneficence. Under such circumstances, does a rich man’s help to the needy, on which he so readily prides himself as something meritorious, really deserve to be called beneficence at all?’ (DoR 6:454). Referring to this quotation, Rainer Fort rightly points out with respect to this distinction that ‘[i]gnoring this difference can lead one to misrepresent what is actually a requirement of justice as an act of generous ‘assistance’ or ‘aid’ to the poor or miserable, thereby possibly committing another wrong, namely, that of veiling the true nature of the injustice present’ (Forst 2015, 89).

²²⁸ To reflect this fundamental distinction also on a conceptual level between forced migration that is caused by either natural or social causes one could speak of ‘survival migrates’ in the first and ‘forced migration’ in the latter case. As we enter or already might have entered the Anthropocene it seems plausible to claim that there are only few cases left that amount to survival migration. While survival migration may be adequately met by forms of humanitarianism, this is never the case for forced migration which is a form of domination according to the analysis proposed here.

different from the more traditional cases of domination where some agent wields a certain power over another agent. Before engaging with this question, let me make a last remark. I have heavily drawn on Nozick's ideas in this chapter. And I do think that he is an extraordinarily lucid and stimulating thinker. At the same time, however, there is a key difference between his and my account of normative political theory that eventually affects the entire architecture of the theory and the conclusions that follow. While I do share Nozick's focus on relations of will, I reject his normative theory—a natural rights theory²²⁹—as unconvincing. It is, in fact, just another ethical theory in the sense discussed before and, therefore, is subject to the same criticism. Once again, the significant difference that the normative underpinnings result in can be revealed with respect to the need or not of political institutions. To see this, it suffices to contrast the Republicanism that is at the core of a Kantian political theory with the minimal state that Nozick envisions.

²²⁹ See Nozick 1974, ix and 10.

IV.

Chapter Three. Sunday Afternoon Joyrides, Individual and Collective Responsibility

The philosophical debate on climate change emerged in the wake of international negotiations on a climate treaty. The first question that engendered quite some controversy in the international arena as well as among philosophers was the question of how to distribute the burdens of coping with anthropogenic climate change equitably. This debate has helpfully been labelled as *distributive climate justice*. More recently another question has gained increasing attention. Given the rather bleak outlook for global action on anthropogenic climate change, authors turned to individual agents instead. These scholars are especially interested in determining our individual climate duties given the absence of a global treaty on emission reductions as well as a lack of active climate policy at the state level. In the words of Walter Sinnott-Armstrong: 'If the government fails to do anything about global warming what am I supposed to do?'²³⁰. This theoretical endeavour has helpfully been labelled as *individual climate ethics*.²³¹

The normative approaches that have been brought to bear on these questions are mainly ethical. In *Chapter One* of this dissertation, I argued that the established approaches are unfit to meet the challenge that anthropogenic climate change poses: the challenge of the legitimate use of force. To do so, what we need is a political theory approach. At the beginning of *Chapter Two*, I provided the outline of a Kantian political theory, claiming that it is specifically geared towards answering this kind of challenge. At the same time, anthropogenic climate change is defined by new circumstances of action that are different from those a Kantian political theory has been brought to bear. We had already seen in *Chapter One* that this led to serious difficulties for the established ethical theories to account for the specific kind of wrong anthropogenic climate change poses. The same is true for political theories. They also must be modified to apply to the changed circumstances of action that define anthropogenic climate change. At the core of a Kantian political theory stands the notion of domination. The notion of domination can be split into three elements: the

²³⁰ Sinnott-Armstrong 2010 [2005], 333.

²³¹ Fragnière 2016, 798.

relation of domination itself (ELEMENT 1), the dominating party (ELEMENT 2) and the dominated party (ELEMENT 3).

It is the main thesis of this dissertation that modifying a Kantian political theory to apply to anthropogenic climate change leads to an understanding of anthropogenic climate change as a form of *collective domination*. It was in the previous chapter that I developed a notion of *non-physical* force that is amenable to a Kantian rendering of ELEMENT 1 as a relation of the predominance of one will over another, a notion of force that is at the same time applicable to the new circumstances of action characteristic of anthropogenic climate change. This chapter aims to show that we cannot think of ELEMENT 2 in the traditional way, that is, as a form of *individual* domination such as captured in the paradigm case of the master-slave relation but have to conceive of it as a form of *collective* domination in which *we collectively* stand with respect to current and future generations.

I want to establish this claim by closely engaging with the recent debate within climate ethics on individual climate duties. Even though a mainly ethical debate, the more fundamental question of whether we must understand anthropogenic climate change as an individual or a collective relation also arises there. It does so because the ethical principle the debate is centred on to attribute moral responsibility²³²—the no-harm principle—is a causation-based principle just as the notion of domination. It is on this shared causal basis that for both cases the question arises of what effects the indirect and mediated causal structure of anthropogenic climate change has for the specific shape of the causal responsibility of individual agents and, consequently, for the attribution of moral responsibility. The vast majority of those working on the question of individual climate duties assume that the causal structure even though different from other more traditional cases has no effects for the kind of case they are dealing with. They aim to establish that individual emissions²³³ *as such* are wrong for the same reasons as, for instance, a kick in the shins is wrong. That is, both actions *as such* cause harm and, thus, violate the no-harm principle. I call this the individual wrong thesis (IWT). Even though widely held, I argue that this assumption is mistaken and that this is so precisely for the specific causal structure that defines anthropogenic climate change. The changed circumstances of action that correspond

²³² I use the terms ‘duty’, ‘obligation’ and (forward-looking) ‘moral responsibility’ interchangeably.

²³³ I use the formulation of ‘individual emissions’ as shorthand for those actions of an individual agent that have the consequence of increasing the agent’s personal carbon footprint. The personal carbon footprint is a measure of the total amount of CO₂ emissions that are attributable to an individual agent because of the products she purchases, the means of transport she chooses, the kind of food she consumes and so on.

to this causal structure have significant systematic effects for the relation of causal and moral responsibility. Taking those changes into account supports the conclusion that anthropogenic climate change is a collective and not an individual wrong. That is, the no-harm principle cannot be directly applied to the individual but only to the collective level and, thus, gives rise to a collective and not an individual responsibility.²³⁴ Call this the collective wrong thesis (CWT). Given the shared causal basis, the same argument holds for the relation of domination and it follows from there that anthropogenic climate change is indeed a form of collective and not of individual domination.

The structure of this chapter is as follows. I start by rehearsing the recent debate on individual climate duties within climate ethics (1). This allows me to gather crucial evidence for the claim that the participants in the debate actually rely on the IWT. That is, they all share a specific analysis of the relation of causal and moral responsibility. I call this the ‘established analysis’ of anthropogenic climate change (2). I then present an alternative analysis of anthropogenic climate change that strongly suggests that the alleged relation between causal and moral responsibility does not hold. This alternative analysis supports the CWT instead. I call this the ‘alternative analysis’ of anthropogenic climate change (3). After having set out both analyses on rather intuitive grounds, I propose a two-pronged argument that demonstrates why the alternative analysis is indeed adequate while the established analysis fails to capture the distinctive kind of wrong anthropogenic climate change poses (4-6).

1. The Debate on Individual Climate Duties

The systematic starting point of the debate on individual climate duties is a contribution by Walter Sinnott-Armstrong from 2005. In his article ‘It’s Not *My* Fault: Global Warming and Individual Moral Obligations’ he raises the question of whether individuals have a duty to reduce their personal carbon footprint²³⁵ given that governments fail to act on anthropogenic climate change. He introduces this question with a by now famous example of a Sunday afternoon joyride with a gas guzzler.

‘My example will be wasteful driving. Some people drive to their jobs or to the store because they have no other reasonable way to work and eat. I want to avoid issues

²³⁴ The notion of responsibility and a wrongdoing are closed linked. A wrongdoing is the violation of a duty. That is why I use both terms more or less interchangeably in what follows.

²³⁵ For ‘personal carbon footprint’, see Fn. 233.

about whether these goals justify driving, so I will focus on a case where nothing so important is gained. I will consider driving for fun on a beautiful Sunday afternoon. My drive is not necessary to cure depression or calm aggressive impulses. All that is gained is pleasure. Ah, the feel of wind in your hair! The views! How spectacular! Of course, you could drive a fuel-efficient hybrid car. But fuel-efficient cars have less ‘get up and go.’ So, let us consider a gas-guzzling sport-utility vehicle. Ah, the feeling of power! The excitement! Maybe you do not like to go for drives in sport-utility vehicles on sunny Sunday afternoons, but many people do.’²³⁶

Sinnott-Armstrong points out that the example of joyguzzling²³⁷ is meant to be a case in which it is difficult to find any reason that justifies the emissions. The case would probably become more difficult from the outset if we were to take as an example the emissions of an ambulance or someone who has no other option than to commute to work by car. However, if individual emissions are problematic, then joyguzzling will definitely be one of the problematic instances because ‘nothing so important [compared to an ambulance ride] is gained’²³⁸. Note also that considerations such as imposing a risk on pedestrians or the more immediate consequences of the exhaust, should someone happen to inhale it, are to be disregarded. The question really only is ‘whether *the facts about global warming* give me any moral obligation not to drive a gas guzzler just for fun on this sunny Sunday afternoon’²³⁹.²⁴⁰

After setting the stage by way of this example, Sinnott-Armstrong argues that they do *not*. He does so by reviewing no less than 15 moral principles. Analysing their bearing on individual emissions he concludes that none of them supports the claim that we have a moral obligation not to go for a joyride with a gas guzzler. This claim engendered much controversy, especially his arguments against the applicability of the no-harm principle. Contrary to his analysis, the no-harm principle seems to many authors the most promising and straightforward principle to explain their strong intuitions that individual emissions as

²³⁶ Sinnott-Armstrong 2010 [2005], 333.

²³⁷ Evan Kingston and Walter Sinnott-Armstrong introduce this helpful shorthand for ‘going for a joyride with a gas guzzler’ in a more recent article (Kingston/Sinnott-Armstrong 2018, 169).

²³⁸ Sinnott-Armstrong 2010 [2005], 333.

²³⁹ Sinnott-Armstrong 2010 [2005], 334; my emphasis.

²⁴⁰ The ‘facts’ mentioned in the citation comprise the main results that scientific evidence supports, such as laid down in the IPCC reports: That the climate is already changing and that more profound changes to the earth’s climate are very likely to occur. That there is abundant evidence that these changes are human-induced—among others, through the emissions we cause by burning fossil fuels such as gasoline—and that the consequences of these changes already do affect people living today but will affect, above all, future generations very seriously. (Sinnott-Armstrong 2010 [2005], 332f)

such are wrong.²⁴¹ While this is true for the academic context, environmentalists and others within the broader public also argue in favour of a duty to reduce one's personal carbon footprint by emphasizing the important difference that doing so makes.²⁴² Thus, they rely—albeit implicitly—on some notion of a no-harm principle.

The core reasoning behind the no harm-principle is simple. If my action is going to cause harm to another person, then I have a (*pro tanto*)²⁴³ duty not to perform that action. Consider the example of a kick in the shins. If I ponder over whether it might be permissible for me to follow my inclination and kick you in the shins, the no-harm principle clearly tells me that it is not. It unmistakably supports the claim that I have a moral obligation to *not* kick others in the shins because this would obviously harm them. There is, of course, much more to be said with respect to the notoriously difficult concept of harm.²⁴⁴ Fortunately, we do not have to address these difficulties here. I will clarify some aspects of the no-harm principle that are especially relevant to our discussion in the next section. None of these, however, touching controversial parts of it. Each reader can conveniently stick to her intuitive understanding throughout the whole chapter.

I now want to rehearse the arguments proposed in the debate on individual climate duties for and against the applicability of the no-harm principle to the case of joyguzzling. Let us start with Sinnott-Armstrong's argument. Sinnott-Armstrong illustrates his point by way of the following dis-analogy.

²⁴¹ Along these lines Joakim Sandberg for example contends that 'the most natural starting point for ethical discussions in this context is a principle that focuses on the wrongness of inflicting harm on people' (Sandberg 2011, 230).

²⁴² Carol Booth systematically surveyed the internet for the kind of recommendation various institutions etc. give to individual agents and the reasoning they offer. She found that 85% are directed at individual 'perpetrators'—as she calls individual emitters in line with a moral approach that stresses the harm they cause as individual emitters (Booth 2012, 400f). The traction the no-harm principle seems to have in the context of climate change is probably also why Sinnott-Armstrong discusses it as the first of the 15 principles he engages with.

²⁴³ Such a qualification seems necessary to many authors to account, among others, for situations in which more than one duty seems to apply and thus a weighing of the different duties is necessary. A *pro tanto* duty is then distinguished from an all-things-considered duty (Alvarez 2017, 6f). The debate on ICDs I am rehearsing here is, however, only interested in whether the no harm-principle does support individual climate duties *at all* and we can, therefore, set such more comprehensive considerations aside. I omit such qualifications and simply speak of a duties and obligations.

²⁴⁴ These difficulties are usually hidden behind its seemingly unproblematic and pervasive use in everyday moral discourse. Once we start to think about its underlying mechanics the apparent simplicity of the notion of harm, however, dissipates. One reason for this is its 'comparative' nature: to harm someone means to make someone worse off *than* she otherwise would have been—and here the difficulties start. Than what? Two important and mutually exclusive interpretations have been proposed. The one is counterfactual, the other historical. The former claims that the point of comparison is the counterfactual situation in which the person inflicting the harm 'would not have acted', the latter that the point of comparison is the historical situation in which the person inflicting the harm 'has not yet acted'. For an excellent discussion of both interpretations and its intricacies, see Perry 2003. The analysis of the notion of harm becomes only more difficult when we consider issues such as the non-identity problem, which is of great importance to anthropogenic climate change (Parfit 2010 [1984]).

‘Contrast someone who pours cyanide into a river. Later someone drinking from the river downstream ingests some molecules of poison. Those molecules cause the person to get ill and die. This is very different from the causal chain in global warming, because no particular molecules from my car cause global warming in the direct way that particular molecules of the poison do cause the drinker’s death. Global warming is more like a river that is going to flood downstream because of torrential rains. I pour a quart of water into the river upstream (maybe just because I do not want to carry it). My act of pouring the quart into the river is not a cause of the flood. Analogously, my act of driving for fun is not a cause of global warming.’²⁴⁵

The dis-analogy between the poison-case and the water-case is meant to bring out a decisive normative difference that militates against the applicability of the no-harm principle. While the NHP clearly tells us that pouring cyanide into a river is wrongful, it hardly seems to deliver any objection against pouring a quart of water into a river with an already high water level. However, what exactly does the work in this argument? In the debate on individual climate duties, the vast majority takes the argument to point to the fact that a quart of water is not going to cause any *significant* harm. The causal role of a quart of water is just too small to be normatively relevant.

So how did those who take Sinnott-Armstrong to argue that individual actions are only like a drop in the ocean and therefore normatively insignificant try to refute this claim? Prominent rejections came from John Broome²⁴⁶ and John Nolt²⁴⁷. Their rebuttal followed the same logic: both sought to propose a calculation to show that individual emissions are, contrary to what Sinnott-Armstrong contends, normatively relevant. Individual emissions are significant from a no-harm perspective. I focus here on John Nolt’s proposal. He proposed the following calculation:

‘We estimated above that the average American is responsible for about one two-billionth of current and near-term emissions. Yet even if emissions are reduced to low levels fairly quickly—that is, even under the most optimistic of scenarios—billions of people may ultimately be harmed by them. If over the next millennium as few as four billion people (about 4%) are harmed (that is, suffer and/or die) as a result of current

²⁴⁵ Sinnott-Armstrong 2010 [2005], 335.

²⁴⁶ Broome argues that the lifetime emissions of an average person living in ‘the west’ will cause the loss of six months of healthy human life or between \$19,000 and \$65,000 (see Broome 2012, 75).

²⁴⁷ Nolt 2011b & 2013.

and near-term global emissions, then the average American causes through his/her greenhouse gas emissions the serious suffering and/or deaths of two future people.²⁴⁸

Nolt reaches, indeed, quite a different conclusion from Sinnott-Armstrong. According to his rationale, an average American can be held responsible for up to two future deaths. This number refers to the emissions that an American causes, on average, over the course of her lifetime. The object of analysis we are interested in is, however, much smaller in scale. We wanted to know whether the single instance of an individual emission such as a joyride on a sunny Sunday afternoon could be deemed significant in terms of harm. Avram Hiller, another scholar working on climate change, assumes the task to break this analysis down to the level of single individual emissions. Hiller concludes that Nolt's calculation gives us reason to believe that going for a joyride is indeed morally problematic.²⁴⁹ He contends that a single joyride can be translated into the harm-equivalent of spoiling someone's afternoon. These expected consequences, Avram Hiller concludes, seem significant enough to conclude, based on the no-harm principle, that we have an obligation to refrain from joyguzzling.²⁵⁰

As mentioned above, there are some authors that interpret Sinnott-Armstrong along different lines. One such different interpretation takes him to argue that individual emissions do *not* make a difference in terms of overall consequences.²⁵¹ This argument is sometimes called the Argument from Inconsequentialism. There are various reasons proposed regarding why we should think so. Some argue that individual emissions are inconsequential due to certain threshold-effects. They argue that it makes no difference whether the action in question is performed because a certain threshold will not be crossed and so the amount of harm caused will remain the same.²⁵² The example often used in this context is a flight from A to B. Assuming that any specific flight would take place whether or not I am on the plane, it is reasonable to conclude that my individual action makes no difference.²⁵³

²⁴⁸ Nolt 2011b, 9.

²⁴⁹ Hiller 2011, 20.

²⁵⁰ Similar claims are supported by many other authors. For an example, see Spiekermann 2014, 76. It seems to me, however, that the thrust of the argument that a preference for my fun afternoon over yours is wrong is strongly motivated by an additional moral principle that condemns egoistic choices like having fun at the expense of others. For the sum of the benefits/harms yielded is the same whether I enjoy my afternoon while joyriding or you enjoy your afternoon while relaxing in a hammock.

²⁵¹ Rendall 2015, Sandberg 2011. Their interpretation of Sinnott-Armstrong's arguments in his 2005 article seems indeed to be confirmed by Kingston/Sinnott-Armstrong 2018, 180f.

²⁵² For a more elaborate overview of this line of argument, see Fragnière 2016, 801f.

²⁵³ Sandberg 2011, 231f.

Another version of the argument cites market processes as the reason why individual decisions for or against a specific action make no difference. It is maintained that individual decision not to purchase a specific amount of gasoline, for example, will only result in someone else purchasing this amount in addition to what she would have purchased anyway. This phenomenon is called the ‘rebound effect’. Another market effect that, it is argued, frustrates all attempts to reduce overall emissions is the so-called ‘carbon leakage’. What appears at first glance to be a significant reduction of overall emissions in high-emitting countries in the global north eventually turns out to be the effect of outsourcing of those emissions to, primarily, the global south.²⁵⁴ Still another version of an argument to the same effect is the claim that anthropogenic climate change is a tragedy of the commons and raises the notorious problem of freeriding. That is, it is not reasonable to expect that unilateral individual reductions in resource use will actually make any difference because it probably will only have the effect that someone else uses up this very share of the resource that was saved. In the case of anthropogenic climate change, the resource that is depleted is usually thought of as the Earth’s absorptive capacity.²⁵⁵

The various arguments that challenge the effectiveness of individual emission reductions, just as the argument that points out the insignificance, are all understood to bolster a collectivist approach to coping with anthropogenic climate change, and I think rightly so. Hence, what is there to be offered additionally? How is the rationale presented in this chapter different from these arguments? I contend that it is very different, indeed. All the arguments, whether for or against an individual climate duty, are based on the *same* analysis of anthropogenic climate change as an individual wrongdoing. They only argue about the *empirical* side of their respective arguments. If, for example, all the concerns presented by those sceptical about the viability of a no-harm approach could be met, nothing would prevent us from applying the no-harm principle directly to individual emissions. I argue that this is mistaken, and that a *systematic* reason precludes applying the no-harm principle to individual emissions either way. The underlying analysis of individual emissions as individual wrongs is mistaken. Anthropogenic climate change is a collective wrongdoing. Additionally, another difference becomes visible here. While the collectivist approaches mentioned above are collectivist in the sense of referring to collective agents—such as states or

²⁵⁴ For a more elaborate discussion of this line of thought, see Fragnière 2016, 802f.

²⁵⁵ Baylor, 2003.

companies—as opposed to individual agents, the notion of a collective wrongdoing aims at quite a different point. It entails the claim that the no-harm principle can only be applied directly to the group of all emitters *together* but not to individual agents as such, because only the group of all emitters fulfils the conditions of moral responsibility while individual agents do not. Building on Sinnott-Armstrong’s claim, we can state that anthropogenic climate change is not my fault—it is *our* fault. Herein is the link of this discussion to the main thesis of this dissertation. If only the group of agents fulfils the conditions of moral responsibility then the notion of domination also only applies to them and not to each agent as such.

In fact, I think that Sinnott-Armstrong was aiming at the systematic point I develop in this chapter. The interpretations discussed so far all missed the point of his argument because they emphasise the wrong part of the quotation. They take him to argue that the causal role of individual actions is, for one reason or the other, *quantitatively* negligible. I do think, however, that the main point he wants to make is *qualitative*. Sinnott-Armstrong tries to capture this qualitative feature by saying that individual emissions do not cause climate change in ‘the *direct way*’²⁵⁶ that death is caused by the cyanide. However, I concede that Sinnott-Armstrong did not provide a convincing explanation for what he is exactly aiming at with the distinction between a direct and indirect causation, and why this distinction should matter with regard to individual duties. Moreover, he has made it difficult to see the import of this distinction while he is introducing it. This suggests that he was uncertain of how the distinction comes into play and what results from it. I shall come back to this point later.

I argue over the course of this chapter that it is this qualitative feature that necessitates the distinction between individual and collective wrongdoing. This feature shows that—irrespective of the harm individual emissions cause—there is a systematic reason why we cannot apply the no-harm principle to individual emissions directly and thus cannot derive individual climate duties directly by assessing the amount of harm individual emissions cause but have to take into account the collective level to say something about the individual level.

²⁵⁶ Sinnott-Armstrong 2010 [2005], 333; my emphasis.

2. The Established Analysis. Anthropogenic Climate Change as Individual Wrong

This section aims to extract from the debate on individual climate duties we just rehearsed the analysis of anthropogenic climate change as an individual wrongdoing. I call it the established analysis of anthropogenic climate change. To do so, let me start by clarifying the normative principle the debate is based on, that is, the no-harm principle. In his article, Sinnott-Armstrong proposes the following formulation of the no-harm principle that suffices for our purposes.

No-Harm Principle 'We have a moral obligation not to perform an act
that causes harm to others.'²⁵⁷

Let me clarify two aspects of the no-harm principle. Firstly, it is common to distinguish between forward-looking and backward-looking responsibility. Responsibility can be forward-looking in the sense that it is a responsibility to perform or refrain from performing a specific action, to bring about or to refrain from bringing about a certain state of affairs and so on. A more common way to refer to this kind of responsibility is to speak of duties or obligations. It can be backward-looking insofar as the responsibility for failing to discharge a forward-looking responsibility at some point lies in the past. A more common way to refer to this kind of responsibility is the notion of guilt. The discussion on individual climate duties is primarily interested in forward-looking responsibilities. Even though important, this distinction is not central to the discussion of this chapter. It is enough to bear in mind that backward-looking responsibility is different from forward-looking responsibility only with respect to the point in time the action we assess is situated. At the core of both notions, however, is the idea of a duty that either is to be fulfilled or was not fulfilled. I am interested in the rationales that speak for or against such a duty, either past or future.

Secondly, I want to clarify another important aspect of the no-harm principle that will eventually lead us to the formulation of two key questions. It can be brought out by recalling a fundamental distinction between two kinds of moral principle that are used to attribute responsibility. One kind is causation-based the other not. Causation-based principles attribute responsibility by tracing the causal chains back from the normatively problematic outcomes to the agents who caused them. Non-causation-based principles attribute responsibility independently of the causal relations that obtain between agents and

²⁵⁷ Sinnott-Armstrong 2010 [2005], 334.

consequences—either past or future. In the context of the debate on principles that should govern the distribution of the burdens of coping with anthropogenic climate change, for example, we find principles of the two kinds. The famous polluter pays principle is an example of a causation-based principle. It holds that those who are causally responsible are also morally responsible to bear the burdens that go along with, among others, mitigation and adaptation efforts. The ability to pay or beneficiary pays principles, two other famous principles in this context, are instances of non-causation-based principles. Here the responsibility to cope with anthropogenic climate change is distributed irrespective of whether or not an agent is causally responsible for anthropogenic climate change. Rather, their ability as defined by economic status, knowledge, etc. or the benefits they are harvesting from emissions (often from others) is thought to determine responsibility.²⁵⁸ With respect to this fundamental distinction, the no harm-principle serves in the debate on individual climate duties as a place-holder for any more specific kind of causation-based principle. The question really only is whether we can attribute individual duties based on the harm individual emissions are causally responsible for. What is not important, however, is any specific notion of harm. Harm serves here as a generic notion for any kind of normatively relevant outcome. It is usually not further specified. It can be spelled out in terms of whatever ToG the reader prefers.²⁵⁹ The only requirement is that—given the case that individual actions do cause significant such harm—the notion must support the attribution of a moral duty or obligation.

After this clarification on the no-harm principle, we can now identify two questions every attempt at determining individual duties on the basis of this principle has to answer. The questions are the questions of causal and of moral responsibility.

- (1) *Question of Causal Responsibility* What are the outcomes an individual agent is *causally* responsible for?
- (2) *Question of Moral Responsibility* What are the outcomes an individual agent is *morally* responsible for?

²⁵⁸ Moellendorf 2012.

²⁵⁹ For an overview of the various ToGs that are applied to anthropogenic climate change within climate ethics, see *Chapter One*, Sec. 1.

These are the two guiding questions along the lines of which I shall carve out the main differences between the established analysis and the alternative analysis. So how does the established analysis answer these questions?

I begin with the question on causal responsibility. It arises from a no-harm perspective because in cases like anthropogenic climate change it is not immediately clear what harmful outcomes are to be attributed to the emissions of a specific individual. To see this, compare the individual emissions of a random person to the same person kicking someone in the shins. While it is clear which harmful consequences we must attribute to the kick in the shins, it is not obvious which harmful consequences are to be attributed to specific individual emissions. The reason for this is that the relations between causes and effects are way more complex in the context of anthropogenic climate change than in the case of a kick in the shins.²⁶⁰ It will often take tens and hundreds, maybe even thousands of years before the specific emissions of a specific person today will cause some harm in a remote corner at the other end of the world than they have been emitted. Hence, for any causation-based approach, the question arises of how to relate specific individual emissions with specific harmful outcomes.

The answer the established analysis proposes can be captured by the following formula. Nolt and Hiller employ this formula in their calculations and, in their reading, it is also implicit in the flooding-analogy we found in the quotation from Sinnott-Armstrong. It is, indeed, quite an intuitive approach to answering this question of causal responsibility in cases like anthropogenic climate change and is also often employed in public debates.

$$\frac{\text{Individual harm}}{\text{Total harm}} = \frac{\text{Individual emissions}}{\text{Total emissions}}$$

The core assumption is that the harm we can attribute to an individual agent is her share of the total harm such that the ratio between individual harm and total harm is the same

²⁶⁰ This is a common place in the climate change debate. A classical statement of the complex nature of the causal relations in anthropogenic climate change is from Stephen Gardiner (Gardiner 2006). Gardiner points to the ‘dispersion of causes and effects’ (Gardiner 2006, 399) (spatial and temporal) as one of the central features of anthropogenic climate change that helps to explain widespread climate inaction.

as the ratio between individual emissions and total emissions. I refer to this assumption in the following as FORMULA. FORMULA can be illustrated as follows.

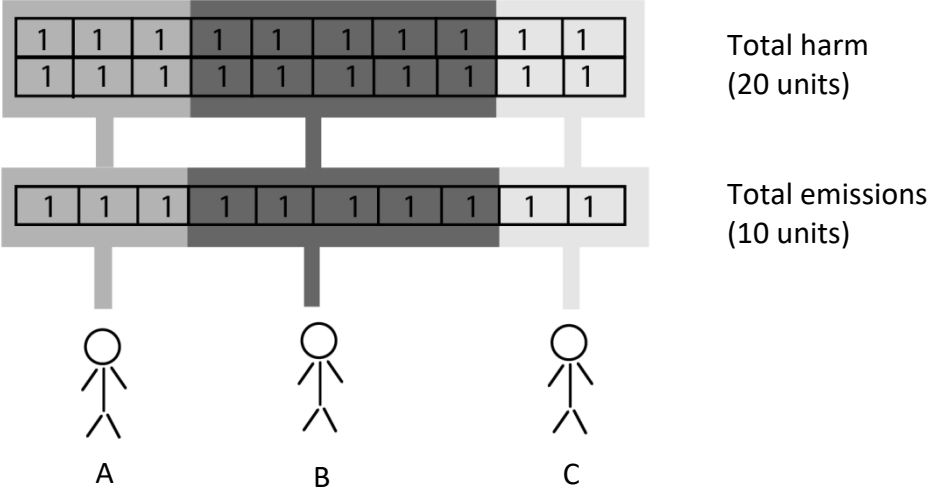


Figure 4. The areas highlighted in grey indicate the emissions of the individual agents A, B and C and the corresponding amount of harm they are causally responsible for according to FORMULA.

FORMULA can be challenged on different grounds. A first line of critique could suggest that there is indeed nothing to prevent it being the case that the specific GHGs an individual agent emits are being absorbed by some carbon sink, cause no warming at all and, thus, cannot be said to contribute to climate change in any way. To keep it simple, imagine, for example, that the specific GHGs are absorbed by a tree. The general claim this critique forwards is that we have good reason to believe that FORMULA does not trace the *actual* causal pathways that connect the specific individual emissions of an agent to some amount of climate harm her emissions cause. Consequently, FORMULA cannot serve as the basis for determining individual moral responsibility via a causation-based principle because what counts here is only the *actual* harm that is caused. One other reason speaking in favour of this general claim is to argue that the specific amount of harm caused by an increase in the overall greenhouse gas level by one unit differs with the time of emission. This problem could be expressed, somewhat more technically, as the question of the actual shape of the greenhouse gas/harm-curve. It would be argued that the relation between the greenhouse gas level and climate harm is not linear but rather displays certain thresholds. Moreover, given the vast complexity of the climate system, we could assume that this is the case. We can gather these types of challenges to FORMULA under the heading of

problems of harm-attribution. Some authors mentioned above take this route in the debate on individual climate duties to challenge the idea of an unproblematic application of the no-harm principle as a causation-based principle.²⁶¹

Above, we reviewed another way to challenge FORMULA—the so-called Argument of Inconsequentialism. Since we are already familiar with different versions of this rationale, I only explicate the underlying mechanism that supports all versions of this argument. At its heart lies the adequate observation that those proposing FORMULA to determine the causal role of specific individual emissions must draw on a certain understanding of causation. As they point out, the approach that underpins FORMULA is the well-known ‘counterfactual analysis of causation’²⁶². The idea of this analysis of causation is the following: A is the cause of B if and only if the *counterfactual* holds that if A had not occurred then B would also not have occurred given that we hold all other circumstances fixed. Applied to anthropogenic climate change this means that the proponents of the established analysis must assume that the specific outcome they attribute to an individual emission as its cause via FORMULA would not have occurred if the individual agent in question had not performed the relevant actions. I call this idea the difference making-criterion.

Difference-Making Criterion An individual is causally responsible for those outcomes and only for those outcomes the occurrence of which its actions make a difference (while holding all other circumstances fixed).

This counterfactual analysis of the causality of individual agents is targeted by the argument from inconsequentialism. Its proponents point out a different mechanism that may result in individual emissions making *no* difference to the overall climate harm that is caused. The harm that FORMULA attributes to individual actions occurs either way.

Even though serious challenges to a no-harm approach for understanding the wrong of anthropogenic climate, we can ignore these issues here. The problem of harm-attribution, as well as the argument from insignificance, only raises empirical or practical difficulties of the established analysis while my aim is to show that the established analysis is more fundamentally flawed. Let us, therefore, set aside such complicating considerations

²⁶¹ For an illuminating and sophisticated discussion of the general difficulties involved in dis-aggregating total outcomes, see Kernohan 2000. Andrew Kernohan refuses the possibility of dis-aggregation given the lack of knowledge that usually defines cases with accumulative consequences.

²⁶² Lewis 1973, 557. David Lewis gives in his 1973 paper a by now classical analysis of causation. For a general overview on the recent debate as well as on the counterfactual analysis of causation, see Hitchcock 2018.

and assume instead over the course of the following discussion that FORMULA does map seamlessly on the actual causal pathways that hold between individual emissions and (parts of) the harm caused by anthropogenic climate change.

The second question is the question of moral responsibility. Given that we want to answer this question on the basis of a causation-based principle, the answer seems to suggest itself. The harm an individual agent is causally responsible for is the harm that she is also morally responsible for. Put differently, causal responsibility and moral responsibility are in alignment. This answer can be illustrated in the following way.

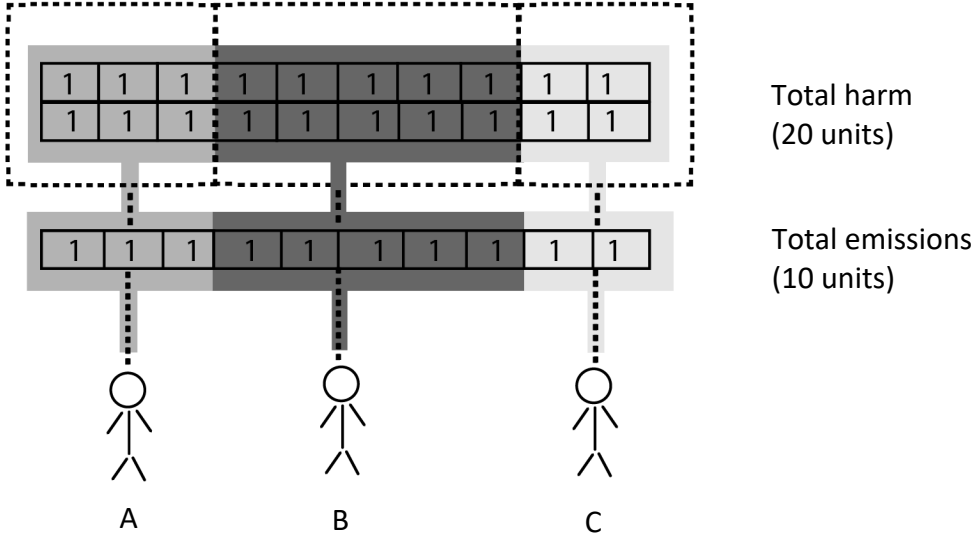


Figure 5. The areas highlighted in grey indicate the emissions of the individual agents A, B and C and the corresponding amount of harm they are causally responsible for according to FORMULA. The dotted line indicates the amount of harm the individual agent A, B and C are morally responsible for according to the established analysis.

Call this the alignment assumption. The alignment assumption is shared by all participants of the debate, irrespective of whether they think individual emissions are significant, are adequately identified by FORMULA, do or do not make a difference and so on. They all contend that whatever consequences individual agents cause through their emissions, these consequences are what they are morally responsible for. What they are causally responsible for is what they are morally responsible for without exception. Put differently, they all assume that individual agents *as such* satisfy the conditions of moral responsibility with respect to individual emissions. The question of determining individual climate duties,

therefore, boils down to the question of whether the causal contributions of the individual agents are significant. If they are, they have a duty not to perform the corresponding actions.

I call all wrongdoings for which the alignment between causal responsibility and moral responsibility holds *individual wrongdoings*. The alignment assumption, thus, defines what I introduced before as the IWT. To say that a certain wrongdoing is an individual wrongdoing is to say that the involved individuals do *as such* fulfil the conditions of moral responsibility. In holding this the participants of the debate assume that joyguzzling and a kick in the shins are the same kind of wrong in the relevant respects. That is, given that a kick in the shins or a joy ride are causally responsible for harm then we can conclude that the agent has an obligation to refrain from doing so because this harm is directly morally attributable to her. The only but inessential difference between the two is the practical difficulty of determining the actual consequences of specific instances of individual emissions in the context of anthropogenic climate change while this is rather unproblematic in the case of a kick in the shins.

3. The Alternative Analysis. Anthropogenic Climate Change as Collective Wrong

In the remainder of this chapter, I want to show that the IWT does not hold for anthropogenic climate change. The established analysis is not an adequate analysis. Contrary to what is assumed the alignment assumption does *not* hold in the case of anthropogenic climate change. The fact that the emissions of an individual agent are causally responsible for harm, whether significant or not, does not in itself warrant the interference that the individual agent is also morally responsible. It follows that individual emissions are not wrong *as such* which means that the claim that individual agents violate an individual climate duty not to cause harm to others when joyguzzling cannot be established that way as is widely assumed. Joyguzzling is not an individual but a collective wrongdoing. The duties causation-based principles such as the no-harm principle support in the context of anthropogenic climate change are collective, not individual.

The main thesis of this chapter can thus be put the following way: There are two distinct kinds of wrongdoing: Individual wrongdoings and collective wrongdoings. The established analysis is the adequate parsing of the normativity of individual wrongdoings, such as kicks in the shins. Anthropogenic climate change, however, is a collective

wrongdoing. The normativity of collective wrongdoings is different from the normativity of individual wrongdoings and calls for a different analysis. Most importantly, for collective wrongdoings, the alignment assumption does not hold. That is, individuals as such do not fulfil the conditions of moral responsibility.

In this section, I want to present a full account of the analysis of anthropogenic climate change as a collective wrongdoing. Doing so gives the reader a clear idea of the alternative I want to argue for. The analysis of anthropogenic climate change as a collective wrongdoing differs from its analysis as an individual wrongdoing first and foremost with respect to their starting points. The rest follows from there. The next two sections aim to develop a *compelling argument* for why the starting point of the alternative analysis of anthropogenic climate change as a collective wrongdoing is adequate while we must reject the established analysis as inadequate. Here, I introduce the starting point of the alternative analysis only on an intuitive basis.

In developing the alternative analysis, I only focus on the question of moral responsibility. As I said before, with respect to the question of causal responsibility we can assume for the sake of argument that FORMULA tracks the actual causal pathways of individual emissions. We can even assume that individual emissions do cause significant harm and that none of the objections to FORMULA holds. What I want to show in the following is that the alignment assumption does not hold. I do so by, firstly, setting out a model of anthropogenic climate change. I argue that the normativity of anthropogenic climate change is defined by four features. Most importantly, anthropogenic climate change is a threshold case. Even though not controversial, this nature of anthropogenic climate change is not properly accounted for by the established analysis. I then, secondly, show how properly accounting for it leads to quite a different answer to the question of moral responsibility. The no-harm principle does not directly apply to individuals but only to the group of emitters. This is why, according to the alternative analysis, the no-harm principle yields a collective and not an individual climate responsibility. We will, thirdly, see that this opens up the possibility of various different patterns of individual climate duties in which the alignment assumption does not hold. Eventually, I will clarify the substantive account of collective moral responsibilities.

Whenever we analyse the normativity of a real-world phenomenon such as anthropogenic climate change we rely on a certain model of this phenomenon. These models are the fundamentals on which we build our normative analyses. Their shape defines to a large degree the shape of the resulting analyses. Often these models are introduced without much ado. We saw, for example, one such model in the quotation from Sinnott-Armstrong's 2005 article above. In this quotation, Sinnott-Armstrong proposed that we can think of individual emissions as analogous to someone pouring tiny amounts of water into a river with already high waters due to excessive rainfall. With this analogy, he introduced key assumptions about what features of anthropogenic climate change are relevant for the normative analysis of individual emissions and which are not. We will later come back to his flooding-analogy and see that it is, in fact, very problematic.

In what follows, I want to propose a model of anthropogenic climate change. This model is what I call a basic model. A basic model displays all those features of a real-world case that cannot be added later in the analysis without misrepresenting the phenomenon from the outset. The basic model of anthropogenic climate change is defined by four uncontroversial features. Let us call real-world phenomena that display those four normatively relevant features *multi-agent threshold cases* (MTC). For an MTC

- (1) more than one agent
- (2) perform contributory actions
- (3) simultaneously and
- (4) thereby hit a threshold with $T > 1$.

The *first* feature points out the fact that anthropogenic climate change is caused by the actions of many agents. It is not the result of the actions of a single agent nor is it of natural origin. The fact that it is caused by many agents implies that their actions must contribute to the same outcome. One way to parse this *second* feature is to say that actions are contributory insofar as they add causally to hitting one and the same threshold. The *third* feature assumes that the contributing actions occur simultaneously. This is important because climate change is of course caused by past and future contributions alike, not only by simultaneous actions. I claim, however, that in the first take on anthropogenic climate change, we can omit this temporal dimension to reduce complexity.²⁶³ After analysing the

²⁶³ Sinnott-Armstrong also omits this fact in his flooding analogy. In fact, the analogy would have to be changed so as to contain some reservoir or the like if we would like to account for the cumulative effect of past and future emissions. In

normativity of simultaneous causation we can then, in the second step, add this layer of complexity to the basic model.²⁶⁴ The *fourth* and most important feature for the following discussion is the fact that anthropogenic climate change is defined by a threshold for harm. This means that the actions in question only cause harm if they cross the threshold. Below the threshold, however, the same actions do not cause any harm at all. A threshold can in principle be found at any level. The most interesting thresholds for our discussion here are those which a single agent can cross ($T=1$) or those a single agent cannot ($T>1$). For anthropogenic climate change, it is clearly the case that the threshold for harm is higher than any contribution by an individual agent ($T>1$)—indeed, considerably higher. We can indeed assume that it is virtually impossible for any individual agent to emit enough as to cross the threshold for harm that is defining of anthropogenic climate change. Even within her entire lifetime.

I contend that talk of thresholds is only the technical formulation of a point that can also be found in the debate on anthropogenic climate change and in everyday discourse. Elizabeth Cripps, for example, makes this point when she claims right at the beginning of her book and with an eye to public discourse that ‘it’s not as though any one of us causes climate change on her own’²⁶⁵. Thus, the following is claimed.

‘No single agent can bring about
anthropogenic climate change alone.’

I argue, indeed, that this claim provides another way of reading the quotation of Sinnott-Armstrong above when he points out the indirectness of the causation and claims that ‘my act of driving for fun is not a cause of global warming’²⁶⁶. Interpreted this way, the point Sinnott-Armstrong wants to make is quite different from the way Nolt and others understood it. So how do we make sense of this claim? I want to propose two ways in which we can think of the climatic system of having such a threshold. The first refers to an essential

the river example, as it is proposed by Sinnott-Armstrong, there is no room for cumulative effects. Once the (quart of) water passed the dyke, the danger of its contribution to possible damage by breaking the dyke and flooding the adjacent area has also passed. I am explicit on this only to give a sense of the limitations of models of anthropogenic climate change and thus the import of choosing an adequate one.

²⁶⁴ Within cost-benefit approaches to anthropogenic climate change there is, for example, a debate on whether we ought to discount future benefits and harms and, thus, about the role of time in our normative arguments. The basic model they start with, however, is one in which each agent and their actions are treated the same irrespective of when they live and it is only in a second, more complex setting that the questions of a differentiated treatment and, thus, the question of discounting arises.

²⁶⁵ Cripps 2013, 1.

²⁶⁶ Sinnott-Armstrong 2010 [2005], 335.

feature of the so-called carbon cycle. The carbon cycle describes the process in which massive amounts of carbon move through the various spheres of the Earth—the biosphere, the pedosphere, the geosphere, the hydrosphere, and the atmosphere. The natural sinks involved in this process are able to absorb huge amounts of additional GHGs from the atmosphere. Currently, they can take up an additional amount of CO₂ that amounts to approximately 60 per cent of global emissions.²⁶⁷

A second way to conceive of the threshold that defines the climate system refers to the famous two-degree target eventually officially agreed upon in the Paris Agreement.²⁶⁸ The driving idea behind this target is that not all temperature increases are problematic or unjustifiable. It is argued that, to the contrary, below a certain level emissions are legitimate. One may, for example, argue that this is so because until reaching this level the benefits outweigh the harms done—at least in a calculation that takes all effects into account. Only above a certain temperature do we enter the realm of problematic or, as it is often phrased, ‘dangerous’²⁶⁹ interference with the climate system. Note that for my argument here, it is not important, where the threshold is precisely situated. The only important thing is that a single agent cannot hit it. More recently, the international community indeed seems to favour a lower 1.5 °C target²⁷⁰ based on new scientific warnings about the impacts of a 2 °C warming²⁷¹.

After establishing a model of anthropogenic climate change as an MTC, we examine how properly accounting for these four uncontroversial features directly exposes the collective nature of anthropogenic climate change. We saw that the debate aims to determine whether the no-harm principle supports the direct attribution of individual climate duties. Firstly, we must investigate whether and how the no-harm principle applies to the MTC model of anthropogenic climate change just developed. We said above that the no-harm principle supports the ascription of a duty to *not* perform a certain action if performing it will harm others. Hence, an important feature of MTCs comes into play. From what we

²⁶⁷ IPCC 2014, 5; Fragnière 2016, 801.

²⁶⁸ Paris Agreement, Art. 2(1)a. It has been argued that to avoid a two-degree warming and ‘prevent dangerous anthropogenic interference with the climate system’ (UNFCCC 1992, Art. 2)—the ratified overarching goal of the UNFCCC—we must stay below a trillionth tonne of additional CO₂-emissions injected into the atmosphere. Taking all emissions since the industrialization into account we would hit this threshold at 17 October 2034 (trillionthtonne.org, accessed on 29 December 2019).

²⁶⁹ UNFCCC 1992, Art. 2.

²⁷⁰ Paris Agreement 2015, Art. 2(1)a.

²⁷¹ See the IPCC special report on 1,5 °C global warming that was published in October 2018 (IPCC 2018).

have learned about thresholds, it is clear that for MTCs it is true that as long as a given threshold is not hit, no harm is done. We also learned that for anthropogenic climate change the threshold cannot be hit by the actions of a single agent. To do so the actions of many more agents are necessary. So, given this, where does the no-harm principle leave us?

I argue that the threshold-nature of anthropogenic climate change with $T > 1$ has crucial and immediate consequences for the applicability of the no-harm principle. That is, the no-harm principle cannot be directly applied to individual agents. Instead, the obligation not to cross the threshold applies only to many individual agents *together* or, as I will also say, a group²⁷² of individual agents. The group must comprise at least enough individual agents to hit the threshold when simultaneously performing the relevant kind of actions. This is so because only the group but no individual agent *as such* can hit the threshold. Put differently, we can say that the no-harm principle supports the claim that *we* as a group of potential emitters do have the duty not to hit the threshold while no single agent as such can be said to have this duty. The obligation not to hit the threshold is, therefore, in a substantive sense *collective* and *not individual*.²⁷³

‘We ought not cross the threshold.’

This collective duty, which arises from applying the no-harm principle to a model of anthropogenic climate change as an MTC, is the starting point of the alternative analysis—one that is quite different from that of the established analysis which claimed that we can apply the no-harm principle directly at the individual level. Most importantly, this adduced argument supports the CWT.

I claimed that with respect to individual duties the main difference between the established analysis of anthropogenic climate change as an individual wrongdoing and the alternative analysis as a collective wrongdoing is that the alignment assumption does no

²⁷² I use the notion of a ‘group’ without implying anything about specific relations that were to hold between the agents that are members of the group. In the end, some agents might only appear as a ‘group’ in the eye of an observer who makes about a random selection of agents the claim that they together can hit a certain threshold.

²⁷³ This allows me to clarify the notion of individual agents. I count as ‘individual agents’ not only persons but also all other kinds of agents that are responsible for emissions but as such cannot hit the relevant threshold. It is important not to confuse the distinction I have in mind by drawing on the notions of individual agents and a group of agents from the one that is prominent from the discussion on ‘group agency’ (List/Pettit 2011). Individual agents in the sense used here can and do in fact comprise group agents in the way List and Pettit use this term.

hold.²⁷⁴ This is what I want to show next before characterising in more detail what the collective nature of the duty amounts to.

So, what is the relationship between collective and individual moral responsibility according to the alternative analysis? Firstly, it is clear that it must be individual agents that discharge this collective duty in some way or another. For it is the accumulated emissions of these individual agents that together hit the threshold and there is no additional agent over and above the individual agents that could discharge the collective moral responsibility. There must, therefore, be some way of translating the collective moral responsibility into individual moral responsibilities. With respect to anthropogenic climate change, it must be the case that the individual emitters, or at least some of them, incur duties to refrain from emitting. We do, secondly, also know that for anthropogenic climate change the threshold is considerably higher than any individual contribution and that, hence, there is a relatively huge number of agents whose emissions cannot be said to be problematic. Since their actions alone would not hit the threshold. More generally speaking, this means that there is a huge amount of permissible emissions that can be distributed among all individual agents. Not each and every agent has to stop emitting to satisfy the demands that follow from applying the no-harm principle to anthropogenic climate change according to the alternative analysis. Thirdly, it is decisive to note that the no-harm principle in itself does not contain any information on how to distribute those permissible emissions, that is, to determine who is allowed to emit and who not.

It follows from there that on the basis of the no-harm principle many different patterns of emission are conceivable. To single out one specific pattern of emissions, we would need additional information over and above the no-harm principle. It is not difficult to procure further criteria that would allow us to differentiate between the various possible patterns. Henry Shue's distinction between subsistence emissions and luxury emissions would be an option.²⁷⁵ Moreover, many other normative principles would probably serve as helpful criteria. The question of the debate on individual climate duties is, however, precisely

²⁷⁴ To be more precise: Characteristic for the established analysis is the assumption of a *strict* alignment between causal and moral responsibility. Thus, it is assumed that for all possible situations the alignment between causal and moral responsibility holds. The alternative analysis, to the contrary, is defined by what we could, thus, call an incidental alignment. This means, also here we might encounter in a given case an alignment between causal and moral responsibility, this alignment is, however, only the result of one of many possible distributions of the permissible contributory acts. Even if we should find in one case an alignment between causal and moral responsibility this would, thus, only be a co-incidence in the resulting numbers, not in the analysis.

²⁷⁵ See Shue 1992.

whether the no-harm principle *and only the no-harm principle* does support the ascription of individual climate duties. We can therefore not resort to some of these additional principles.

To see why the alignment assumption does not hold for the alternative analysis it is enough to simply assume for the sake of argument that we had determined some further information that allows us to translate the collective duty on the individual level. To see why, let us return to our illustrating example of agent A, agent B and agent C and assume that the additional information leads to the result that agent A and agent C are in the subgroup of individual agents that are allowed to emit while agent B is not allowed to do so. This pattern would allow the three to discharge their collective moral responsibility. Assume now, however, that agent B violates her obligation. Instead of abiding by the pattern she also emits. As a consequence, the threshold is crossed and significant climate harm is brought about. In such a situation it seems plausible to assert for agent A and agent B that they are causally responsible but not morally responsible for the harm brought about. It is true that they all together cross the threshold with their emissions but only agent B violates a duty when emitting.

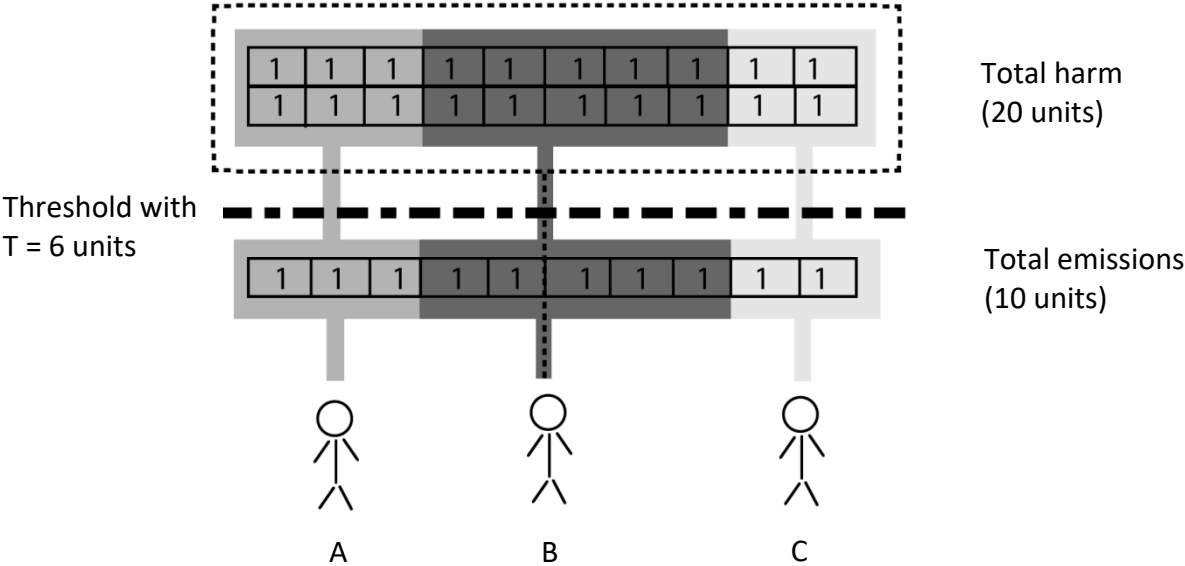


Figure 6. The areas highlighted in grey indicate the emissions of the individual agents A, B and C and the corresponding amount of harm they are causally responsible for according to FORMULA. The dotted line (light dots) indicates the amount of harm the individual agent A, B and C are morally responsible for according to the alternative analysis (given a certain distribution of individual climate duties). The other dotted line (bold dots) indicates a threshold for harm with $T = 6$ units.

This case nicely illustrates the breaking of the alignment between causal responsibility and moral responsibility. Contrary to how it appears to many in the debate, the alignment assumption does not hold when applying the no-harm principle to anthropogenic climate change. Now, one might want to challenge this analysis of the translation of the collective moral responsibility to the level of individual agents. There might indeed be good reasons to do so. One could contend, for example, that agent A and agent B do share into the responsibility for the total climate harm given that they emitted on the basis of a certain pattern without making sure, as it seems, that all agents abide to this pattern. Therefore, they are not absolved of moral responsibility for anthropogenic climate change.

This, however, does not change the more general point that the alignment assumption does not hold. That is, the fact that the no-harm principle does not apply to individual agents *as such* and, thus, only supports the ascription of a collective moral responsibility. What an adequate translation of the collective moral responsibility into individual moral responsibilities would look like is a question that equally arises. Most importantly with respect to anthropogenic climate change is, of course, the question of what the individual climate duties look like given that no such pattern has been determined. It is a particularly interesting question of how to translate the collective moral responsibilities into individual moral responsibilities under these conditions. It might lead to a very different set of individual climate duties than the established analysis assumes. Indeed, the alternative analysis makes room for Sinnott-Armstrong's claim that

'We should not think that we can do enough simply by buying fuel-efficient cars, insulating our houses, and setting up a windmill to make our own electricity. That is all wonderful, but it does little or nothing to stop global warming and also does not fulfill our real moral obligations, which are to get governments to do their job to prevent the disaster of excessive global warming.'²⁷⁶

One might want to deny that and would like to argue that even under the condition that no pattern has been determined every individual agent has a duty to reduce her personal carbon footprint. Then one has to *argue* why this should be the case and cannot simply assume—as in the analysis of anthropogenic climate change as individual wrongdoing—that it follows directly from the causal responsibility of an individual agent that she has a

²⁷⁶ Sinnott-Armstrong 2010 [2005], 344.

duty not to joyguzzle. Joyguzzling is different from kicks in the shins, where this conclusion is possible. Independently of whether such an argument can be developed, it is clear at this point that the normative status of an individual action that is part of an MTC can only be determined within a 'substantive account of collective moral responsibility'²⁷⁷.

I now shed more light on the structure of such a substantive account of collective moral responsibility as I argue applying the no-harm principle to anthropogenic climate change necessitates. To do so, I start with a quotation from Tracy Isaacs that very much captures the spirit of the account of collective moral responsibility that I want to argue for here.

'If collectives, and not just the individuals who are their members, are to be morally responsible, then we need to give an account of the moral responsibility of collectives in which it does not fully distribute among the individuals. One of the reasons that it is important to give such an account is that claims about the moral responsibility of collectives capture a different level of moral explanation from claims about the moral responsibility of individuals. This is good for moral explanation because it gives us a level of explanation that can help to articulate and address the moral dimensions of distinctly social or collective phenomena such as oppression and genocide. Additionally, an account of collective moral responsibility is necessary to help define and identify the moral responsibility of individuals.

[...] Most important is to give an account that does not limit the possibilities for collective moral responsibility to corporate and other organizational entities. Many harms that appear to result from collective action or inaction are not the consequences of the actions of organized collectives, but rather of more loosely constituted social groups, bystanders, or random gatherings. In addition, it is equally important to give an account that, even in the case of more organized collectives, does not lose sight of the roles of individuals within them.'²⁷⁸

The quotation implies three important claims regarding an account of collective moral responsibility as Tracy Isaacs envisions it. The first claim is that such a substantive account of collective moral responsibility grants certain independence to, what she calls the collective level of moral responsibility with respect to the individual level individual of moral responsibility. Assertions regarding the collective level are not reducible to simple assertions

²⁷⁷ Isaacs 2006, 60.

²⁷⁸ Isaacs 2006, 62.

regarding the individual level. She, secondly, holds that the collective level is at the same time indispensable to fully account for the responsibilities involved in certain wrongdoings—and for those on the individual level. A further important clarification is that the existence of the collective level of responsibility is not dependent on the existence of any kind of group agent. It applies equally to more organised groups as it does to groups of random gatherings.

All three features match nicely the account I have been putting forward. As we have just seen, for the substantive account of collective moral responsibility I proposed it suffices if the agents simply fulfil the features that define an MTC for the no-harm principle to yield a collective moral responsibility.²⁷⁹ No further internal organisation of the agents is needed. Organised groups of agents can be part of such an account, they would, however, play no special role. As long as they cannot cross the threshold alone they would count as just another individual agent next to other individual agents. In addition, the other two features of Tracy Isaacs' account are captured by my account of collective moral responsibility. It captures the shape and function of the two levels of responsibility as set out by the first and second feature by claiming that the normativity of anthropogenic climate change is defined by two

- (1) categorically distinct and
- (2) ordered

levels of moral responsibility. An individual level and a collective level. In what follows I give a detailed outline of what this means. The first defining feature is what distinguishes the alternative analysis from the established analysis. The alternative analysis displays not only individual moral responsibilities but also collective moral responsibilities.

The *first feature* that characterises the alternative analysis is the *categorical distinctness* of the individual level and the collective level. What is meant by this? To see this, let us start by focusing on the notion of collective level. This notion can be understood in two ways: an aggregative sense and a non-aggregative sense. In the first, aggregative sense collective moral responsibility only serves as linguistic shorthand. It has, however, no substance of its own and does not exist outside the realm of speech. That is, it exists only in

²⁷⁹ Tracy Isaacs identifies a different kind of mechanism that in her view generates a collective level of morality that I do. An important example with a view to which she develops her ideas are genocides. She defines the relevant mechanism as 'an overarching sense of purpose and joint effort' (Isaacs 2006, 64).

the eyes of an observer who adopts a comprehensive perspective and uses the notion of collective moral responsibility to refer to the sum of individual moral responsibilities her perspective comprises. The aggregative sense is compatible with the established analysis as it only posits the existence of IMRs. The second, non-aggregative sense is different. Here the notion of collective moral responsibility refers to a level of responsibility that is categorically distinct from the (sum of) individual moral responsibilities. Collective moral responsibility is, thus, not only a linguistic device but has the same substantial status as ascriptions of individual moral responsibility. Put differently, in non-aggregative use 'our duty' in such sentences as 'It is our duty not to bring about climate harm' refers to us in a non-reductive sense and not to each as individual agents. This does not preclude, as I said before, that this duty translates into individual duties.

The *second feature* characteristic of the alternative analysis is that the individual level and collective level are not only categorically distinct but stand in a *relation of order* to each other. That is, one level is super-ordinated to the other. The most important consequence of this relation is that the collective moral responsibility applies directly only once, that is, at the super-ordinated level, and only indirectly at the sub-ordinated level. The way from the super-ordinate to the sub-ordinated level is where the need of translation comes into play.²⁸⁰ That two levels are ordered means that they are not co-ordinated as would be the case if we simply *added* collective level to the individual level. Then, the two levels would exist 'next to each other' and the no-harm principle would apply twice, once at each level. This would, for example, be the case if the need for a collective level were the existence of additional collective agents over and above the individual agents. The notion of collective moral responsibility is sometimes used this way. Here the use is different. We had to introduce it not because we want to account for the responsibility of some additional, collective agents over and above the individual agents but because in MTCs the no-harm principle is not directly applicable to individual agents as such but only to many of them taken together.

Let me briefly go over the main points. So far, I have introduced two different analyses of individual emissions. Deciding for or against one of the two analyses might seem difficult

²⁸⁰ I did make use of this pair of concepts in this sense already before. Another way I have been using to refer to the same fact was to say that the no-harm principle does not apply to individual agents *as such*, that is, directly. It does apply only to the group of agents or, as I will say, individuals *as members* of such a group.

to the reader, and rightly so. I think that both can garner some intuitive appeal. Their differences result from the different underlying models of anthropogenic climate change they use and to which the no-harm principle is applied. The established analysis focuses on a single agent while viewing the emissions of the other agents as part of the background conditions under which the actions of this single agent occur. Assuming that individual emissions are structurally similar to kicks in the shins, we then only need to demonstrate that the individual actions of this agent do make a significant difference. This starting point supports a direct individual climate duty to reduce one's personal carbon footprint. Putting the intuition behind this account of anthropogenic climate change as an individual wrongdoing into a slogan, we could say that 'Each individual agent makes a morally significant difference'.

This is quite opposed to the intuition that motivates the alternative analysis. We said that the intuition behind this account of anthropogenic climate change can be captured by the slogan that 'No single agent can bring about anthropogenic climate change alone'. Taking this as a starting point, it seemed impossible to apply the no-harm principle directly to individual agents. The morally significant difference can only be made by many agents together. This resulted in quite a different analysis of the normativity of anthropogenic climate change from the established analysis. Anthropogenic climate change appeared to be a collective wrongdoing and not an individual wrongdoing, that is, joyguzzling as categorically different from kicks in the shins.

Both analyses proceed from a different starting point. With respect to these, each of the two analyses might indeed be able to gather some intuitive support. If we look where the two starting points lead us, it seems to many, however, that little speaks in favour of the alternative analysis. Its complexity and its results seem to militate against it. The need to establish two different levels of responsibility and the difficult task to translate between the two are not especially appealing. Here the established has the clear advantage of proposing a simple account of individual moral responsibility. Moreover, the established analysis offers the prospect of a direct attribution of individual climate duties to reduce greenhouse gas emissions to individual emitters. This resonates with the intuitions that most seem to have. The alternative analysis appears to let individual agents off the hook. As we have seen, it claims that the alignment between causal responsibility and moral

responsibility breaks on the individual level, which results in arguing for a very different set of duties, as Sinnott-Armstrong does. The seeming exculpation of individual emitters, however, appears to be a highly counter-intuitive, if not an appalling consequence, to many.

I am concerned that the strong individualistic intuitions that many seem to have could undermine the argument for the alternative analysis I want to present in this chapter. Given this added difficulty, my argumentative strategy is two-pronged. In the following sections, I present two arguments. The intuitive argument and the control argument. The aim of the intuitive argument is to show that the intuitive assessment of the established analysis and the alternative analysis is mistaken. The control argument demonstrates that some widely shared and deeply engrained assumptions about moral responsibility support the alternative analysis. In the next section, I develop the first step of the intuitive argument. We will see that there are MTCs in which it is the established analysis that yields obviously absurd results while the alternative analysis matches our intuitions. This observation casts doubt on the adequacy of the established analysis for MTCs more generally resulting—as I claim—in an ‘intuitive stalemate’ between the established analysis and the alternative analysis. Both analyses match our intuitions in some cases but miss them in others. I hope that this ‘intuitive stalemate’ offers argumentative space for the control argument, which I will then present in the following section. Developing this argument, however, not only shows why the alternative analysis is the adequate analysis for all MTCs, but it also allows us to take a second and final step in rejecting the intuitive plausibility of the established analysis. We will see that the intuitive appeal of the established analysis resides on—what I call—a *naturalistic bias*.

4. The Intuitive Stalemate. A Foray into Parfit’s Notion of Harming Together

In this section, I want to take the first of two steps in showing that the intuitive assessment of the established analysis and the alternative analysis is mistaken. To do so, I will leave aside for a moment the discussion of anthropogenic climate change and focus on a different example: a famous murder case of an even more famous philosopher. Doing so will produce quite a different intuitive assessment of both analyses from the discussion of anthropogenic climate change. While the established analysis yields the absurd result of exculpating the murderers, it is the alternative analysis that is capable of reproducing our intuitions about who is to be held accountable and who is not. Now the established analysis

clearly lets individual agents—the murderers—off the hook. I take this result to produce an ‘intuitive stalemate’ between the established analysis and the alternative analysis: Both analyses can instance a case where their results match our intuitions better than those of the other analysis. Given this, I hope that also those readers who share a sceptical view of the alternative analysis will then be prepared to further investigate the mechanics of MTCs and carefully consider the argument I want to propose in favour of the alternative analysis, that is, the control argument.

The murder case is presented in the seminal and classic book ‘Reasons and Persons’ by Derek Parfit in 1984.²⁸¹ In the third chapter of this book on consequentialist ethical theory, he discusses five rationales he takes to be as many ‘mistakes in moral mathematics’²⁸² that occur in ‘Common-Sense Morality’²⁸³. He recites a familiar fact as a reason for the fallacious working of our everyday reasoning. He points out that the conditions of agency have profoundly changed over the last centuries. That is, we no longer live in small communities and our actions now yield effects in complex and intertwined ways that can affect people across the globe and for many generations to come.²⁸⁴ Thus, his discussion can be read as an early attempt to comprehend an altered *conditio humana* in what has recently been dubbed the Anthropocene.²⁸⁵ Since anthropogenic climate change—as I have argued before—can be seen as one of the major expressions of this new ‘age of man’ and the changed conditions of agency, it comes as no surprise that Parfit’s discussion is of major interest to us.

I begin this section by reconstructing in detail Parfit’s discussion of the murder case, which Parfit introduces to illustrate the second of the five mistakes in moral mathematics. Parfit’s discussion of this mistake and his solution to it are, however, somewhat sketchy and need clarification. Parfit introduces the murder case as an example of an overdetermination case. I, therefore, start by proposing a definition for overdetermination cases and argue that the structure of these cases is adequately captured as MTCs with $T=1$ ²⁸⁶. Parfit

²⁸¹ Parfit 1984.

²⁸² Parfit 1984, 67.

²⁸³ Parfit 1984, 85.

²⁸⁴ Parfit 1984, 85f.

²⁸⁵ For a good introduction into the various dimensions of the Anthropocene, see Ellis 2018. Also see the introduction to this book. I argue that one way to read this book is to understand it as the attempt to spell out the idea that the Anthropocene is to be understood not only a new geological age of the Earth but a denomination of a new kind of agential circumstances that brought new kinds of wrongs into the world. The idea of collective wrongdoings can be seen as one such wrong.

²⁸⁶ To avoid confusion. I do use the notion MTCs from now onwards as a more general term referring to cases with $T>1$ and $T=1$ alike. Not only to cases with $T>1$ as it could have seemed from the way I introduced it above.

then rejects what he regards as the standard analysis of the murder case by showing that it relies on a mistake. That is, '[t]he Second Mistake'²⁸⁷ in moral mathematics. I then, secondly, reconstruct his argument against the standard analysis. We will see that the standard analysis is identical to the established analysis. The first two steps of Parfit's discussion can thus be understood as a rejection of the established analysis for MTCs with $T=1$.²⁸⁸ Parfit then proposes a different analysis. He argues that we should analyse this case as one where two agents 'together harm'²⁸⁹ the murder victim. In the third step, I go on to show that in introducing this additional level of responsibility²⁹⁰ Parfit was on the right track, even though this proposal engendered quite some controversy and most people have been sceptic about it.²⁹¹ What is right about their scepticism is, however, that he did not succeed in introducing it convincingly. In the terminology introduced above, we can say that he saw the need to introduce a categorically different collective level, but he overlooked the fact that the resulting two levels of responsibility also *need to be ordered*. Not ordering them results in an outcome equally absurd as the one the established analysis yielded, namely, a doubling of responsibilities. I, fourthly, show that the alternative analysis can avoid both absurdities and account for our intuitions regarding the murder case by adding a categorically distinct *and* super-ordinated collective level of responsibility.

The discussion of '[t]he Second Mistake'²⁹² thus not only serves as a first step in rejecting the supposed intuitive plausibility of the established analysis. Additionally, it allows me to show that Parfit not only saw a crucial problem with the established analysis but also was looking for a solution in a similar direction as I propose with the alternative analysis. Parfit solution fails, however, because he has been looking for the right solution for the wrong reasons and, thus, made a mistake of his own: instead of fully rejecting the established analysis, he left it operative and simply added some further claims.²⁹³ What I

²⁸⁷ Parfit 1984, 70.

²⁸⁸ Parfit claims that to make the mistake implicit in the established analysis is 'natural' (Parfit 1984, 70). I take this to be another way of expressing the *intuitive appeal* of the established analysis. An interesting overlap between Parfit's and my discussion of the established analysis. Parfit does not explain this where this tendency to commit the mistake that leads to the established analysis comes from. I think it can be explained. In the next section, I present an explanation of the origin of the intuitive appeal of the established analysis.

²⁸⁹ Parfit 1984, 71.

²⁹⁰ It does sound at occasions as if he would think that this implies also an additional causal level. I am not sure, however, if this assumption is helpful. Therefore, I focus only on the additional level of responsibility.

²⁹¹ See, for example, Jackson 1997 and Norcross 2005.

²⁹² Parfit 1984, 70.

²⁹³ I frame the discussion from the beginning in the terminology introduced in this chapter. This will help to avoid confusion that could be created when additionally using Parfit's own terminology.

propose in the following can, thus, also be understood as a fresh reconstruction and defence of Parfit's much-debated notion of 'harming together'.

Parfit explicitly introduces the murder case as an instance of an overdetermination case. He probably expects those cases to exhibit one of the new characteristics we more and more often will encounter in the Anthropocene. This seems indeed to be likely, as the causal chains not only multiply with each additional Earth dweller but the outcomes of the individual actions span ever more widely in time and space. He does, however, not clarify what he thinks the defining features of overdetermination cases are. Therefore, I want to start by putting forward an argument showing that overdetermination cases can be understood as MTCs with $T=1$.

To see why overdetermination cases can be defined as this specific kind of MTCs, let us examine the example of the murder case Parfit uses to exemplify this kind of cases. Parfit introduces the murder case under the title of 'Case One'. I will continue, however, to call it simply the murder case.²⁹⁴

*'Case One. X and Y simultaneously shoot and kill me. Either shot, by itself, would have killed.'*²⁹⁵

The setting of the example is rather simple. We have two assassins who simultaneously shoot Parfit. *Both* of their shots hit Parfit fatally and he dies. I contend that overdetermination cases of this type can be defined by four features. They are cases in which

- (1) more than one agent
- (2) perform the same type of action
- (3) simultaneously and
- (4) thereby hit a threshold with $T=1$.

I consider the first three features to be uncontroversial. To be an overdetermination case, there must, by definition, be more than one cause for the relevant outcome while the type

²⁹⁴ It is, of course, with due diligence that Parfit chooses the name 'Case One' and not 'murder case'. He wants to avoid suggesting from the beginning a certain interpretation of the case. Moreover, there are indeed authors who claim that Case One is not a murder case (see, for example, Jackson 1997). This view, as we will see, is, however, extremely counter-intuitive. Since I do not think that such a revisionist position can eventually be successful and in order not to divert the argument of this section, I do not engage further with this view and assume that any plausible analysis of the case has to be capable of reproducing the intuition that Case One is a murder case. Thus, there is no need to avoid 'biased' titles.

²⁹⁵ Parfit 1984, 70.

of overdetermination case we are interested in here is, in addition, and again by definition, characterised by the fact that those causes are agents through their actions and not natural causes that contribute to the same outcome. This is captured by the first and the second feature. The murder case is also explicitly characterised by the fact that the agents cause the respective outcome simultaneously. That is, there is no way of singling out the one or the other agent as the primary cause in a temporal sense. This is the third feature. Indeed, Parfit then discusses cases in which the relevant actions do not occur at the same time and argues that those cases can be analysed on the basis of the analysis of the murder case. This is, however, controversial. As it is not relevant for the discussion here whether this claim holds, I will not discuss these cases further.²⁹⁶ So far, the definition of overdetermination cases is, of course, identical to the definition presented for MTCs above. Let us now examine the fourth defining feature. I argue that overdetermination cases can be defined as MTCs with $T=1$. To see that the four features do in fact adequately express the nature of overdetermination cases, let us examine the specific behaviour of overdetermination cases. The behaviour of an overdetermined outcome is characterised by the following two aspects: Firstly, the simultaneous actions cause an outcome X and only this outcome, and, secondly, each of the simultaneous actions alone would have been sufficient to bring about the outcome X . An adequate model of overdetermination cases must be able to reproduce this kind of behaviour.

I contend that an MTC that is defined by a single threshold with $T=1$ does indeed perfectly capture this behaviour. It is the very meaning of an MTC with $T=1$ that the act of any single agent would be sufficient to hit the threshold and cause harm, while all additional acts have no further consequences once the threshold is reached. This perfectly reproduces the behaviour of an overdetermination case. Parfit's discussion of the murder case can, thus, be understood as a discussion of MTCs with $T=1$. According to the analysis presented here, anthropogenic climate change and the murder case share important features. They are both MTCs while they only differ with respect to their respective levels of the threshold. For anthropogenic climate change, the threshold could only be hit by the

²⁹⁶ Alastair Norcross calls those cases 'cases of preemption' (Norcross 2005, 152). Even though it is not important for the discussion here whether Parfit is right in assuming that his analysis is also valid for cases of pre-emption, it is interesting to note that most criticism of Parfit's analysis of the murder case and his solution—the introduction of the additional level of 'harming together'—focuses not on the murder case but on the cases of preemption (see, for example, Jackson 1997, 45–49). It might thus be worth considering whether Parfit was in fact wrong about the latter cases but not about the murder case. Put differently, the third condition demanding simultaneity of the contributing actions could indeed be a necessary one.

actions of more than one agent ($T > 1$), in the murder case, the action of a single agent was sufficient to hit the threshold ($T = 1$). I will say more about the import of this difference below.

After giving an account of the mechanics of overdetermination cases, let us now turn to Parfit's discussion of the murder case. Parfit starts with a discussion of the standard analysis that is usually applied to this kind of cases. He then puts forward a *reduction-ad-absurdum* argument to show that the standard analysis of the murder case runs into serious difficulties and, eventually, has to be abandoned. In this subsection, I want to reconstruct Parfit's rejection of the standard analysis. To do so, I start by developing a definition of the standard analysis. We will see that the standard analysis is identical to EA. Therefore, Parfit's argument can also be seen as an argument against the applicability of the established analysis to overdetermination cases or, as we can now say, MTCs with $T = 1$. I end this subsection by reconstructing this argument.

We saw above that the established analysis as well as the alternative analysis are defined by their answers to two questions: the question of causal responsibility and the question of moral responsibility.²⁹⁷ To substantiate my claim that the standard analysis is equal to the established analysis, I thus have to show that the standard analysis gives the same answers to the two questions as the established analysis. Let us start with the question of causal responsibility. Right after introducing the murder case such as quoted above Parfit proceeds as follows.

'Neither agent A nor agent B acts in a way whose consequence is that an extra person dies. Given what the other does, it is true of each that, if he had not shot me, this would have made no difference.'²⁹⁸

Parfit thus claims that the actions of agent A and agent B are inconsequential in the relevant respect, that is, they are not causing him to die. Parfit arrives at this conclusion based on the assumption that the respective causal responsibilities of agent A and agent B are to be determined by looking at the differences their actions make when considered in isolation and while holding all other circumstances fixed—including the behaviour of the other agent

²⁹⁷ See *Chapter Two*, Sec. 2.

²⁹⁸ Parfit 1984, 70. To avoid confusion, I substituted the names of the two agents in the example here and in the following quotations for the ones I am using over the course of the entire book, that is, agent A and agent B. The argumentative structure is not affected by this.

whose action is not being assessed. This is, however, the same criterion for causal responsibility that the established analysis is employing. We called the general version of it the difference-making criterion²⁹⁹. In the case of anthropogenic climate change, it was, however, not that simple to identify the differences individual actions make straight away so the proponents of the established analysis had to come up with a more specific method that would allow them to do so. This specific method was FORMULA. This does, however, not change the fact that FORMULA is essentially a version of the difference-making criterion. We can, thus, conclude at this point that the established analysis and the standard analysis do indeed employ the same method for answering the question of causal responsibility.

After determining the causal inefficacy of the actions of agent A and agent B with the help of the difference-making criterion, Parfit immediately concludes that

[a]ccording to (C6) neither agent A nor agent B harms me'.³⁰⁰

Before we can analyse this conclusion in more detail, we must understand what principle (C6) is about.³⁰¹ Parfit introduces (C6) in the discussion of the first mistake in moral mathematics on the preceding pages. He defines the principle (C6) as holding that

[a]n act harms someone if its consequence is that [given that all other circumstances are held fixed] someone is harmed more'.³⁰²

This analysis of harm is, as Alastair Norcross rightfully observes, the '[s]tandard consequentialist approach to harm'³⁰³. Many aspects of this analysis merit a detailed discussion.³⁰⁴ For what interests us here, it is most important to see that (C6) implies an answer to the second question, that is, the question of moral responsibility. Why is this so? It implies an answer to it because holding (C6) has to be understood as holding that an individual agent

²⁹⁹ See *Chapter Two*, Sec. 2.

³⁰⁰ Parfit 1984, 70.

³⁰¹ Parfit introduces over the course of the book various principles. He identifies these principles for the sake of easier reference with the letter C, as they are supposed to define consequentialism, and a number, starting with 1.

³⁰² Parfit 1984, 69. Note, that I did not cite the entire formulation of (C6). (C6) also has something to say on benefits and comprises a version of a maximising principle. Those parts are, however, not important for the discussion here.

³⁰³ Norcross 2005, 149.

³⁰⁴ Frank Jackson, for example, rightfully points out that this analysis of harming forestalls one possible and *prima facie* attractive avenue for consequentialists to answer the question of what it is that makes the individual actions of agent A and agent B wrong. Thus, the claim that their actions do have a bad effect because they causally contribute to a bad outcome. This avenue is forestalled because the fact of being causally implicated is neither sufficient nor necessary to harm someone. To harm someone, my action must make a difference. For this assessment, see Jackson 1997, 42f. This is, of course, the idea that underpins the argument from inconsequentialism.

‘harms someone’³⁰⁵, that is, an individual agent is morally responsible for some harm if the effect of her action is that someone is ‘harmed more’³⁰⁶. If the difference her action makes is that more harm is brought about. The two uses of the word ‘harm’ in the quotation above are thus different. While the first use of ‘harm’ ascribes moral responsibility to an individual, the second use of ‘harm’ in the phrase ‘harmed more’³⁰⁷ refers to the descriptive fact of more harm being inflicted on someone as a consequence of the respective action. The principle (C6), thus, contends that individual agents are morally responsible for all those harmful effects they are causally responsible for.³⁰⁸ This, however, is exactly what the alignment assumption was claiming. Hence, we can conclude at this point that the standard analysis and the established analysis are indeed identical. They give the same answers to the questions of causal and moral responsibility. They are both analyses of the normativity of the actions at hand as individual wrongdoings.

After having shown that the standard analysis and the established analysis are identical, let us now see why Parfit thinks that applying the established analysis in the murder case is a mistake. His rejection is quick and straightforward.

‘Since neither agent A nor agent B harms me, we are forced to the absurd conclusion that these two murderers do not act wrongly.’³⁰⁹

He contends that applying the established analysis to the murder case compels us to draw an absurd conclusion. That is, that neither agent A nor agent B harms him when actually murdering him. After the preceding discussion, it is not difficult to determine how he arrives at this conclusion. The established analysis produces this result because the respective actions of agent A and agent B are inconsequential. As we saw before, applying the difference-making criterion here demonstrates that their individual actions make no difference. No one is harmed more by the actions of either agent A or agent B and, thus, neither

³⁰⁵ Parfit 1984, 69.

³⁰⁶ Parfit 1984, 69.

³⁰⁷ Parfit 1984, 69.

³⁰⁸ Let me briefly address a seeming tension. After introducing (C6) Parfit observes that his analysis of harm revises our ordinary use of the notion of harm in at least in two ways. It is the first revision that could seem problematic. Parfit claims that (C6) implies a weaker notion of causation with respect to harm than we ordinarily employ. In ordinary usage causation implies, according to Parfit, that ‘some act of mine was the chief or immediate cause’ (Parfit 1984, 69) of the harm. The concern could now be that my usage of causal responsibility refers to causation in the ordinary, stronger sense. I think, however, that this is not the case. The revisionary and weaker notion of causation is enough for what I want to argue. There is no need to demand the stronger form of causation for my argument to work—as long as causation of some degree is the criterion of attributing MR.

³⁰⁹ Parfit 1984, 71.

agent A nor agent B harm anyone through their actions. Agent A and agent B are not causally responsible and, therefore, also not morally responsible for Parfit's death.

Parfit takes this result to support a *reduction-ad-absurdum* argument, and rightly so.³¹⁰ Here, then, a subsequent question arises: which of the assumptions, that is, which of the two answers should we reject or modify to avoid the absurd conclusion? Before we examine the answer Parfit proposes, we can already now observe that this result sheds serious doubt on whether the established analysis is an adequate analysis for MTCs. As just observed, the established analysis yields very counter-intuitive results for MTCs with $T=1$. Indeed, it is now the established analysis that lets individual agents, even murderers off the hook. It can be objected, of course, that anthropogenic climate change is a different kind of MTC than the murder case. While anthropogenic climate change is an MTC with $T>1$, the murder case is an MTC with $T=1$. So, one could champion the real possibility of the established analysis being the adequate analysis for the MTCs with $T>1$ and only with $T>1$. Thus, it would be immune against any argument based on the absurd conclusion it arrived at in the murder case without having to reject it as an adequate analysis for anthropogenic climate change. This is, of course, true. It could, however, also be true that the established analysis is inadequate for all MTCs. As long as we do not know the exact reason for the absurd conclusion the established analysis produces in the murder case, I think that we should at least not exclude the possibility that it is for a feature that characterises MTCs in general and not only MTCs with $T=1$. There is such a deeper reason why the established analysis is mistaken for all MTCs, which I demonstrate in the next section.

Let us return to question that the absurd conclusion we were forced to draw raises. That is, the question of which of the premises we should refute to avoid this absurdity. Parfit considers two possibilities. The first option he considers is rejecting (C6) or, as we can also say in the terminology introduced before, the alignment assumption. That is, the answer to the question of moral responsibility. Parfit thinks that this is not a good idea and proposes to take another route. He argues that we should rather reject an assumption that so

³¹⁰ Frank Jackson argues that consequentialists should rather accept the claim that neither agent A nor agent B, nor both together, are acting wrongly and tries to argue away the 'air' of absurdity that surrounds this claim (Jackson 1997, 42–53). I think that his proposal rests on the mistaken assumption that we cannot develop a convincing analysis along the lines of Parfit's notion of harming together. He puts forward arguments to this effect, however, only focusing on Case Two and Case Three. If I am correct, then such an analysis might indeed not hold for those two cases but is adequate for Case One. Jackson thus fails to develop an independent argument that holds for the murder case (Case One).

far has remained implicit. Holding this assumption (implicitly or explicitly) is what he calls '[t]he Second Mistake'³¹¹. The rejection of this assumption leads Parfit to develop his solution to the murder case. Let us start with clarifying '[t]he Second Mistake'³¹². Parfit introduces it as follows.

'It is natural to assume

(The Second Mistake) If some act is right or wrong *because of its effects*, the only relevant effects are the effects of this particular act.'³¹³

That is, he claims that when assessing the normativity of a given case on the basis of the no-harm principle³¹⁴ then people have the fallacious tendency to think that the only effects that must be assessed are those that individual acts bring about considered in isolation. That is, in the murder case, the shooting of agent A *or* the shooting of agent B. However, what effects other than those should we consider, according to Parfit? What Parfit has in mind becomes clearer when we examine what he suggests is overlooked by someone who makes '[t]he Second Mistake'³¹⁵.

He asserts that what is eclipsed when committing '[t]he Second Mistake'³¹⁶ is another, more comprehensive perspective on the effects actions of individual agents can have. He introduces this additional perspective as (part of)³¹⁷ the principle (C7).

'(C7) Even if an act harms no one, this act may be wrong because it is one of a set of acts that *together* harm other people.'³¹⁸

Parfit proposes that even if, considered in isolation, particular acts are inconsequential because they make no difference to the overall outcome and, therefore, do no harm

³¹¹ Parfit 1984, 70.

³¹² Parfit 1984, 70.

³¹³ Parfit 1984, 70; emphasis in the original.

³¹⁴ My interpretation of this quotation of Parfit might seem problematic as a main difference between his discussion and the debate on individual climate duties is that he operates explicitly on the 'principle of beneficence' (Parfit 1984, 69) and, thus, not the no-harm principle. If we understand the difference between the two principles as the difference between what a virtuous and a non-virtuous agent should do this is a valid objection. Since I am primarily interested in developing the alternative analysis, however, I am not so much concerned with whether my interpretation of Parfit is adequate. This does not mean that I think it is inadequate. It would, however, lead to far away from the main argumentative aim of this chapter to show that my interpretation is adequate, so I will set aside this question here. Moreover, irrespective of possible differences in the moral principles applied, Parfit does entertain ideas very similar to what I am arguing for. These and the differences in his and my analysis allow me to make some important points.

³¹⁵ Parfit 1984, 70.

³¹⁶ Parfit 1984, 70.

³¹⁷ Here, just as before, I am only quoting those parts of the principle that focus on harm, not the ones that focus on benefits. The claims for benefits are simply the parallel formulations where 'harm' is substituted for 'benefits' and so on.

³¹⁸ Parfit 1984, 70; emphasis in the original.

according to the established analysis, the very same acts can harm someone in a more comprehensive perspective. That is, we do not only consider the consequences of individual acts in isolation but also consider what the various individual acts bring about *together*. The comprehensive perspective on the effects that individual actions can have in conjunction with the actions of other individual agents, Parfit contends, opens up a possibility to hold agent A and agent B morally responsible for murdering him even though none of their actions taken in isolation can be said to make any difference in the relevant respect. That is, he claims that ‘agent A and agent B act wrongly because *they together* harm me. They together kill me.’³¹⁹ To use the terminology I introduced in this chapter, he holds that agent A and agent B are together morally responsible for his death because they are together causally responsible for it.

Even though this proposal helps to elude the absurd conclusion, it raises questions of its own. Most importantly, the question of how to relate this comprehensive perspective to the more restricted, individual perspective that considers the same acts in isolation? We have seen above that the individual perspective, such as implicit in the established analysis, leads to an absurd conclusion in the murder case. I also mentioned, however, that Parfit does not want to reject the established analysis or its crucial feature for our discussion, that is, (C6)³²⁰. He explicitly mentions this possibility.

‘Some would take this to show that we should reject (C6). There is a better alternative.

We should add (C7) [...].’³²¹

Instead of rejecting the established analysis, Parfit proposes to modify it. He suggests that we should leave the established analysis operative and simply ‘add’³²² to it claim (C7). The analysis Parfit proposes for the murder case is, thus, a combination of the established analysis and the additional principle (C7). Since the established analysis is still an essential part of his solution, I call this the *modified established analysis*.³²³

³¹⁹ Parfit 1984, 70.

³²⁰ (C6) is the crucial part because it is this principle that implies the assumption that the murder case is to be analysed as an individual wrongdoing. It is this assumption I challenge. With respect to the answer to the question of causal responsibility it is assumed, however, as I have mentioned many times, that the difference-making criterion (or FORMULA) is adequate.

³²¹ Parfit 1984, 70.

³²² Parfit 1984, 70.

³²³ For another more explicit version of the modified established analysis that is developed in the context of the debate on individual climate duties, see: Killoren/Williams 2012. Their proposal ultimately fails, among others, for the very same reason as Parfit’s.

At first glance, the modified established analysis might seem a viable solution. Parfit's discussion of his solution is rather brief and he does not say much on how to understand the idea of being together morally responsible. Here, as so often, the devil is in the detail. I want to show in this now that Parfit's solution is, eventually, untenable. Though it can avoid the absurdity applying the established analysis to the murder case gives rise to, it does so only for the price of yielding absurd results of its own. Notwithstanding that, I think that Parfit was on the right track even though he did not get it quite right in the end. I try to show that the alternative analysis is, indeed, able to avoid the absurd conclusion of both analyses, the established analysis as well as the modified version of it while rescuing the idea that stands behind Parfit's account of 'harming together'.

That is, I do think that Parfit was right in pointing out that the established analysis fails because it commits, what he called, '[t]he Second Mistake'³²⁴. It misses out an important aspect of the normativity of the murder case because it does not boast a comprehensive perspective. 'The Second Mistake'³²⁵ is indeed a mistake. I take it that the idea that Parfit had in mind when proposing the notion of being together morally responsible is the same idea that motivated Tracy Isaacs 'substantive account of collective moral responsibility'³²⁶. It is, therefore, illuminating for any attempt to develop a convincing account of this core idea to understand, in detail, the constructional flaw in Parfit's rendering of it. It demonstrates that the complexity of the proposed account of collective moral responsibility, that is, the alternative analysis, which was raised as one drawback of this analysis as compared to the established analysis—is indeed necessary. That is, if we want to avoid the absurd results the modified version of the established analysis runs into. However, let us proceed systematically.

As I said before, Parfit's account of his solution is somewhat sketchy. Most importantly for us here, we said that he did not say how the comprehensive perspective of being together morally responsible relates to the restricted, individual perspective of individual moral responsibility. There are two possible ways to understand the relation between the two perspectives and, thus, two ways to understand Parfit's solution. The notion of being together morally responsible can either be understood as

³²⁴ Parfit 1984, 70.

³²⁵ Parfit 1984, 70.

³²⁶ Isaacs 2006, 62.

- (1) (Version A) *having* implications for the individual moral responsibility of agent A and agent B, that is, being together morally responsible would translate on the individual level, or
- (2) (Version B) having *no* implications for the individual moral responsibility of agent A and agent B, that is, being together morally responsible does not translate on the individual level.

In the case of version A, we can say that the two levels of moral responsibility—the established analysis and (C7)—are related and co-ordinated. That is, neither of the two levels is super-ordinated to the other. In the case of version B, both levels of moral responsibility are un-related. They co-exist entirely independent of each other. I start with a discussion of version A. We will then see that version B fails for the same reasons as does version A. It even has an additional difficulty.

Parfit never set out in detail what results the modified established analysis yields. So, let us start by applying the modified established analysis to the murder case. This will allow us to see the absurdity of Parfit’s solution. Applying the modified established analysis to the murder case gives us the following results.

	Individual Perspective (EA)	Comprehensive Perspective (C7)
Causal Responsibility	No	Yes
Moral Responsibility	No	Yes

Table 11. Causal responsibility and moral responsibility in the murder case according to the modified established analysis.

To see why we receive this result, we must remember that Parfit proposes with the modified established analysis a combination of two methods to determine the moral responsibility of agent A and agent B. The two methods are the established analysis and (C7). We have already seen above that the established analysis gives the result that neither agent A

nor agent B are individually morally responsible for killing Parfit. After all, this was the fact that prompted Parfit to look for a different analysis. The reason for this result was that according to the established analysis the outcome of individual actions agents are causally responsible for has to be determined via the difference-making criterion, that is, by determining which effects each action would have viewed in isolation and given that all other circumstances are hold fix. The agent is then individually morally responsible for the effects thus determined. In the murder case the isolated actions of agent A and agent B are, however, inconsequential. That is, they have no consequences at all. Thus, they cannot bear any individual moral responsibility for Parfit's death. The individual perspective of the modified established analysis thus yields a 'no' with respect to the individual causal and individual moral responsibility of agent A and agent B.

However, according to Parfit's solution, this is not the only relevant perspective. There is also a more comprehensive perspective on the effects of individual acts. The effects considered by the established analysis are not the only effects that matter. To think so would be a mistake, namely '[t]he Second Mistake'³²⁷. An individual agent is also to be held morally responsible for those effects that her actions yield together with the acts of other individual agents, that is, for those effects individual agents cause together, for which they are together causally responsible. This is what (C7) claims. The next thing to observe is that it is indeed the case that if both agent A and agent B had acted differently, Parfit would still be alive. Parfit concludes from this observation that agent A and agent B are together morally responsible for his death.

'They together harm me because, if *both* had acted differently, I would not have died.'

(Parfit 1984, 71)

The conclusion draws on the two principles introduced before. The observation that he would still be alive if both had acted differently allows—together with the difference-making criterion—to infer that agent A and agent B are together causally responsible for the death of Parfit. Being together causally responsible—jointly with (C6)—supports the claim that they are also to be held together morally responsible for killing Parfit. The comprehensive perspective of (C7) thus yields a 'yes' with respect to agent A and B regarding the question of being together causally and together morally responsible.

³²⁷ Parfit 1984, 70.

Parfit did not say more on how to understand the claim that agent A and agent B are together morally responsible for his death. I, therefore, proposed two possible interpretations. According to version A of his solution to the absurd outcomes the standard analysis yields, being together morally responsible must be understood as having implications for the individual moral responsibility of both agent A and agent B. Indeed, it seems to suggest itself that the implication of both agent A and agent B being together morally responsible for killing Parfit would translate into each of them being—at least to some degree—individually morally responsible for killing Parfit. What else should the implication of holding both together morally responsible be?³²⁸

To sum up: We just saw that applying version A of the modified established analysis to the murder case gives us two assessments of agent A's and agent B's individual moral responsibility because we must use independent methods to determine their respective individual moral responsibilities. We have discussed at length that the established analysis gives us the absurd result that both of them are not responsible for killing Parfit. We have now seen that Parfit's additional principle (C7) gives us the opposite result and allows us to hold both together morally responsible for Parfit's death, such as intended.

At a second glance, this result is, however, not as straightforwardly a solution to the absurd outcome as it might appear at first. On the contrary, I contend that it has its own share of absurdity. Why is this so? The reason for this is that at closer inspection it becomes clear that Parfit's solution gives us two contradicting assessments of the individual moral responsibilities of agent A and agent B. The individual agents are at the same time not responsible for his death—according to the established analysis—and (at least to some degree) responsible for his death—according to (C7). This, however, is absurd. Either they are or they are not individually morally responsible for the death of Parfit, but they cannot be both at the same time. We cannot at the same time and in the same respect ascribe and deny a specific feature to something or someone. A ball cannot be red and not-red. This would be absurd.

Why does Parfit's solution, version A of the modified established analysis, lead to this absurd result? What is the mistake Parfit commits while at the same time choosing the

³²⁸ One cannot exclude the possibility that the fact that they are together morally responsible translates only into the individual moral responsibility of one of the agents. The very notion of being together morally responsible, however, suggests that Parfit does think that it must translate into both agents having some share of moral responsibility. Whatever the answer is, the problem I raise here does not depend on this specific point—as will become clear.

right option when rejecting ‘the Second Mistake’³²⁹? I argue that the origin of the absurd result can be found in the fact that Parfit simply ‘adds’—and as we have seen: explicitly so—the comprehensive perspective or (C7) to the individual perspective of the established analysis. That is why he has two perspectives that both claim validity at the same time and in the same respect. As a consequence, the no-harm principle is applied *two* times to *one* situation. That is, one time within the individual and another time within the collective perspective. Thus, the application of version A of the modified established analysis to the murder case necessarily results in two assessments of the individual moral responsibility of each agent. That this is absurd becomes especially apparent if those two assessments are contradictory such as in the murder case. The problem, however, is the *doubling of responsibilities* as such. That is, the fact that we have *two* independent assessments of the individual moral responsibility for only one harmful outcome that both claim validity at the same time and in the same respect. This is the constructional flaw of Parfit’s solution.

That it is the problematic doubling of assessments of moral responsibilities also explains why the other interpretation, that is, version B of the modified established analysis is untenable and rather aggravates the problem. I contend that it would not only lead to two assessments—and thus the same problematic doubling—for the same reasons as does version A but it would, in addition, not be clear what the added, comprehensive perspective amounts to. Because it would claim that being together morally responsible cannot be translated into individual moral responsibilities. However, what could it possibly mean that agent A and agent B are together morally responsible while at the same time insisting that this has no implications for the individual moral responsibility of both? I am afraid that such as claim is, in the end, unintelligible.

We can, thus, conclude at this point of the discussion that Parfit’s solution to the absurd result that the standard analysis (= established analysis) encounters when applied to MTCs with T=1 incurs serious difficulties of its own. While his solution can avoid the absurd conclusion that the established analysis is forced to draw, we are in no better position. That is, the modified established analysis produces equally absurd results. One might now wonder why Parfit overlooked this apparent difficulty of his solution. I am not sure, but I want to offer at least one possible explanation before turning to what I regard as a

³²⁹ Parfit 1984, 70.

solution to avoid those absurdities, namely, the alternative analysis I introduced in the previous section.

Perhaps Parfit did not see the absurdity because he did not distinguish sufficiently between 'not responsible' (-1) and 'neither responsible nor not responsible' (0) where the latter would mean that the no-harm principle is, for whatever reason, not applicable. Overlooking this ambiguity makes it possible to claim, firstly, that the result of the established analysis is counterintuitive (what would then rely on the 'not responsible' interpretation of the result of established analysis). Secondly, we simply need to add another level of responsibility while leaving the established analysis in place (which would rely on the 'neither responsible nor not responsible' interpretation of the result of the established analysis). Otherwise, the doubling would have been obvious. Had Parfit been clear about this ambiguity, he would have seen that he could not leave the established analysis in place and simply add (C7), because this necessarily leads to the doubling of ascriptions of responsibilities.

What have we seen so far? We saw that neither the established nor the modified version of the established analysis Parfit proposes deliver a defensible analysis of the normativity of the murder case. Both analyses fail because they eventually yield absurd conclusions, in other words, conclusions that are in tension with fundamental convictions such as the law of noncontradiction. I now want to show that the alternative analysis is a defensible and convincing analysis of the murder case. It is defensible because it provides us with a rendering of the relation between the individual and the comprehensive perspective that can avoid both absurd conclusions. It does so by putting the two levels in an *ordered* relation. Thereby it can avoid the constructional flaw of the modified established analysis because the no-harm principle is only applied once resulting in a single assessment of the moral responsibility of agent A and agent B. The alternative analysis at the same time lives up to the need of broadening the rather narrow focus of the established analysis on individual acts such as denounced by Parfit as '[t]he Second Mistake'³³⁰ and which indeed seems to be problematic. Parfit's mistake, therefore, helps us to understand why the complexity of the alternative analysis—that is, the need for two ordered levels of moral responsibility—is indeed necessary. Instead of speaking against it, as it seemed, it is the very complexity of

³³⁰ Parfit 1984, 70.

the alternative analysis that allows us to avoid the absurd outcome of the established analysis as well as Parfit's modified version of it.

I now want to show that the alternative analysis is not only defensible but yields a convincing analysis as it can reproduce our intuitions about the individual moral responsibility of agent A and agent B in the murder case. However, what are our intuitions about the moral responsibility of agent A and agent B in the murder case? So far we have only asserted the negative fact that the result the established analysis produces—that neither agent A nor agent B have any moral responsibility for Parfit's death—is absurd. We have not said much, however, about what we do in fact think an adequate intuitive account of the moral responsibility of agent A and agent B is. To give such a positive account, we must start by further determining the situation in which the murder takes place. That is, we must determine those aspects of the situation that are essential to the moral responsibility of both agents. These aspects are often captured by formulating two conditions of moral responsibility. The one is the so-called epistemic, the other the so-called control condition.³³¹ The first condition refers to the actual or possible knowledge of the agents. For the murder case, the epistemic condition seems more important and I, therefore, I will focus only on this condition while simply assuming that the control condition is fulfilled. I discuss and clarify the control condition at length in the next section.

So, what should we assume with respect to the knowledge of agent A and agent B? I do share Norcross's claim that '[o]n the most intuitive readings of the [murder case] [...], neither [agent A nor agent B] knows about the other's action'³³². So, let us assume that this is, in fact, the case. Each of them takes himself to be the only assassin that schemes on killing Parfit. We shall, therefore, imagine two independent assassins that happen to carry out their respective plans to murder Parfit at the very same time. Taking into account this additional information regarding the knowledge of the two assassins, I contend that our intuition is such that both agent A and agent B are individually morally responsible for killing Parfit. In the end, it is sheer coincidence that they both end up in an overdetermination case. They were prepared to shoot Parfit irrespective of the actions of the other. If we take this to be our intuitive assessment of the individual moral responsibility of agent A and

³³¹ See Eshleemann 2016, 5.

³³² Norcross 2005, 155.

agent B, let us now see if the alternative analysis is—other than the established analysis or its modified version—indeed capable of reproducing this intuitive assessment.

The first thing to note is that the conditions for the application of alternative analysis are fulfilled. The murder case has, as I have shown before, the structure of an MTC. We can thus take the next steps in parallel with the ones we took in the third section when applying the alternative analysis to anthropogenic climate change. The first thing we noted was that for MTCs the no-harm principle can only be applied at the collective level and translates, in the first step, into the duty not to hit the threshold. The same is, thus, true for the murder case. It follows that the first, parallel result of applying the alternative analysis to the murder case is the collective moral responsibility of agent A and agent B not to hit the threshold. One might object at this point: Even though this is what follows from how we defined the alternative analysis above, the intuitive starting point that was justifying the claim of a collective moral responsibility in the case of anthropogenic climate change does not hold for the murder case. Above it was argued that the duty is collective because a single agent cannot hit the threshold alone. This, however, is not true for the murder case. This case is rather defined by the very fact that every agent can hit the respective threshold alone. What this shows us, however, is not that the alternative analysis does not apply to MTCs with $T=1$ but that the intuitive reasoning proposed in Section Two of this chapter was too much tailored to the case at hand. So how does one phrase the rationale in a more general way so that it applies to both cases—anthropogenic climate and the murder case?

The general feature of MTCs the reasoning has to capture is the fact that in both cases there can be a subgroup of the group of all agents for which it is not true that they have a duty to refrain from performing the respective actions. In the case of anthropogenic climate change, it was easy to see why this is the case: the subgroup consisted of all those individuals that together cannot hit the threshold. In the murder case this is not as straightforward. However, also there we can determine a subgroup. In the murder case, the subgroup consists of all those agents that act over and above the one agent that reaches the threshold with his action. Once the threshold is reached, any further action does not cause—by definition of an MTC with $T=1$ —any further harm and is thus not wrong. The more general reason is thus the fact that MTCs allow for a subgroup of the group of all agents for which it is true that they can perform the relevant type of action without

committing any wrong—that is, as long as the threshold is not reached—for MTCs with $T > 1$ —or already crossed—for MTCs with $T = 1$.³³³ The notion of already or not already crossed stands, of course, in a certain tension to the requirement of simultaneity. Far from being an objection, it only shows us that we have not reached the end of our analysis yet. The same is true for the preliminary formulation of the reasoning that still does not capture the deeper reason, as we will see in the next section.

So, let us continue by showing how the alternative analysis can reproduce our intuitive assessment of the murder case. We have just seen that we can indeed conclude that agent A and agent B have a collective moral responsibility not to hit the threshold. What is the next step? For both, agent A and agent B, to have violated an individual moral responsibility not to kill we must show that none of them can claim to have been part of a possible subgroup. Leaving aside the difficulty of what it could mean to establish a subgroup in the case of an MTC with $T = 1$, given that we assume that agent A and agent B do not even know of each other, there is no reason to assume that such a pattern has been established by the two. Thus, the collective moral responsibility has not been translated on the individual level via the establishment of a certain pattern. In addition, agent A and agent B cannot claim that even though a pattern was not established they knew that they would be in this subgroup because the other agent was determined to kill Parfit and thus they knew that nothing would happen.³³⁴ This would be, however, the only other possibility if no pattern is established.

Under these circumstances that neither agent A nor agent B can claim to know that they are part of the subgroup of agents that are allowed to perform the respective actions, we can conclude that both had the individual moral responsibility not to perform the respective type of action—at least as long as no pattern has been established. In shooting Parfit, they both violated this obligation and their actions were thus wrongful. Thus, the alternative analysis is indeed capable to reproduce our intuitive account of the murder case while established analysis as well as its modified version fail to do so by delivering each an absurd result of its own.

³³³ In a MTC with $T = 1$ it can of course also be allowed to emit after the threshold is hit given that once it is hit there is no further harm done. This depends on how the case behaves after the threshold is hit. It could also be that the harm done increases steadily with every action once the threshold is hit. Then it would, of course, not be allowed to perform the respective type of action even once the threshold ($T > 1$) is crossed.

³³⁴ That this is not a real possibility is also convincingly discussed by Alastair Norcross. He rightfully points out that there is no situation in which an agent could claim that the death of the other agent was certain: Starting from sudden changes of mind of the killer, to his gun jamming and so on. See Norcross 2005, 159f.

Let me briefly sum up the results of this section. We, firstly, saw that it is indeed the established analysis that lets individuals off the hook in the murder case (MTCs with $T=1$). I take it that this absurd result sheds quite some doubt on the adequacy of the established analysis for MTCs in general. We, secondly, saw that we should indeed reject the established analysis³³⁵ and not simply ‘add’³³⁶ a categorically distinct and *co-ordinated* level to the established analysis as Parfit does with (C7). Even though adding (C7) to the established analysis does help to avoid the absurd consequence that no one is responsible for killing Parfit, doing so incurs a new absurdity, that is, a doubling of responsibilities. We, thirdly and finally, saw that the alternative analysis could avoid the internal difficulties of the established analysis as well as its modified version because it is defined by two categorically distinct *and ordered* levels of responsibility. Furthermore, it provides us in addition to that with an answer to the question of moral responsibility in the murder case (MTC with $T=1$) that matches our intuitions. We can conclude here that these results lead to an ‘intuitive stalemate’ between the established analysis and the alternative analysis. While the established analysis is, at least supposedly so, more in alignment with our intuitions regarding our individual climate duties while the alternative analysis seems to let individual emitters off the hook, the reverse is true for the murder case. This ‘intuitive stalemate’ should give me some argumentative space for developing the control argument that exposes a deeper and more principled reason why the alternative analysis is indeed the adequate analysis for *all* MTCs—irrespective of the level of the threshold.

With respect to Parfit’s discussion of ‘[t]he Second Mistake’³³⁷ we can conclude that he had the right intuition about the need to refer to a categorically distinct collective level. The problem of his solution was, however, that he simply added the collective level. He was prompted to this solution because applying the no-harm principle at the individual level did not deliver acceptable results for the individual moral responsibilities in the murder case. No one seemed to be responsible for his death. This is, however, not the deeper reason why MTCs cannot be analysed as individual wrongdoings. His solution thus appears as rather *ad hoc*. Even more so as it is this failure to look for the deeper reason why the

³³⁵ More precisely, I should say that we should reject its answer to the second question of MR, that is, (C6). As said before, over the course of this chapter I do assume that FORMULA or, in the murder case, DMC tracks the actual causal pathways. Thus, I do not want to challenge the answer EA gives to the first question of CR.

³³⁶ Parfit 1984, 70.

³³⁷ Parfit 1984, 70.

established analysis does not work in the murder case that, eventually, led to the absurd doubling of responsibilities.

5. The Causal Structure of MTCs

In the second and third sections of this chapter, I have presented two different analyses of the normativity of anthropogenic climate change and their bearing on the question of individual climate duties. I called the first the established and the second the alternative analysis. To expose the deeper reason why the alternative analysis is indeed the adequate analysis for all MTCs irrespective of the level of the threshold we must shift our focus to the causal structure that underpins all MTCs. That is, we must shift our focus to the *qualitative* side that so far has been eclipsed in the discussion on individual climate duties that has exclusively been focused on the *quantitative* side. The question at the centre of the debate is whether individual outcomes are quantitatively significant. It is the answer to this question on which Walter Sinnott-Armstrong, John Nolt and Avram Hiller disagree. In addition, Parfit's discussion of the murder case shares the focus on the quantitative side. The necessity to develop a different analysis originated not in an insight into the qualitative structure of MTCs but the rather circumstantial fact that a focus on the quantitative side delivers counter-intuitive results: His assassins seemed not to be causally responsible for the harm that they inflicted on him.

What is the reason for this focus on the quantitative side of the question on causal responsibility? The qualitative side did not come into view because—even though participants in the debate were disagreeing sharply about the adequate answer to the question of causal responsibility—they all share the same answer to the question of moral responsibility. They all assumed that in the context of anthropogenic climate change we are exclusively dealing with instances of individual wrongdoings for which the alignment assumption holds. Individual agents are directly individual morally responsible for what they are individually causally responsible for. Thereby modelling the causal structures of individual emissions in the same way as those involved in kicks in the shins, the categorical difference between the two was eclipsed from the outset. Collective wrongdoings were assimilated to individual wrongdoings.

Nevertheless, what is the qualitative feature of the causal structure of MTCs that necessitates the alternative analysis and makes them collective wrongdoings? In the

previous section, I proposed an everyday way of capturing this feature when introducing the starting point of the alternative analysis as the following claim that ‘No one can bring about anthropogenic climate change alone’. We then saw that this claim provides a different starting point for the analysis of the normativity of anthropogenic climate change. It led to the formulation of the alternative analysis. To introduce the alternative analysis, I relied on the intuitive pull of this claim to initiate the development of the alternative analysis. I did not try to justify it. I was worried that, at this point in my argumentation, intuitions regarding the established and the alternative analysis would undermine the force of any argument from the outset. To many, the results of the alternative analysis appeared counterintuitive. However, things have changed. Having demonstrated that our intuitions are not that clear and, in fact, seem to pull in opposite directions—depending on which case we apply the established analysis and the alternative analysis—leading to an ‘intuitive stalemate’, we can now take up the task of justifying the alternative analysis. This section aims to clarify the intuitive capturing of the qualitative side of the causal structure of MTCs such as it is implicit in the intuitive rendering of the starting point of the alternative analysis. I then demonstrate why the qualitative feature necessarily translates into a different kind of normativity and why the adequate parsing of this different kind of normativity is the alternative analysis.

I will proceed in this section as follows. I start by introducing a set of technical terms to better account for the qualitative feature that is characteristic of the causal structure of MTCs (A). I then show how this qualitative feature affects the control that individual agents have over the outcomes that result from MTCs. I argue that individual agents *as such* have no control in MTCs and that this inhibits the direct attribution of the no-harm principle on the individual level. I call this the control argument. Contrary to what it seemed to the participants in the debate, individual agents do not fulfil all conditions of moral responsibility. Therefore, the alignment between causal responsibility and moral responsibility breaks. The group of agents does, however, fulfil all the conditions of moral responsibility (B). In the final subsection, I address an objection to the control argument. I show that it draws its appeal from a misleading tendency to brush over the crucial distinction between agent and non-agent, which is, arguably, the most important distinction in the context of moral responsibility. I term this mistaken tendency the *naturalistic bias* (C). This third and final step allows me to meet an objection that seems to suggest itself *and* to show that it is only

for this naturalistic bias that the established analysis can gather so much intuitive appeal among climate ethicists. The result of this section will, thus, be the reverse of where we started this chapter. The established analysis has lost its intuitive appeal, while a substantial argument supports the alternative analysis.

A. The Qualitative Feature of the Causal Structure of MTCs

The qualitative feature that is characteristic of the causal structure of all MTCs can be captured by distinguishing between aggregative and non-aggregative outcomes. To introduce this pair of concepts, we examine a helpful example from Ewan Kingston and Walter Sinnott-Armstrong to illustrate this difference.³³⁸ Note, that instead of ‘non-aggregative’ they use the term ‘emergent’.

‘[C]onsider a quantity of oil that has a mass of one kilogram and contains, say, 3 times 10^{25} molecules of oil. Then we can calculate the mass of one molecule of oil simply by dividing one kilogram by 3 times 10^{25} . The calculation works in this case, because each molecule has a mass, and the total mass is the sum of its parts. This kind of property is called ‘aggregative’ [...].

Contrast sliminess. The quart of oil is very slimy, but an individual molecule of oil by itself is not slimy at all. It is not that the molecule has a little sliminess, but much less than the whole quart. An individual molecule is not slimy in the least. We cannot feel any individual molecule at all, so it cannot feel like slime. [...] This kind of property is called ‘emergent’ because the property of the whole emerges out of parts that lack that property. Emergent properties of the whole are not properties of the parts.’³³⁹

Kingston and Sinnott-Armstrong introduce the difference between aggregative and non-aggregative properties with the example of oil. They compare its property of having ‘mass’ with the property of having ‘sliminess’. In everyday life, we may not think much about the different ‘behaviour’ of those two properties. Nevertheless, they do in fact belong in two different categories, or so they argue. While ‘mass’ is in their view an aggregative property, sliminess falls into the category of a non-aggregative property. By this, they mean that

³³⁸ I take it that the fact that Kingston and Sinnott-Armstrong point out this difference in reaction to criticism on Sinnott-Armstrong’s article ‘It is Not My fault: Global Warming and Individual Moral Obligations’ (Sinnott-Armstrong 2010 [2005]) further corroborates my claim that Sinnott-Armstrong did have something in mind like the alternative analysis I propose here. Neither Sinnott-Armstrong in his earlier piece nor Ewan Kingston and he together explore the implications of this observation for the attribution of moral responsibility.

³³⁹ Kingston/Sinnott-Armstrong 2018, 175. In a reference omitted in this quotation they point to Wimsatt 2007, Ch. 12 as source for the distinction between aggregative and emergent.

'mass' is a property that each part of the total amount of oil displays (in its proportional quantity). Take a barrel, a quart or only a drop of oil—all of them have a certain 'mass'. The existence of this property does not depend on the amount of oil we analyse. Even the tiniest bit of oil has a 'mass'. Sliminess, on the contrary, behaves differently. It is a property that is displayed by oil only from a certain amount onwards. When increasing the amount of oil we have in our hand, it is only from a certain point onwards that this amount displays 'sliminess' as a *new* quality, a quality it did not display before. The existence of this property, thus, does depend on the amount of oil we analyse. Not all amounts of oil display it.

	Individual Perspective	Comprehensive Perspective	Isolation Perspective
Aggregative Cases	Independent Individual Outcomes	Sum of Independent Individual Outcomes	Isolated Outcomes
Non-Aggregative Cases	Dependent Individual Outcomes	Collective Outcome	—

Table 12. Causal dependency and independency in aggregative and non-aggregative cases

We can observe the same difference with respect to the behaviour of the total outcome that results from the acts of many agents. They are also either aggregative or non-aggregative. I distinguish between three possible perspectives regarding the situation in which more than one agent acts to introduce and clarify the distinction between aggregative and non-aggregative outcomes. I use total outcome to refer to the outcome that the actions of all agents together have. To view this total outcome, we need to adopt a *comprehensive perspective* that comprises the individual outcomes of all agents. This comprehensive perspective is different from an individual perspective. If we adopt an *individual perspective*, we focus on a single agent and her actions. From these two perspectives, we must distinguish the third perspective, which I call the *isolating perspective*. Similar to the individual perspective, it focuses on a single agent and the consequences of her actions. In addition,

it is assumed counterfactually, however, that the respective agent acts in isolation from all the other agents, that is, as if she were the only agent. The distinction between the three perspectives allows us to introduce a parallel distinction between aggregative and non-aggregative outcomes with respect to situations in which many agents act.

To clarify the difference between aggregative and non-aggregative cases, I will now describe the specific behaviour of the total outcome in both cases from the three perspectives. Let us start with aggregative cases. In such cases, what we can refer to in a comprehensive perspective as the total outcome has no real-world counterpart. The notion of total outcome is a mere linguistic device or shortcut to refer to the sum of individual outcomes or, as we can also say, the mere aggregate of individual outcomes. The total outcome, thus, displays the *same* qualities as are displayed by each individual outcome when viewed in isolation. The total outcome does not display any additional quantities over and above the qualities the individual outcomes display. It is also for this reason that there is no difficulty in disaggregating the total outcome into the various individual outcomes that make up the total outcome. It could, of course, turn out to be rather difficult in practice to determine the corresponding individual causal responsibilities but there are no principled reasons for this. Given that we apply the no-harm principle to such cases, individuals are directly morally responsible for what they are causally responsible. The behaviour of the total outcome in aggregative cases is thus analogous to the behaviour of 'mass' in the oil example above.

Let us now turn to non-aggregative cases. Here we can observe quite a different kind of behaviour. In these cases, the total outcome is not just the sum or mere aggregate of individual outcomes. Contrary to what is the case in aggregative cases, here the total outcome displays new quantities and/or qualities. That is, quantities and/or qualities that are different from those the total outcome would display were it only the sum of the quantities and/or qualities the individual outcomes display in isolation. It follows from there that non-aggregative total outcomes cannot directly be disaggregated because they are not only shorthand for the sum of individual outcomes. They are not only the product of a comprehensive perspective but a collective phenomenon in the strict sense. That is, they have a real-world counterpart that is different from the mere sum of individual outcomes as viewed in isolation. To make this explicit, we can call the total outcome in non-aggregative cases a collective outcome. Here it is the individual actions as parts of the total outcome that have no independent reality. It is therefore, that we must establish a mechanism

according to which to translate from the collective level to the individual level before we can determine the individual causal and moral responsibility for shares of the collective outcome.³⁴⁰ The behaviour of the non-aggregative total outcome is analogous to the behaviour the property of ‘sliminess’ displays in the oil example.

The pair of concepts of aggregative and non-aggregative outcomes is tailored to the comprehensive perspective on total outcomes. We can introduce a parallel distinction for the individual perspective on single agents, that is, the distinction between *dependent* and *independent* individual outcomes. This allows us to say that, in aggregative cases, individuals have independent causal responsibility for the respective individual outcomes, meaning that the individual outcomes do not depend quantitatively and/or qualitatively on whether other agents act or do not act. This is different in non-aggregative cases. Here individual agents have dependent causal responsibility, meaning that individual outcomes are qualitatively and/or quantitatively dependent insofar as they do depend on the actions of other agents.

After the preceding discussion, it should be easy to see that anthropogenic climate change is an instance of a non-aggregative case. Every single action brings about bits and pieces of the total of climate harm only *dependently* on the behaviour of the other agents. This follows directly from the uncontroversial nature of anthropogenic climate change as an MTC. That is, it is only from a certain threshold onwards that individual outcomes become harmful. The *new* quality of climate harm is displayed by individual emissions only if many other agents also emit. Just as the sliminess of the oil. We can, thus, say that the causal role of individual agents in bringing about climate change-related harms is, therefore, one of the *dependent* causes.

This may seem more difficult to see for the murder case. Here one could be inclined to think that it is, in fact, an aggregative case. After all, and contrary to anthropogenic climate change, one agent is enough to bring about Parfit’s death, and his ability to do so is independent of the behaviour of the other agent. Already a single contribution reaches the

³⁴⁰ We should not be surprised to see here the same differences become relevant as above when discussing the notion of collective moral responsibility. The argument I present can be understood as showing that the difference between a substantive (non-aggregative) notion and a non-substantive (aggregative) notion of collective moral responsibility is only the reflection of a parallel distinction in the causal structure of the respective cases between aggregative and non-aggregative outcomes. Put differently, it is the causal structure that is reflected in the sphere of moral responsibility given that we apply a causation-based principle to determine the moral responsibilities.

threshold. This first impression is, however, mistaken. We can observe for the murder case the same behaviour of the outcome as in the case of anthropogenic climate change—only in a reversed manner. While for climate change the harmfulness of the individual actions is a dependent outcome, the harmlessness of the individual actions is a dependent outcome in the murder case. That is to say, we saw that the individual actions of agent A and agent B play no causal role in bringing about Parfit's death and they are, in this sense, harmless. Both, agent A and agent B, shoot Parfit but none of the shots has the effect of killing Parfit. The reason for this harmlessness is not that they both miss their target. The reason is that overdetermination cases such as the murder case are non-aggregative cases. That is, the total outcome in the murder case is the *overdetermined* death of Parfit—and not just his simple, mono-causal death, as one might think³⁴¹—with the harmlessness of the individual actions of agent A and agent B being their dependent outcome on the individual level. That the harmlessness is a dependent outcome of the individual actions of agent A and agent B is clear, because shooting and hitting someone fatally is only harmless in the rather rare circumstances of an MTC, that is, that another agent shoots at the same person at the same time and also strikes the victim with a fatal bullet. Put differently, if the murder case were in fact an aggregative case, we would have to count *two* deaths, rather than one.

Anthropogenic climate change and the murder case have, over the course of this chapter, served as illustrating examples for MTCs with $T > 1$ and $T = 1$. The arguments I developed with respect to them were, nevertheless, valid for the type of MTC they stand for. We can conclude at this point that it is true for all MTCs that they are instances of non-aggregative cases.³⁴² In other words, causation on the individual level is defined by the qualitative feature of dependency. This feature has been overlooked in the debate on individual

³⁴¹ This is a crucial point. One might indeed think that dead is dead, and thereby overlook this distinction. Even though it is true that Parfit can only be shot once, the overdetermined death and the simple death of Parfit are indeed different outcomes. This becomes clear when we observe their different behaviour. Take, for example, the following two cases. In one, only agent A fires a deadly shot at Parfit; the other case differs from this case only insofar as there is in addition agent B who also fires a fatal bullet at Parfit. Now assume that the gun of agent A jams. In the first case, this would mean that this saves Parfit's live while in the second case Parfit would still die. This is what I mean by different behaviour, and what makes an overdetermined death a *different* outcome from a simple, mono-causal death. Another such difference is the one I point out in the remainder of this paragraph.

³⁴² A brief terminological remark. Even though there might well be other mechanisms except for thresholds that lead to a non-aggregative behaviour of the outcomes, I will use the notion of MTCs and non-aggregative cases synonymous in what follows. As mentioned before, Tracy Isaacs, for example, is primarily interested in such cases as genocides. In these cases, it is also true, according to Isaacs, that the overall outcome is more than the sum of the individual acts. What the concrete mechanism might be in the case of genocides remains, however, rather unclear. Isaacs mentions at one point 'an overarching sense of purpose and joint effort' (Isaacs 2006, 64). If this is true, this may be one mechanism that is different from thresholds.

climate duties. The terminology just introduced thus allows us to reformulate the intuitive starting point of the alternative analysis—that is, the claim ‘no one can bring about anthropogenic climate change alone’—as they claim that

‘No individual agent can have *independent* causal responsibility for anthropogenic climate change (or parts of it).’

I contend that this reformulation allows us to propose an interpretation of Sinnott-Armstrong’s argument that is different from that of Nolt and others. According to the interpretation, Sinnott-Armstrong wanted to highlight the qualitative difference between dependent and independent causation by claiming that individual emissions do not cause anthropogenic climate in the same ‘direct way’³⁴³ as cyanide introduced into a river would kill someone drinking it in the water downstream—and not the insignificance of individual causal contributions in a quantitative sense. In a parallel fashion, we can state for the murder case that the actions of individual agents are only *dependently* inconsequential, that is, dependent on the actions of other agents.

B. The Control Argument

The established analysis starts from the assumption that the no-harm is directly applicable at the individual level and, thus, with individual duties, while the alternative analysis assumes that the no harm-principle only applies at the collective level and, thus, starts with a collective duty that accrues to a group of all emitters. Whether the no-harm principle applies at the individual or the collective level does, however, depend on whether individual agents as such or only the group of agents fulfils the conditions for the attribution of moral responsibility—irrespective of the significance of their individual causal contributions. A necessary condition for the attribution of moral responsibility is the so-called control condition. It holds that only those entities that have (actual or possible)³⁴⁴ control over whether the harm occurs can bear moral responsibility.³⁴⁵

³⁴³ Sinnott-Armstrong 2010 [2005], 335.

³⁴⁴ It is important to note that the mere possibility of control suffices for the attribution of moral responsibility. A lack of control that obtains due to one’s own fault is no sufficient for an agent to avoid moral responsibility. This is especially important for groups of agents because in these cases collective control is not simply given, while the ability to cause harm collectively is.

³⁴⁵ Another necessary condition that is often invoked is the so-called epistemic condition. It holds that for an agent to be morally responsible a specific kind of knowledge on the side of the agent is necessary. For an overview on the philosophical discussion of moral responsibility from its early days onwards that also points out the centrality of the control condition and the epistemic condition, see Eshleman (2016), esp. 4–5. For our discussion we can simply assume that all further conditions such as the epistemic condition are fulfilled. Firstly, because the argument I want to develop here only affects

Our debates on moral responsibility often presuppose a stunted understanding of control. While individual control consists of three different dimensions, it is often reduced to only one of them. What I want to show in the following is that it is indeed one of these neglected dimensions of individual control in which the qualitative feature of dependent individual causation plays out—to the effect that within MTCs no individual agent but only all implicated agents together meet the conditions of moral responsibility. It follows from there that the neglecting of certain dimensions of individual control and the neglect of the qualitative feature of dependent individual causation are two sides of the same coin. Therefore, the systematic reason why the alternative is adequate for MTCs while the established analysis is not is eclipsed. Every control dimension is defined by a specific kind of control deficit. Every control deficit leads to a specific kind of modification of the kind of moral responsibility that accrues to the agent in question. In the following, I discuss each of the control dimensions and the respective control deficit in turn.

	Name for Control Deficit	Origin of Control Deficit	Moral Responsibility
Internal Control Dimension	Involuntariness	Nature/ Agents	-
External Control Dimension 1	Natural Risk	Nature	Individual risk duty
External Control Dimension 2	Social Risk	Agents	Collective duty

Table 13. The three control dimensions of individual agents and correlated concepts

We must distinguish between one internal and two external control dimensions. The second external control dimension is affected by the qualitative feature of dependency. Showing how and why this happens is what I call the control argument. Let me now discuss the

the control condition. Secondly, because the epistemic condition is only relevant to ethical theories of moral responsibility—such as a no-harm perspective—but not to political theories such as a Kantian political theory. For the latter only the control condition is important because the only requirement for the notion of domination to apply is that the entities in question are agents. Control is, however, one of the key conditions of agency.

different control dimensions in turn. While doing so, I assume for the sake of simplicity that the other two control dimensions are fulfilled, that is, the agent has full control in this respect. This is, however, not necessarily so. It is indeed possible that none or all of the three control dimensions are fulfilled at the same time. They are not mutually exclusive in any sense. A lack of control on one of these levels can suffice, however, to undermine the moral responsibility of an individual agent.

The *internal control dimension* of individual agency captures a kind of control that is closely linked to the notion of a free will. The notion of free will is the expression for a specific kind of control that individual agents have over their actions.

‘[F]ree will has traditionally been conceived of as a kind of power to control one’s choices and actions. When an agent exercises free will over her choices and actions, her choices and actions are *up to her*.’³⁴⁶

The notion of a free will refers to a specific relation the agent has to her choices and actions. If her will is free then it is her decision whether to do A or B or C. These aspects of her agency are under her control. The control dimension the notion of a free will picks out is, thus, in a certain sense internal to the agent. It is therefore that I call it the internal control dimension. This idea is, of course, notorious for raising many difficult questions that have been occupying philosophers for millennia up to today.³⁴⁷ One of the longest-lived issues concerns the *prima facie* or actual incompatibility of the assumption that agents are equipped with such as free will while, at the same time, maintaining that some sort of an all-compassing determinism is true. There are, however, less fundamental ways in which this kind of individual control can be compromised. Here different kinds of obsessive behaviour come to mind. In addition, other agents can be the origin of a lack of internal control. Remember, for example, our discussion of the notions of force and coercion in the preceding chapter.

So how does a lack of control in this dimension modify the moral responsibility of an individual agent? Let us take up again the example of someone who is forced at gunpoint to do something we consider a wrong. In such a situation, we would probably hold that the

³⁴⁶ O’Connor/Franklin 2018, 14.

³⁴⁷ For an historical and systematic overview on the debate on the notion of a free will and related concepts such as determinism, see O’Connor/Franklin 2018, 1–77. With respect to the questions it raises in the context of moral responsibility O’Connor/Franklin 2018, 14–18.

agent is not morally responsible for the wrong she was forced into doing because she did not fulfil the control condition. The control condition is, however, a necessary condition of the attribution of moral responsibility. This result is, of course, at the centre of the concern that motivates the debate on determinism. If we had to conclude that agents are determined, this might seem to imply that they can never be said to be morally responsible for any of their ‘actions’ for a similar kind of reasoning. I take it that we all are familiar with reasoning about this kind of control dimension and the problems it raises—simply because life gives rise to those questions in one way or another all the time. We are also familiar with the modifications to it engenders with respect to moral responsibility. Let us now turn to the external control dimensions.

An agent can not only have a lack of control over internal aspects of her action. She can also have a lack of with respect to external aspects of her action. Such an external lack of control is given if an agent lacks control over the outcomes of her actions. In such a situation, an agent can decide whether to perform action A, action B or action C, but she has no control over whether specific outcomes materialise because of her performing or not performing one of these actions. This depends on other factors. We are familiar with this kind of lack of control from *Chapter One*, where I introduced the notion of risk. Together with the notion of a chance, it is the very expression of this kind of control deficit. Conditions of agency in which agents have no control over whether certain unwanted outcomes will materialise because of their actions are described as risky and the unwanted outcomes themselves as risks, whereas outcomes, we hope our actions bring about, are described as chances. Sven-Ove Hansson, for example, clarifies the two concepts in the following way.

‘The tourist who hopes for a sunny week talks about the ‘risk’ of rain, but the farmer whose crops are threatened by drought will refer to the ‘chance’ rather than the ‘risk’ of precipitation.’³⁴⁸

I will focus here only on risks and introduce a distinction between two types of risks: natural and social risks. To introduce this distinction, we briefly must discuss one of the intricacies

³⁴⁸ Hansson 2013, 7. The example might seem slightly at odds with the focus on outcomes of actions. I do contend, however, that this is only for an elliptical way of speaking. The ‘risk’ is actually ‘to go on holidays and to end up in rainy conditions’ while the ‘chance’ has to be described as ‘to plant seeds and to reap an abundant harvest due to sufficient rainfall’. If no agency were involved we would not speak of risk but of danger. For this distinction, see also Langer/Niederberger 2018, 60f.

the notion of risk raises. The intricacy we must discuss surfaces when we begin to ask questions regarding the origin of the lack of control that defines risky situations. It is usually assumed that the control deficit over outcomes originates in a lack of knowledge by the agents over the environment they act in.³⁴⁹ Thus, climate change would cease to be a risk if we were only in a position to know everything there is to know about the natural processes involved in it. For then we could simply calculate the effects the injection of a certain amount of greenhouse gases into the atmosphere would have. This is so because the environment itself is assumed deterministic. It is, therefore, the deficient epistemic position of the agent and the accompanying lack of knowledge that is the origin of the risk—and not, as one might naïvely assume, random processes in nature itself from which the lack of knowledge and, consequently, a lack of control originates. I do share this view. I will nevertheless adapt to what follows the naïve idea that risks stem from uncontrollable processes out there in the environment. This allows me to introduce the distinction between natural and social risks more easily, that is, while leaving the complicating epistemological questions aside. This simplification is unproblematic as there is no difficulty in adding this epistemological complexity later to the picture.

So, what is meant by natural and social risks?³⁵⁰ They both refer to an external control deficit. Their difference lies in the origin of the external control deficit the agent has over the outcomes. Given the simplifying assumption, the lack of control can either originate in the behaviour of other agents or from non-agential, that is, natural elements of the agents' environment. I call risks that originate in other agents 'social risks', while I call those risks that originate in non-agential factors 'natural risks'. Unsurprisingly, the distinction between agents and non-agents is of crucial importance to the question of moral responsibility. Only agents are to be held morally responsible, if at all. We will see now that the social or non-social origin of the risk does, indeed, translate into two different kinds of modifications of moral responsibility.

Let us start with natural risks, the *first external control dimension*. Situations in which an agent has this kind of lack of control are defined by a complete lack of control of the agents over whether certain outcomes will materialise. It might be possible for agents

³⁴⁹ Sven-Ove Hansson lists as the second characteristics of risk, in addition, to the characteristic that risky outcomes are unwanted: 'Secondly, 'risk' indicates a lack of knowledge' (Hansson 2013, 7).

³⁵⁰ For the distinction between non-social and social risks and a discussion of its implications, see also Langer/Niederberger 2018.

to determine the likelihood of a certain outcome to eventuate. However, this does not change the fact that it is outside the control of the agent whether the outcome will in fact materialise. The agent can only control whether she performs the risky action. The agent has internal control over her action but no external control its outcomes. The normativity of natural risks is captured by what we are familiar with from *Chapter One* as risk ethics and what we should now, more precisely, call *natural* risk ethics. A natural risk ethics tries to determine our individual moral responsibilities for situations that are defined by control conditions as just set out. We saw in *Chapter One* that the established normative theories are not capable of explaining the kind of wrong that is involved in those situations, that is, situations in which people impose risks on each other, and, therefore are also not able to account for the moral responsibility specific to natural risks. Taking this kind of external control deficits into account means for a normative theory that it has to develop answers to a new set of questions. It has to determine, for example, under which conditions natural risks can be justifiably imposed on others or try to explain the distinct kind of wrong risk imposition poses, that is, explain the seemingly paradoxical nature of risk impositions—what I called the PRI in *Chapter One*. The kind of individual control deficit that defines natural risks thus leads to a modification of moral responsibility insofar as it opens the entirely new field of individual moral duties regarding risk imposition or individual risk duties. This kind of control deficit has often been overlooked in normative theorising. Sven-Ove Hansson forcefully called the tendency to do so ‘deterministic bias’³⁵¹.

Let us now turn to the *second external control dimension*. It is this dimension in which the qualitative feature of the causal structure of MTCs or, more generally, non-aggregative cases plays out. Aggregative cases only feature the first two dimensions. The aspects that can be the origin of a lack of control in those two dimensions are either challenges to internal control or natural factors of the agential environment. This is so, because individual outcomes are, by definition, independent of the actions of other agents. If harm is caused in an aggregative setting, the respective individual agent has independent causal responsibility for it. The second external control dimension emerges when we consider the possibility of non-aggregative harm. As we have seen, in this case, individual agents only have *dependent* individual causal responsibility for (parts of) the non-aggregative outcome. The harmfulness of individual outcomes is *dependent* on the actions of other agents. The

³⁵¹ Hansson 2013, 1.

preparatory work we have done so far will allow us to grasp easily the important information this qualification of individual causal responsibility carries with respect to individual control and, thus, for the modification of moral responsibility.

For natural risks, the control conditions are characterised by an agent acting in a non-deterministic natural environment. Whether a harmful outcome is brought about depended only on the agent's actions and random natural processes. The only unit of control in this setting is the agent in question. With the origin of the lack of control being the actions of other agents—as it is the case for social risks—the picture changes fundamentally. Whether the non-aggregative outcome is brought about no longer depends on the action of one agent and some random natural processes. It now depends on the actions of a *group* of agents. Instead of one unit of control, we do now have many units of control. This has important consequences for the control of each individual agent. On the one hand, it is true for each agent that none of them has any control over the non-aggregative outcome (or parts of it), just as in natural risks. On the other hand, it is also true that all agents *together*, that is, as group, do have full control over whether the harm is brought about, since, in non-aggregative cases, it depends only on the behaviour of these agents whether harm is brought about. While each individual agent only has internal control, the group of agents does have internal and external control. We can, thus, now say that the dependency of causation means that each individual agent implicated in a non-aggregative outcome has no control over whether her individual action is harmless. The group, and the agent as member of the group, however, does have control over whether harm is brought about by their actions.

I believe that it is this complete lack of external control of individual agents that is expressed in the everyday claim I used above to intuitively introduce the starting point of the alternative analysis. That is the claim that 'No single agent can bring about anthropogenic climate change alone'. Now it is no longer difficult to see why this claim does indeed support the starting point of the alternative analysis. Understood as pointing out the specific kind of control conditions that define non-aggregative cases, the specific modification of moral responsibility that corresponds such control conditions is quite straightforward: Since individual agents as such do not have any control over the non-aggregative outcome (or parts of it), they do as such not fulfil the control condition for moral responsibility. Since the control conditions is a necessary condition for moral responsibility it follows that

individual agents as such cannot be held morally responsible. More generally, we can say that the no-harm principle does not apply at the individual level and the alignment between causal and moral responsibility breaks up. All agents taken together, however, do fulfil the control condition of moral responsibility. All agents together do have control over the non-aggregative outcome and no other factors involved undermine their control. Thus, the no-harm principle does apply at the collective level.

We can conclude at this point that non-aggregative cases such as anthropogenic climate change are indeed a different kind of wrong. As we have just seen, the reason for this is the specific shape of the corresponding shape of the control conditions. Coming back to where we started, we can say that individual emissions such as joyguzzling do *not* fall into the same category as kicks in the shins because the non-aggregative harm caused by individual emissions is a dependent outcome of these actions while the aggregative harm done by a kick in the shins is not. It is independent of the actions of other agents. Anthropogenic climate change is, therefore, a collective wrongdoing, while kicks in the shins are individual wrongdoings.

At this point one objection seems to suggest itself to many. For it may seem that the control conditions for non-aggregative cases are just not the way I am claiming. I contend that this impression relies on a widespread mistake that is, at the same time, the reason why the difference between natural and social risks has often been overlooked. Their objection is based on confusion.

C. The Confusion of Predictability and Control

Let me start with a detailed account of the objection. I then show that the same rationale that motivates the objection is the reason that almost no one in the debate on individual climate duties pays heed to the qualitative difference between aggregative and non-aggregative cases. I argue that this rationale relies on a mistake. I call this mistake the *naturalistic bias*.

The objection starts by pointing out that the control argument I presented above hinges entirely on the claim that, in social risks, individual agents have no control over (parts of) the non-aggregative outcome while only the group of agents does. This, however, seems obviously wrong. Individual agents *do* have control. Let us examine again the

example of anthropogenic climate change. If we follow Nolt's calculation regarding the effects of individual actions—and I explicitly stated that I do not want to dispute his response to the question of causal responsibility—then it follows that each agent is causally responsible for up to two deaths. This was the result of FORMULA. However, is this not just another way of saying that up to two deaths *are* in fact under the control of each individual agent? Then, however, it seems that the control condition—contrary to what I have argued—is fulfilled by each individual agent, at least for the two deaths each agent is causally responsible for. Consequently, we *can* hold each individual agent directly morally responsible for these outcomes. That is, anthropogenic climate change can be analysed as an individual wrongdoing as the no-harm principle applies at directly at the individual level.

So, where does this objection go astray? Let me start by pointing out where I am not disagreeing. It is true that I do not mean to challenge the claim that agents are causally responsible for (parts of) the non-aggregative outcome. Furthermore, this causal responsibility might indeed be causal responsibility for the life of two future persons, which is, of course, quite significant. However, to assume that the individual agent has *control* over (parts of) this outcome is an additional and quite a different claim. This is where the objection goes awry. To assume that the one accompanies the other is erroneous. It confuses predictability and control. Let us examine this notion and revisit the example of anthropogenic climate change. To see the difference between the two, consider the following: because I can predict the behaviour of all other agents and, thus, can predict the harm my own emissions will cause does not mean that I have control over whether my emissions cause this harm. This is so, because it is true for all non-aggregative cases that the harmfulness of my own actions *depends* on whether the threshold is crossed. Whether or not the threshold is crossed, and whether or not the set of necessary actions is performed, is, however, solely under the control of all agents together, not of any individual agent. Moreover, this is still true *even though* I can *predict* that all the other agents continue emitting and we are, therefore, almost certainly going to hit the threshold, which means that my actions are almost certainly going to cause two deaths.

The confusion of predictability and control then leads to a mistaken analysis of the normativity of non-aggregative cases. The reason is that the actual or predictable behaviour is neither here nor there when it comes to determining the normativity of non-aggregative cases. Taking the predictable actions of the relevant agents as default situation when

assessing the normativity of a specific individual agent distorts the picture of the normativity that defines the situation. That is, it amounts to the assumption that the actual or predictable behaviour of the other agents is *permissible*. We can call this feature of the normativity in non-aggregative cases *dependent normativity*: In non-aggregative cases, it is not possible to determine the individual moral responsibility of a specific agent *without* making assumptions about the individual moral responsibility of the other agents. It is the mere flipside of the assumption that agent A has an individual moral duty not to emit that it is permissible for (some of) the other agents to emit. To make this more tangible, take the example of agent A, agent B and agent C from above. If we assume that agent A and agent C do emit or will continue emitting as our default position—according to our best predictions—when assessing the duties of agent B, the no-harm principle indicates that agent B is not allowed to emit in this situation because if she did, the threshold would be reached and harm would ensue. Such a rationale implicitly assumes, in the guise of the actual or predictable behaviour of agent A and agent B, that agent A and agent B *are allowed* to emit. A normative assumption is disguised as a descriptive assumption. Thus, the mere *fact* of agent A and agent C emitting appears to preclude the possibility that agent B has a permission to emit. To make the import of this more tangible, let us take again anthropogenic climate change as an example. The absurdity of the objection becomes clear if agent B is a global south country while agent A and agent B are, for instance, Europe and the US. Sticking to the objection would lead to the conclusion that the global south country has a duty not to emit because Europe and the US show no empirical evidence of reducing their actual emissions.³⁵²

³⁵² Now, one could raise some further objections that are important within discussion of ethical normativity. Firstly, one could accept my rejection but still be critical of the analysis of the normativity I gave. It could be pointed out that this is quite an ideal approach to the question of individual duties and that we should prefer—especially in the case of anthropogenic climate change—a non-ideal perspective. In other words, we should factor in the non-compliance of agents when assessing individual climate duties. This approach is, of course, worth perusing. I do, however, want to make two points. Firstly, it is the ideal perspective that is implicit in the framing of the debate on individual climate duties. It wants to know whether the no-harm principle supports the direct attribution of individual climate duties. If we think we should consider the possible or actual non-compliance of some agents then we would have to take another normative principle than no-harm principle. Namely, something along the lines of ‘If there are non-compliant agents, then individual duties should be determined according to...’. This, however, does not change the fact that the non-compliant agents do have the duty not to emit in a (mere) no-harm perspective. This leads me to the second point. Secondly, I contend that the revised non-compliance principle only gives us a *weaker* form of ethical normativity than the ideal perspective. Take the example from above. It would be another absurd outcome if our non-ideal normative theory would hold that, given the non-compliance, the global south country now has a duty in the sense of a strict moral requirement to take up the slack. At best, it could be a supererogatory duty for the fulfilment of which global south countries would deserve our appraisal, but the global north would still be to blame for their non-compliance in the first place.

How does this objection relate to the question of why the decisive difference between aggregative and non-aggregative cases is overlooked in the debate on individual climate duties? I argue that the confusion of predictability and control is the mistake that lies at the heart of the arguments in the debate on individual climate duties—irrespective of whether it is argued in favour of or against the idea that the no-harm principle does support the direct attribution of individual climate duties to individual agents. Furthermore, this confusion leads to developing models of anthropogenic climate change that eclipse, from the outset, its non-aggregative nature. This, unwittingly, has self-immunising effects. Once anthropogenic climate change is modelled as an aggregative instead of a non-aggregative case, the established analysis becomes an adequate analysis—and critique of this analysis appears to be misplaced. The model itself, however, is inadequate and, therefore, so is the established analysis.

To see this, let us re-examine the flooding-analogy that Sinnott-Armstrong proposed as a model to consider the normativity of anthropogenic climate change. He claimed the following:

‘Global warming is more like a river that is going to flood downstream *because of torrential rains*. I pour a quart of water into the river upstream (maybe just because I do not want to carry it). My act of pouring the quart into the river is not a cause of the flood. Analogously, my act of driving for fun is not a cause of global warming.’³⁵³

The suggestion is that we can assess the normativity of individual agents by taking the river example as the basic model. As introduced above, a basic model displays all those features of a real-world case that cannot be added later in the analysis without misrepresenting the phenomenon from the outset. I contend that the flooding analogy of Sinnott-Armstrong is an inadequate basic model for anthropogenic climate change as it omits one such crucial feature. The crucial feature that does not figure in his basic model is the simple fact that there is more than one agent involved in causing anthropogenic climate change. Sinnott-Armstrong, however, seems to assume that we can simply represent all other agents as if they were natural sources when assessing the individual moral responsibilities of a specific agent. The high water of the river is caused by ‘torrential rains’³⁵⁴ not by other agents.

³⁵³ Sinnott-Armstrong 2010 [2005], 335; my emphasis.

³⁵⁴ Sinnott-Armstrong 2010 [2005], 335.

This confusion also lies at the heart of the objection that makes this assumption appear unproblematic, and it is incorrect for the very same reasons. To represent agents as non-agents and their actual or probable behaviour as given, amounts to (implicit) normative assumptions in the context of a dependent normativity such as it is characteristic for non-aggregative cases. Agents must be taken into account *as agents* and as centres of control. It is only consistent, though, that Sinnott-Armstrong not even distinguishes any more between agential and non-agential sources of greenhouse gases and *de facto* naturalises agents in representing them as natural sources. Doing so, however, eliminates even the possibility of becoming aware of the difference between non-aggregative and aggregative cases. It has self-immunising effects in this sense. This is so because, even if we added a threshold to the flooding-analogy, it would not change the normativity of the case at hand. The threshold can only change the normativity if other *agents* figure in the model. This tendency to naturalise agents is very common, and I call it the *naturalistic bias*. To put it more generally, we can define the *naturalistic bias* as the tendency to fail to account for the social origin of the lack of control when adopting a normative perspective, in other words, its origin in the actions of other agents. Instead, this origin is eclipsed by naturalising the other agents and, with them, eclipsing their control.³⁵⁵

What is the origin of this naturalistic bias and why is it not recognised as problematic? To explain the origin of the naturalistic bias one has to consider certain things. Firstly, a general lack of awareness of the difference between aggregative and non-aggregative outcomes and, thus, of dependent and independent causation. Secondly, one has to see that for aggregative outcomes it is indeed entirely unproblematic to naturalise agents. In other words, the predictable outcome of an individual action is, indeed, the outcome that this individual controls. Therefore, there is no need to make the additional effort to distinguish between agential and non-agential elements of the environment in which the assessed action takes place. Adding to this, thirdly, that non-aggregative cases are a rather new kind of wrong or, at least, the less common phenomenon, the fallacious tendency to take aggregative causation as the default to analyse individual actions such as joyguzzling becomes quite conceivable. This is another aspect where the new kind of agential

³⁵⁵ This naturalistic bias can also be found in attempts to determine individual climate duties that might seem to remedy this error at first glance, that is, attempts that resort to a risk perspective. They equally fall prey to the naturalistic bias when they model anthropogenic climate change as natural and not as a social risk. See, for example, Alamassi 2012, Lawford-Smith 2016, Morgan-Knapp/Goodman 2015, Schwenkenbecher 2014.

circumstances that define the Anthropocene become visible. This makes us aware of a more general problematic—this lack of awareness is built into the general principles we use when determining the normativity of any given case at hand. These principles are implicitly geared towards the application to aggregative cases. Therefore, they do not distinguish between agents and non-agents and, thus, the tendency to brush over this essential difference when it comes to non-aggregative cases is fostered once more.

To see this, let us have a brief look at the general principles we applied. The first principle we applied was the difference-making criterion. It was applied in the established analysis to determine the causal responsibility of individual agents. The difference-making criterion holds that to determine individual causal responsibility in any given case we must compare the case in which the agent performs the respective action with the counterfactual case in which she doesn't—while holding all other circumstances fixed. If I hold *all* circumstances fixed I do, however, not discriminate between agents and non-agents. I do take their actual or probable behaviour as given just as any other natural aspect of the environment. Now, this is not problematic. However, if I am, additionally, not aware of the need to distinguish between aggregative and non-aggregative and, thus, between independent and dependent causal responsibility it might seem to me that the causal responsibility determined this way is all I need to apply the no-harm principle. This misleading appearance is additionally supported by the way the no harm principle is formulated. The formulation Sinnott-Armstrong provided was the following: 'We have a moral obligation not to perform an act that causes harm to others'³⁵⁶. Here again it is not being discriminated between dependent and independent causation.

To correct this bias, we must reformulate the principles to highlight the most important insight of the discussion in this section: the no-harm principle is a *more qualified* principle than is commonly assumed. The no-harm principle applies directly only to *independent* causes of harm and only indirectly to dependent causes of harm, because dependent causes do not fulfil the conditions of moral responsibility, that is, the control condition. Only independent causes fulfil the control condition. A reformulated no-harm principle must read as follows.

³⁵⁶ Sinnott-Armstrong 2010 [2005], 334.

Reformulated No-Harm Principle We have a (direct)³⁵⁷ moral obligation not to perform an act that *independently* causes harm to others.

We must be aware that the difference-making criterion is indiscriminate with respect to whether the agent makes the difference independently of the acts of other agents—such as in the case of kicks in the shin—or whether she makes this difference only dependently on the acts of other agents—such as in the case of anthropogenic climate change. Applying the difference-marking principle is thus only the first step. Secondly, we must determine whether we deal with an aggregative or non-aggregative outcome to adequately apply the no-harm principle.

So where are we now? We have seen in this section that the specific qualitative feature of the causal structure of non-aggregative outcomes results in a modification of the control conditions of individual agents that is different from the ones we are familiar with from aggregative outcomes. For all non-aggregative cases—and that is, for the discussion here, for all MTCs irrespective of the level of the threshold— individual agents as such have *no control whatsoever* over whether the non-aggregative outcome is brought about as a consequence of their actions, while at the same time, all contributing agents *together* do have full control over non-aggregative outcome. It is for this specific modification of the control conditions that the no-harm principle only applies at the collective level. This is the control argument. It is this argument that justifies retrospectively the starting point the alternative analysis. The non-aggregative nature of anthropogenic climate change and, thus, climate harm has the consequence that the no-harm principle can indeed only be applied at the collective and not directly at the individual level as the established analysis assumes. Non-aggregative cases are collective wrongdoings, not individual wrongdoings. The control argument supports the CWT while it rejects the IWT.

What those defending the established analysis in the debate on individual climate duties overlook is the *dependency* of individual causal responsibility for non-aggregative outcomes and, thus, are misled in thinking that they can apply the no-harm principle directly on the individual level. Focusing only on the quantitative side of the causal relation

³⁵⁷ The distinction between direct and indirect moral duties is only relevant for non-aggregative cases where the no-harm principle applies directly only to a group of agents and only indirectly to individual agents. Since the no-harm principle can be applied to aggregative and non-aggregative cases alike, we must put this qualification into parenthesis.

and overlooking this qualitative feature it seems to them that joyguzzling is the same kind of wrongdoing as a kick in the shins. Having pointed out the actual categorical difference between the two, we can now see that applying the no harm-principle directly at a single joyride is tantamount to applying the no-harm principle in the case of a kick in the shins directly at, for instance, only the upper leg instead of the entire agent who only exerts full control. The control argument set out in this section is the deeper, systematic reason for why the alternative analysis is the adequate analysis for all MTCs while the established analysis is not. Additionally, we also made significant progress on the intuitive front. While it seemed that after simply introducing the two analysis in section 2 and section 3 that the established analysis can garner more intuitive support than the alternative analysis, already at the end of section 4 could we observe an ‘intuitive stalemate’ between the established and the alternative analysis. Thus, each of the two analyses yielded intuitively plausible results in one case and counter-intuitive results in another case. After the discussion in this section, we can conclude that the intuitive appeal of the established analysis with respect to MTCs with $T > 1$ is only apparent. That is, it resides on a naturalistic bias and vanishes once this bias is exposed. With respect to Sinnott-Armstrong’s article claiming in its title that global warming ‘is not *my* fault’³⁵⁸ we can add at this point that it is not *my*, it is *our* fault³⁵⁹.

However, it is also with respect to main thesis that this section allows us to draw an important conclusion. I contended against the backdrop of the changed circumstances of action that are characteristic for anthropogenic climate change that modifying a Kantian political theory accordingly yields the result that anthropogenic climate change must be understood as a form of *collective domination*. To see this, I started by showing that the notion of domination—that stands at the core of a Kantian political theory stands—can be split into three elements: the relation of domination itself (ELEMENT 1), the dominating party (ELEMENT 2) and the dominated party (ELEMENT 3). It was in the previous chapter that I developed a non-physical notion of force that indeed allows us to describe the causal relations that define anthropogenic climatic changes as a relation of predominance of the wills of some over the wills of others and, thus, as a relation of domination (ELEMENT 1).

³⁵⁸ Sinnott-Armstrong 2010 [2005], 332.

³⁵⁹ See Langer 2020.

The paradigmatic example was the case of forced climate displacement. It was the aim of this chapter to argue for the claim that this relation of domination is, indeed, collective and not individual. That is, that it obtains between groups of agents and not between individual agents. The focus of this chapter was, thus, on the dominating party (ELEMENT 2).

The argument I developed in this section with respect to the no-harm principle equally holds for the notion of domination. Why is this so? The systematic argument that demonstrates why the no-harm principle can only be applied to the group of agents and not to individual agents was the control argument. At the heart of this argument lay an analysis of the control conditions of the agents that contribute to a non-aggregative outcome such as anthropogenic climate change. Control is, however, not only a condition for the application of the no-harm principle but also of the notion of domination. Arguably, control is the most fundamental feature that distinguishes agents from non-agents and is, therefore, a *necessary* condition of moral responsibility. A mountain, a tree or a fish cannot bear moral responsibility. Only agents, that is, beings that *control* their actions can. We can, thus, conclude at this point that the dominating party as well is not made up by individual agents as they lack the necessary control over the normatively relevant outcomes while the group of agents together is in full control. As a result, the dominating party is made up by the group of emitters. Anthropogenic climate change is not a form of individual but of *collective* domination.

V.

Conclusion

So, where are we now? I have set out in this dissertation to develop a Kantian political theory of anthropogenic climate change. I argued in *Chapter One* that this is necessary because only such a theory can deal with the type of challenge that anthropogenic climate change poses while the established normative theories fail to do so. I then went on in *Chapter Two* to introduce the outline of a Kantian political theory. Doing so allowed me to introduce the main thesis of this dissertation. It is my contention that, from a Kantian political theory standpoint, anthropogenic climate change must be conceived of as a form of collective domination. In the remainder of *Chapter Two*, I argued that the relations established between agents via the real possibility of human-induced climatic changes can be understood in a sense amenable to a Kantian notion of domination. Even though the complex and highly mediated causal relations are beyond the grasp of any single human mind, they can nevertheless be understood as embodying a form of prevalence of the will of some over the will of others. We saw this prevalence manifested, for example, in the growing number of people who are forced to leave their homes and migrate because of the climate changes caused by massive greenhouse gas emissions. In *Chapter Three*, I then went on to demonstrate that while we can apply the notion of force to anthropogenic climate change, the relations that the possibility of human-induced climatic changes establishes between agents are different from the traditional cases of domination. Traditionally, we think of domination as a relationship between clearly identifiable individual agents. This is different for human-induced climatic changes, because individual agents cannot bring about these changes alone; therefore, no individual agent can be said to dominate someone else in this respect. However, those who indeed have the option to do so are groups of agents. By engaging with a widely shared view in individual climate ethics that anthropogenic climate changes can be analysed as an individual wrongdoing, I eventually demonstrated why this is mistaken. Anthropogenic climate change is a form of collective domination. It is a wrong that is, in a substantive sense, committed by *us*.

A key aim of this dissertation was to prove the scope and potential of Kantian republican thinking in the face of new challenges such as anthropogenic climate change. I am confident that I was able to make significant steps towards developing the normative

fundamentals of a Kantian political theory that is fit for the Anthropocene. I am optimistic as well that I was able to demonstrate why such a political theory, adequately framed, is needed to address the challenges raised by anthropogenic climate change. If I am right, then delving into the intricacies of the disturbing question indeed results in a call for a considerable reorientation of our climate activism and a challenge to the significant rise of scepticism about democracy that has been observed in recent years.³⁶⁰ Only by establishing transnational democratic structures can the fundamental political wrong of domination be overcome. The alternative we face, according to a Kantian political theory of anthropogenic climate change, can be stated starkly as this: While being absorbed in restless efforts to overcome the wrong of anthropogenic climate change as we conceive it, according to whatever ethical theory we hold, we may indeed be complicit in perpetuating long-standing and deeply engrained structures of global domination.

Now, what lies in front of us? While I aimed to outline the normative fundamentals of a Kantian political theory, many important questions raised by such an account could not be answered here. One of the most significant challenges is hidden behind the deliberately vague formulation of ‘transnational democratic structures’ I used throughout the dissertation to refer to the type of structures that would allow us to overcome relations of domination. It is, of course, all but obvious what such encompassing structures may look like and what democracy on a global level amounts to.³⁶¹ However, what anthropogenic climate change places on the agenda is not only the question of transnational democracy. In addition, it raises the issue of transtemporal or transgenerational democracy. We already know that the processes we collectively set into motion every day for the foreseeable future are likely to yield their most severe consequences in the mid- to long-term future. Future generations will be forced to bear the brunt of our actions and inactions. Important contributions have been put forward to address the issues involved in transtemporal democratic representation, but much remains to be investigated.³⁶² This brings me back to one key aspect of a Kantian political theory of anthropogenic climate change upon which my dissertation did not touch: the question of the dominated party (ELEMENT 3). While it

³⁶⁰ See *Introduction*, 5f.

³⁶¹ For an elaborate attempt to spell out the requirements of such a structure as called for from a Kantian republican perspective of non-domination, see Niederberger 2009, Part II, esp. Ch. 7.

³⁶² For a comprehensive overview and discussion of the issues that the idea of ‘institutions for future generations’ raise, as well as attempts that have been made to realise such structures, see González-Ricoy/Gosseries 2016.

seems relatively easy to identify those who have been dominated by climate change in contemporary times, the same does not hold with respect to future persons. Modifying ELEMENT 3 to apply to future persons includes some of the most intricate theoretical challenges. The most well-known challenge is the so-called non-identity problem. Without going into detail, it is clear from the definition of the notion of domination—which entails the comparative notion of *changing* the option-sets of other agents (positionality condition)—that this problem applies equally to it, at least at first glance. Again, it is my contention that a Kantian political theory holds out the hope of coping with this difficulty. It may indeed be able to so, I claim, because in a Kantian political theory, anthropogenic climate change must be conceptualised not only as a relationship of domination *by a collective* but by a collective *over a collective*, that is, future generations. This is necessary because of the specific kind of solution such a theory proposes to the political wrong of domination: a democratic representation of future generations.

Future research into a Kantian political theory of anthropogenic climate change must address some of these issues. It is important to note, however, that if the framing I proposed for the challenge of anthropogenic climate change is adequate, then I can see no alternative to such an account. If we want to overcome the political wrong of domination in one of its most recent faces, then we must find solutions to these questions. I hope that this dissertation contributes to this endeavour.

Literature

- Adger, Neil W.; Arnell, Nigel; Black, Richard; Dercon, Steffen; Geddes, Andrew; Thomas, David (2011), *Foresight: Migration and global environmental change* (foresight reports). London: The Government Office for Science. Retrieved from: <https://www.gov.uk/government/publications/migration-and-global-environmental-change-future-challenges-and-opportunities>.
- Adger, Neil W.; Nicholson-Cole, Sophie (2011), 'Ethical dimensions of adapting to climate change-imposed risks', in Denis G. Arnold (ed.), *The Ethics of Global Climate Change*, Cambridge: Cambridge University Press, 255-71.
- Agarwahl, Anil; Narain, Sunita (2003 [1991]), *Global Warming in an Unequal World. A Case of Environmental Colonialism* (Centre for Science and Environment, New Delhi). Retrieved from: <http://www.indiaenvironmentportal.org.in/files/GlobalWarming%20Book.pdf>, last access: 8 January 2020.
- Alamassi, Ben (2012), 'Climate Change and the Ethics of Individual Emissions: A Response to Sinnott-Armstrong', *Perspectives. International Postgraduate Journal of Philosophy* 4, 4–21.
- Alvarez, Maria (2017), 'Reasons for Action. Justification, Motivation, Explanation', *The Stanford Encyclopedia of Philosophy* (Winter 2017 edition), Edward N. Zalta (ed.), 1-42. URL = <https://plato.stanford.edu/archives/win2017/entries/reasons-just-vs-expl/> (last access: 28 December 2019).
- Allingham, Michael (2002), *Choice Theory. A Very Short Introduction*, New York: Oxford University Press.
- Anderson, Scott (2015), 'Coercion', *The Stanford Encyclopedia of Philosophy* (Summer 2015 edition), Edward N. Zalta (ed.), 1–76. URL <https://plato.stanford.edu/archives/sum2015/entries/coercion/> (last access: 31 December 2019).
- Andonova, Liliana B. ; Betsill, Michele M.; Bulkeley, Harriet (2009), 'Transnational Climate Governance', *Global Environmental Politics* 9 (2), 52–73.
- Attfield, Robin (2009), 'Mediated Responsibilities, Global Warming, and the Scope of Ethics', *Journal of Social Philosophy* 40 (2), 225–36.
- Aufrecht, Monica (2012), 'Climate Change and Structural Emissions: Moral Obligations at the Individual Level', *International Journal of Applied Philosophy* 25 (2), 201-13.

- Baatz, Christian (2014), 'Climate Change and Individual Duties to Reduce GHG Emissions', *Ethics, Policy & Environment* 17 (1), 1–19.
- Bäckstrand, Karin; Kuyper, Jonathan W.; Linnér, Björn-Ola; Lövbrand, Eva (2017), 'Non-state actors in global climate governance: from Copenhagen to Paris and beyond', *Environmental Politics* 26 (4), 561–579.
- Banks, Melany (2013), 'Individual Responsibility for Climate Change', *The Southern Journal of Philosophy* 51 (1), 42–66.
- Bartram, David (2015), 'Forced Migration and "Rejected Alternatives": A Conceptual Refinement', *Journal of Immigrant & Refugee Studies* 13(4), 439–56.
- Baylor, Johnson (2003), 'Ethical Obligations in a Tragedy of the Commons', *Environmental Values* 12, 271–87.
- Beckman, Ludvig; Page, Edward A. (2008), 'Perspectives on justice, democracy and global climate change', *Environmental Politics* 17 (4), 527–35.
- Bell, Derek (2011), 'Does Anthropogenic Climate Change Violate Human Rights?', *Critical Review of International Social and Political Philosophy* 14 (2), 99–124.
- Bentham, Jeremy (1977 [1776]), 'A Comment on the Commentaries and A Fragment on Government', in J. H. Burns and H. L. A. Hart, *The Collected Works of Jeremy Bentham*, London: The Athlone Press.
- Berlin, Isaiah (1958), *Two Concepts of Liberty*, Oxford: Oxford University Press.
- Berry, Brian (1999), 'Sustainability and Intergenerational Justice', in Dobson (1999), 93–117.
- Biermann, Frank; Lövbrand, Eva (eds.) (2019), *Anthropocene Encounters. New Directions in Green Political Thinking*, Cambridge: Cambridge University Press.
- Bodansky, Daniel (2001), 'The History of the Global Climate Change Regime', in Urs Luterbacher and Detlef Sprinz (eds.), *International Relations and Global Climate Change*, Cambridge: Massachusetts Institute of Technology Press, 23–40.
- Bohman, James (2015), 'Domination, Global Harms, and Injustice', in Barbara Bucknix Jonathan, Trejo-Mathys and Timothy Waligore (eds.), *Domination and Global Political Justice*, Abington: Routledge, 71–87.
- Booth, Carol (2012), 'Bystanding and Climate Change', *Environmental Values* 21, 397–416.
- Briggs, R. A. (2019), 'Normative Theories of Rational Choice: Expected Utility', in *The Stanford Encyclopedia of Philosophy* (Fall 2019 Edition), Edward N. Zalta (ed.), 1–51, URL

- = <https://plato.stanford.edu/archives/fall2019/entries/rationality-normative-utility/> (last access: 31 December 2019).
- Broome, John (1992), *Counting the Cost of Global Warming. A Report to the Economic and Social Research Council*. Cambridge: The White Horse Press.
- Broome, John (2012), *Climate Matters*. New York: W.W. Norton & Company, Inc.
- Byrd, Sharon B.; Hruschka, Joachim (2010), *Kant's Doctrine of Right. A Commentary*, Cambridge: Cambridge University Press.
- Caney, Simon (2005), 'Cosmopolitan Justice, Responsibility, and Global Climate Change', *Leiden Journal of International Law* 18, 747–75.
- Caney, Simon; Gardiner, Stephen; Jamieson, Dale; Shue, Henry (eds.) (2010), *Climate Ethics. Essential Readings*, New York: Oxford University Press.
- Caney, Simon (2010), 'Climate Change, Human Rights, and Moral Thresholds', in Stephen Humphreys (ed.), *Human Rights and Climate Change*, Cambridge (U.K.): Cambridge University Press, 69–70.
- Caney, Simon (2012), 'Just Emissions', *Philosophy & Public Affairs* 40 (4), 255–300.
- Caney, Simon (2014), 'Two Kinds of Climate Justice: Avoiding Harm and Sharing Burdens', *The Journal of Political Philosophy* 22 (2), 125–49.
- Chan, Sander; Van Asselt, Harro; Hale, Thomas et al. (2015), 'Reinvigorating international climate policy: a comprehensive framework for effective nonstate action', *Global Policy* 6 (4), 466–73.
- Clapp, Jennifer (1998), 'The Privatization of Global Environmental Governance: ISO 14000 and the Developing World', *Global Governance* 4, 295–316.
- Christidis, Nikolaos; Herring, Stephanie; Hoell, Andrew; Kossin, James; Schreck, Carl; Stott, Peter (2018), 'Explaining Extreme Weather Events 2016 From a Climate Perspective', *Special Supplement to the Bulletin of the American Meteorological Society* 99 (1).
- Coward, Harold; Hurka, Thomas (1993), *Ethics and Climate Change. The Greenhouse Effect*, Waterloo (Ontario): Wilfrid Laurier University Press.
- Crutzen, Paul, Grinevald, Jacques, McNeill, John, Steffen, Will (2011), 'The Anthropocene. Conceptual and Historical Perspectives', in *Philosophical Transactions of the Royal Society* 369, 842–67.
- De-Shalit, Avner; Wolff, Jonathan (2007), *Disadvantage*, New York: Oxford University Press.

- Dobson, Andrew (1999), *Fairness and Futurity. Essays on Environmental Sustainability and Social Justice*, New York: Oxford University Press.
- Dooley, Kate; Okereke, Chukwumerije (2010), 'Principles of justice in proposals and policy approaches to avoided deforestation: Towards a post-Kyoto climate agreement', *Global Environmental Change* 20, 82–95.
- Drysek, John S.; Pickering, Jonathan (2018), *The Politics of the Anthropocene*, Oxford: Oxford University Press.
- Ellis, Erle C. (2018), *Anthropocene. A Very Short Introduction*, Oxford: Oxford University Press.
- Erdal, Marta Bivand; Oeppen, Ceri (2018), 'Forced to leave? The discursive and analytical significance of describing migration as forced and voluntary', *Journal of Ethnic and Migration Studies* 44 (6), 981–998.
- Eshleman, Andrew (2016), 'Moral Responsibility', *The Stanford Encyclopedia of Philosophy* (Winter 2016 edition), Edward N. Zalta (ed.), 1-34. URL = <https://plato.stanford.edu/entries/moral-responsibility/> (last access: 31 December 2019).
- Esser, Andrea (2016a), 'Wille', in Stefano, Bacin, Georg Mohr, Stefan Stolzenberg und Marcus Willaschek (eds.), *Kant-Lexikon*, Berlin/Boston: De Gruyter.
- Esser, Andrea (2016b), 'Willkür', in Stefano, Bacin, Georg Mohr, Stefan Stolzenberg und Marcus Willaschek (eds.), *Kant-Lexikon*, Berlin/Boston: De Gruyter.
- Falkner, Robert (2013), *The Handbook of Global Climate and Environment Policy*, Chichester: Wiley-Blackwell.
- Falkner, Robert (2016), 'The Paris Agreement and the New Logic of International Climate Politics', *International Affairs* 92, 1107–25.
- Farbotko, Carol (2010), 'Wishful sinking. Disappearing islands, climate refugees and cosmopolitan experimentation', *Asia Pacific Viewpoint* 51 (1), 47–60.
- Ferretti, Maria Paola (2016), 'Risk Imposition and Freedom', *Politics, Philosophy & Economics* 15 (3), 261–79.
- Fischer, Anne-Kathrin; Goerres, Achim (2018), 'Die politische Psychologie des Risikos. Die Bedeutung von Politik für die Konstruktion und Wahrnehmung von Risiken im 21sten Jahrhundert', *UNIKATE. Berichte aus Forschung und Lehre* 52, 50 – 57.

- Fittich, Melvin (2015), 'Intensional Logic', in *The Stanford Encyclopedia of Philosophy* (Summer 2015 Edition), Edward N. Zalta (ed.), 1–59, URL = <http://plato.stanford.edu/archives/sum2015/entries/logic-intensional/> (last access: 31 December 2019).
- Flikschuh, Katrin (2000), *Kant and Modern Political Philosophy*, Cambridge: Cambridge University Press.
- Flikschuh, Katrin (2012), 'Elusive Unity: The General will in Hobbes and Kant'. *Hobbes Studies* 25, 21–42.
- Flikschuh, Katrin (2015), 'Human Rights in a Kantian Mode. A Sketch', in Rowan Cruft, Matthew Liao and Massimo Renzo (eds.), *Philosophical Foundations of Human Rights*, Oxford: Oxford University Press, 653–70.
- Forst, Rainer (2015), 'Transnational Justice and Non-Domination. A Discourse-Theoretical Approach', in Barbara Bucknir Jonathan, Trejo-Mathys and Timothy Waligore (eds.), *Domination and Global Political Justice*, Abington: Routledge, 88–111.
- Fragnière, Augustin (2016), 'Climate change and individual duties', *WIREs Climate Change* 7, 798–814.
- Gardiner, Stephen M. (2004), 'Ethics and Global Climate Change', *Ethics* 114, 555–600.
- Gardiner, Stephen M. (2006), 'A Perfect Moral Storm: Climate Change, Intergenerational Ethics and the Problem of Moral Corruption', *Environmental Values* 15 (3), 397–413.
- Gardiner, Stephen M. (2010), 'Ethics and Climate Change: An Introduction', *WIREs Climate Change* 1, 54–66.
- Gehrmann, Jan; Niederberger, Andreas (2020), 'Kommt die Demokratie mit dem Klimawandel an ihre Grenzen?', in Jan Gehrmann, Ruben Langer and Andreas Niederberger, *Klimawandel und Ethik*, Paderborn: Mentis, 219–49.
- Gemenne, François; Ionesco, Dina; Mokhnacheva, Daria (2017), *Atlas der Umweltmigration*, München: oekom.
- Gesang, Bernward (2011), *Klimaethik*, Berlin Suhrkamp.
- Gesing, Friederike; Herbeck, Johannes; Klepp, Slija (2014), 'Denaturalizing Climate Change. Migration, Mobilities and Space', *artec-paper* Nr. 200 (Dezember 2014) (artec Forschungszentrum Nachhaltigkeit, Universität Bremen).
- Gibson, Mary (1985), *To Breathe Freely. Risk, Consent, and Air*, Totowa: Rowman & Allanheld.

- González-Ricoy, Iñigo; Gosseries, Alex (2016), *Institutions for Future Generations*, Oxford: Oxford University Press.
- Gosseries, Axel; Meyer, Lukas (2009), *Intergenerational Justice*, New York: Oxford University Press.
- Gowans, Chris (2018), Moral Relativism, in *The Stanford Encyclopedia of Philosophy* (Summer 2018 Edition), Edward N. Zalta (ed.), 1–58, URL = <https://plato.stanford.edu/archives/sum2018/entries/moral-relativism/> (last access: 31 December 2019).
- Griffin, James (1996), *Value Judgement: Improving our Ethical Beliefs*, Oxford: Oxford University Press.
- Gupta, Joyeeta (2010), 'A history of international climate change policy', *WIREs Climate Change* 5, 636–53.
- Habermas, Jürgen (2009 [1983]), 'Diskursethik. Notizen zu einem Begründungsprogramm', in Jürgen Habermas, *Diskursethik* (Philosophische Texte, Studienausgabe in fünf Bänden, Band 3), Berlin: Suhrkamp, 31-115.
- Habermas, Jürgen (1992), *Faktizität und Geltung*, Frankfurt: Suhrkamp.
- Habermas, Jürgen (2019), *Noch einmal: Zum Verhältnis von Moralität und Sittlichkeit* (Lecture held at the Goethe-University, Frankfurt am Main, on 19 June 2019), retrieved from: https://www.normativeorders.net/media/images/Programme/2019_Programme/Juergen%20Habermas_Moralitaet%20und%20Sittlichkeit.pdf (last access: 24 December 2019).
- Hansson, Sven-Ove (1989), 'Dimensions of Risk', *Risk Analysis* 9 (1), 107–12.
- Hansson, Sven-Ove (1993), 'The False Promises of Risk Analysis', *Ratio* 6, 16–26.
- Hansson, Sven-Ove (1996), 'What is Philosophy of Risk?', *Theoria* 62 (1-2), 169–86.
- Hansson, Sven-Ove (2003), 'Ethical Criteria for Risk Acceptance', *Erkenntnis* 59 (3), 291–309.
- Hansson, Sven-Ove (2012), 'A Panorama of the Philosophy of Risk', in Sabine Roeser, Ra- faela Hillerbrand, Per Sandin and Martin Peterson (eds.), *Handbook of Risk Theory*, Dordrecht: Springer, 28–54.
- Hansson, Sven-Ove (2013), *The Ethics of Risk. Ethical Analysis in an Uncertain World*, Basingstoke/New York: Palgrave Macmillan.
- Hayenhjelm, Madeleine; Wolff Jonathan (2012), 'The Moral Problem of Risk Impositions. A Survey of the Literature', *European Journal of Philosophy* 20 (S1).

- Hartzell-Nichols, Lauren (2011), 'Responsibility for meeting the costs of adaptation', *WIREs Climate Change* 2, 687–700.
- Hegel, Georg Wilhelm Friedrich (1991 [1820]), 'Elements of the Philosophy of Right', in Allen W. Wood (ed.), *G. W. F. Hegel. Elements of the Philosophy of Right* (trans. by H. B. Nisbet), Cambridge: Cambridge University Press.
- Hiller, Avram (2011a), 'Morally Significant Effects of Ordinary Individual Actions', *Ethics, Policy & Environment* 14 (1), 19–21 .
- Hiller, Avram (2011b), 'Climate Change and Individual Responsibility', *The Monist* 94 (3), 349–68.
- Hitchcock, Christopher (2018), 'Causal Models', *The Stanford Encyclopedia of Philosophy* (Fall 2018 edition), Edward N. Zalta (ed.), 1-40, URL = <https://plato.stanford.edu/entries/causal-models/> (last access: 31 December 2019).
- Huber, Jakob (2017), 'Cosmopolitanism for Earth Dwellers: Kant on the Right to be Somewhere', *Kantian Review* 22 (1), 1–25.
- Hulme, Mike (2009), *Why We Disagree About Climate Change*, Cambridge: Cambridge University Press.
- Humphreys, Stephen (2010), *Human Rights and Climate Change*, New York: Cambridge University Press.
- Hutter, Alex (2016), 'Angeborene Freiheit', in Stefano, Bacin, Georg Mohr, Stefan Stolzenberg und Marcus Willaschek (eds.), *Kant-Lexikon*, Berlin/Boston: De Gruyter.
- IPCC (2014), *Climate Change 2014: Synthesis Report. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Core Writing Team, R.K. Pachauri and L.A. Meyer (eds.)]. IPCC, Geneva, Switzerland.
- IPCC (2018), *Global Warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty* [Masson-Delmotte, V., P. Zhai, H.-O. Pörtner, D. Roberts, J. Skea, P.R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J.B.R. Matthews, Y. Chen, X. Zhou, M.I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, and T. Waterfield (eds.)]. In Press.

- Issacs, Tracy (2006a), 'Collective Moral Responsibility and Collective Intention', *Midwest Studies in Philosophy* XXX, 59–73.
- Isaacs, Tracy, (2006b), 'Individual Responsibility for Collective Wrongs', in Joanna Harrington, Michael Milde, Richard Vernon (eds.), *Bringing Justice to Power. The Prospects of the International Criminal Court*, Montréal: Mc Gill-Queen's University Press, 167–90.
- Isaacs, Tracy (2011), *Moral Responsibility in Collective Contexts*, Oxford: Oxford University Press.
- Jackson, Frank (1997), 'Which Effects?', in Jonathan Dancy (ed.), *Reading Parfit*, Oxford: Blackwell, 42–53.
- Jamieson, Dale (1992), 'Ethics, Public Policy, and Global Warming', *Science, Technology & Human Values* 17 (2), 139–53.
- Jordan, Andrew; Huitema, Dave; Hildén, Mikael et al. (2015), 'Emergence of polycentric climate governance and its future prospects', *Nature Climate Change* (5), 977–82.
- Justus, Julian; Macguire, Lynn A. (2008), 'Why Intrinsic Value is a Poor Basis for Conservationist Decisions', *BioScience* 58 (10), 910–11.
- Kant, Immanuel (1964 [1785]), 'Grundlegung zur Metaphysik der Sitten', in *Kant, Immanuel : Gesammelte Schriften* (Vol. 4). Eds.: Vol. 1-22 Preussische Akademie der Wissenschaften, Bd. 23 Deutsche Akademie der Wissenschaften zu Berlin, from Vol. 24 Akademie der Wissenschaften zu Göttingen. Berlin 1900ff.
- Kant, Immanuel (1996a [1785]), 'Groundwork of The Metaphysics of Morals', in Allen Wood and Paul Guyer (eds.), *Immanuel Kant. Practical Philosophy* (trans. by Mary Gregor), Cambridge: Cambridge University Press.
- Kant, Immanuel (1996b [1795]), 'Towards Perpetual Peace', in Allen Wood and Paul Guyer (eds.), *Immanuel Kant. Practical Philosophy* (trans. by Mary Gregor), Cambridge: Cambridge University Press.
- Kant Immanuel (1964 [1797]), 'Die Metaphysik der Sitten', in *Kant, Immanuel : Gesammelte Schriften* (Vol. 6). Eds.: Vol. 1-22 Preussische Akademie der Wissenschaften, Bd. 23 Deutsche Akademie der Wissenschaften zu Berlin, from Vol. 24 Akademie der Wissenschaften zu Göttingen. Berlin 1900ff.

- Kant, Immanuel (1996c [1797]), 'The Metaphysics of Morals', in Mary Gregor (ed.), *Kant. The Metaphysics of Morals* (trans. by Mary Gregor), Cambridge: Cambridge University Press.
- Karnein, Anja (2015), 'Climate Change and Justice between Non-Overlapping Generations'. *Global Justice. Theory Practice Rhetoric* 8 (2), 43–65.
- Kernohan, Andrew (2011), 'Individual Acts and Accumulative Consequences', *Philosophical Studies: An International Journal for Philosophy in the Analytic Tradition* 97 (3), 343–66.
- Killoren, David; Bekka, Williams (2012), 'Group Agency and Overdetermination', *Ethical Theory and Moral Practice* 16, 295–307.
- Kingston, Ewan; Sinnott-Armstrong, Walter (2018), 'What's wrong with joyguzzling?', *Ethical Theory and Moral Praxis* 21 (1), 169–186.
- Kment, Boris (2017), 'Varieties of Modality', in The Stanford Encyclopedia of Philosophy (Spring 2017 Edition), Edward N. Zalta (ed.), 1-42, URL = <https://plato.stanford.edu/archives/spr2017/entries/modality-varieties/> (last access: 31 December 2019).
- Kumar, Rahul (2003), 'Who can be wronged?', *Philosophy & Public Affairs* 31 (2), 99–118.
- Kumar, Rahul (2015), 'Risking and Wronging', *Philosophy & Public Affairs* 43 (1), 27–51.
- Kutz, Christopher (2008), *Complicity: Ethics Law Collect Age: Ethics and Law for a Collective Age* (Cambridge Studies in Philosophy and Law), Cambridge: Cambridge University Press.
- Kreienbrink, Axel; Tangermann, Julian (2019), *Zur Prognose des Umfangs klimabedingter Migration* (Bundeszentrale für politische Bildung, Kurzdossier Migration und Klimawandel). Available at: <https://www.bpb.de/gesellschaft/migration/kurzdossiers/286829/zur-prognose-des-umfangs-klimabedingter-migrationen> (last access: 26. November 19).
- Langer/Niederberger (2018), 'Technische und Soziale Risiken', *UNIKATE. Berichte aus Forschung und Lehre* 52, 58–67.
- Lawford-Smith, Holly (2016), 'Climate Matters Pro Tanto, Does It Matter All-Things-Considered?', *Midwest Studies in Philosophy* XL, 129–42.
- Lichtenberg, Judith (2010), 'Negative Duties, Positive Duties, and the "New Harms"', *Ethics* 120, 557–578.

- List, Christian; Valentini, Laura (2016), 'Freedom as Independence', *Ethics* 126, 1043–74.
- MacLean, Douglas (1986), *Values at Risk*. Totowa: Rowman & Allanheld.
- Maniates, Michael F. (2001), 'Individualization: Plant a Tree, Buy a Bike, Save the World?', *Global Environmental Politics* 1 (3), 31–52.
- Martinsen, Franziska; Seibt, Johanna (2013), 'Climate Change and the Concept of Shared Ecological Responsibility', *Environmental Ethics* 35 (2), 163–87.
- Marvier, Michele (2012), 'The value of nature revisited', *Frontiers in Ecology and the Environment* 10 (5), 227.
- Maslin, Mark (2014), *Climate Change. A Very Short Introduction*, Oxford: Oxford University Press.
- Meckstroth, Christopher (2015), *Struggle for Democracy. Paradoxes of Progress and the Politics of Change*, Oxford: Oxford University Press.
- Meinhausen, Malte; Robiou du Pont, Yann (2017), 'Equitable mitigation to achieve the Paris Agreement goals', *Nature Climate Change* 7. Available at: <http://dx.doi.org/10.1038/nclimate3186>.
- Meinhausen, Malte; Robiou du Pont, Yann (2018), 'Warming assessments of the bottom-up Paris Agreement emission pledges'. *Nature Communications* 7. Available at: <https://doi.org/10.1038/s41467-018-07223-9>.
- Meyer, Lukas; Roser, Dominic (2010), 'Climate justice and historical emissions', *Critical Review of International Social and Political Philosophy* 13 (1), 229–53.
- Moellendorf, Darrel (2012), 'Climate Change and Global Justice', *WIRE's Climate Change* 3, 131–43.
- Moellendorf, Darrel (2015), 'Climate Change Justice', *Philosophy Compass* 10, 183–186.
- Morgan-Knapp, Christopher; Goodman, Charles (2015), 'Consequentialism, Climate Harm and Individual Obligations', *Ethical Theory and Moral Practice* 18, 177–90.
- Myers, Norman; Kent, Jennifer (1995), *Environmental Exodus. An Emergent Crisis in the Global Arena*, Washington, D.C.: Climate Institute of Washington. Available at: <http://climate.org/archive/PDF/Environmental%20Exodus.pdf> (last access: 1 January 2020).
- Neuteleers, Stijn (2010), 'Institutions Versus Lifestyle: Do Citizens Have Environmental Duties in Their Private Sphere?', *Environmental Politics* 19 (4), 501–17.

- Niederberger, Andreas (2009), *Demokratie unter Bedingungen der Weltgesellschaft? Normative Grundlagen legitimer Herrschaft in einer globalen politischen Ordnung*, Berlin/New York: De Gruyter.
- Niederberger, Andreas (2011), 'Freiheit und Recht. Zur philosophischen Bedeutung der Demokratie', *Philosophisches Jahrbuch* 118 (1), 21–38.
- Niederberger, Andreas (2013), 'Klimagerechtigkeit aus philosophischer Perspektive', in Matthias Dietz, Heiko Garrelts (eds.), *Die internationale Klimabewegung: Ein Handbuch*, Wiesbaden: Springer VS, 135–63.
- Niederberger, Andreas (2020), 'Die Idee öffentlicher Vernunft. Nochmals: Die Idee der öffentlichen Vernunft; Die Gesellschaft liberaler Völker: ihre öffentliche Vernunft (§ 6); Die öffentliche Vernunft der Völker (§ 17)', in Henning Hahn, Reza Mosayebi (eds.) *John Rawls. Das Recht der Völker* (Klassiker Auslegen 70), Berlin/Boston: de Gruyter, 159–75,
- Niederberger, Andreas; Schink, Philip (eds.) (2013), *Republican Democracy. Liberty, Law and Politics*, Edinburgh: Edinburgh University Press.
- Nolt, John (2011a), 'Greenhouse gas emission and the domination of posterity', in Denis G. Arnold (ed.), *The Ethics of Global Climate Change*, Cambridge: Cambridge University Press, 60–76.
- Nolt, John (2011b), 'How Harmful Are the Average American's Greenhouse Gas Emissions?', *Ethics, Policy & Environment* 14 (1), 3–10.
- Nolt, John (2013), 'The Individual's obligation to relinquish unnecessary Greenhouse-Gas-Emitting Devices', *Philosophy and Public Issues (New Series)* 3 (1), 139–65.
- Norcross, Alastair (2005), 'Harming in Context', *Philosophical Studies* 123, 149–73.
- Nozick, Robert (1969), 'Coercion', in Sidney Morgenbesser (ed.), *Philosophy, Science, and Method. Essays in Honor of Ernest Nagel*, New York: St. Martin's Press.
- Nozick, Robert (1974), *Anarchy, State, and Utopia*, Oxford: Basic Books.
- Oberdiek, John (2012), 'The Moral Significance of Risking', *Legal Theory* 18 (3), 339–56.
- O'Connor, Timothy; Franklin, Christopher (2018), 'Free Will', *The Stanford Encyclopedia of Philosophy* (Fall 2018 edition), Edward N. Zalta (ed.) 1–77. URL = <https://plato.stanford.edu/entries/freewill/> (last access: 31 December 2019).

- Okereke, Chukwumerije (2008), *Global Justice and Neoliberal Environmental Governance. Ethics, Sustainable Development and International Co-operation*, Abingdon: Routledge.
- Oksala, Johanna (2016), 'Political Philosophy in the Era of Climate Change. Between Eco-Cosmopolitanism and the Green State', *Graduate Faculty Philosophy Journal* 37 (1), 1–20.
- Olsaretti, Serena (1998), 'Freedom, Force and Choice: Against the Rights-Based Definition of Voluntariness', *Journal of Political Philosophy* 6 (1), 53–78.
- Ottonelli, Valeria; Torressi, Tiziana (2013), 'When is Migration Voluntary?', *International Migration Review* 47 (4), 783–813.
- Page, Edward A. (2006), *Climate Change, Justice and Future Generations*, Cheltenham: Edward Elgar Publishing Limited.
- Parfit, Derek (1984), *Reasons and Persons*, New York: Oxford University Press.
- Parfit, Derek (2010 [1984]), 'Energy Policy and The Further Future', in Caney et al. (eds.) (2010).
- Paris Agreement (2015), *Paris Agreement, 12 December 2015*, 55 ILM 740, ratified by 186 parties (27 September 2019), in force since 4 November 2016. Available at: <https://undocs.org/FCCC/CP/2015/L.9/Rev.1> (last access: 31 December 2019).
- Partridge, Eric (2006 [1985]), *Origins. A Short Etymological Dictionary of Modern English*, London/New York: Routledge.
- Pattberg, Philipp (2007), *Private Institutions and Global Governance. The New Politics of Environmental Sustainability*, Cheltenham: Edward Elgar.
- Perry, Stephen (2003), 'Harm, History, and Counterfactuals', *Faculty Scholarship, Paper 1108*. Available at: http://scholarship.law.upenn.edu/faculty_scholarship/1108.
- Peterson, Martin (2013), *The Dimensions of Consequentialism. Ethics, Equality, and Risk*, New York City: Cambridge University Press.
- Pettit, Philip (1989), 'A Definition of Negative Freedom', *Ratio* 2, 153–68.
- Pettit, Philip (1991), 'Consequentialism', in Peter Singer (ed.), *A Companion to Ethics*, Oxford: Blackwell Publishers.
- Pettit, Philip (1997), *Republicanism. A Theory of Freedom and Government*, New York: Oxford University Press.

- Pettit, Philip (2013), 'Two Republican Traditions', in Andreas Niederberger, Philipp Schink (eds.), *Republican Democracy. Liberty, Law and Politics*, 169–205.
- Rendall, Matthew (2015), 'Carbon Leakage and the Argument From No Difference', *Environmental Values* 24, 535–52.
- Richmond, Anthony H. (1994), *Global Apartheid. Refugees, Racism, and the New World Order*, Oxford: Oxford University Press.
- Roser, Dominic; Seidel, Christian (2017), *Climate Justice. An Introduction*, Abingdon: Routledge.
- Rossi, Enzo; Sleat, Matt (2014), 'Realism in Normative Political Theory', *Philosophy Compass* 9 (10), 689–701.
- Roughley, Neil; Schälike, Julius (2016), 'Zur Bedeutung des Wollens in der Philosophie - Historisches, Systematisches und ein Blick auf die Beiträge', in Neil Roughley, Julius Schälike, *Wollen. Seine Bedeutung, seine Grenzen*, Münster: mentis, 13-42.
- Sandberg, Joakim (2011), "'My Emissions Make No Difference": Climate Change and the Argument from Inconsequentialism', *Environmental Ethics* 33 (3), 229–48.
- Schink, Philipp (2017), *Freiheit. Zeitgenössische Texte zu einer philosophischen Kontroverse*, Berlin: Suhrkamp.
- Schlosser, Markus (2015), 'Agency', *The Stanford Encyclopedia of Philosophy* (Fall 2015 Edition), Edward N. Zalta (ed.), 1-52, URL = <http://plato.stanford.edu/archives/fall2015/entries/agency/> (last access: 31 December 2019)
- Schuppert, Fabian (2017), 'Zur Ethik (intergenerationeller) Risikoauferlegung', *Jahrbuch für Wissenschaft und Ethik* 21 (1), 171-96.
- Schwenkenbecher, Anne (2014), 'Is there an obligation to reduce one's individual carbon footprint?', *Critical Review of International Social and Political Philosophy* 17 (2), 168–88.
- Shrader-Frechette, Kristin (1980), *Nuclear Power and Public Policy: The Social and Ethical Problems of Fission Technology*, Dordrecht: D. Reidel.
- Shrader-Frechette, Kristin (1985), *Risk Analysis and Scientific Method*, Dordrecht: D. Reidel.
- Shrader-Frechette, Kristin (1990), 'Perceived Risks Versus Actual Risks: Managing Hazards Through Negotiation', *Risk: Issues in Health and Safety* 2 (1), 341–63.
- Shue, Henry (1980), *Basic Rights. Subsistence, Affluence, and U.S. Foreign Policy*, Princeton: Princeton University Press.

- Shue, Henry (1993), 'Subsistence Emissions and Luxury Emissions', *Law & Policy* 15 (1), 40–59.
- Shue, Henry (1999), 'Global Environment and International Inequality', *International Affairs* 75 (3), 531–45.
- Shue, Henry (2010), 'Deadly Delays, Saving Opportunities. Creating a More Dangerous World?', in Caney et al. 2010.
- Henry Shue (2011), 'Human Rights, Climate Change, and the Trillionth Ton', in Denis Arnold (ed.), *The Ethics of Global Climate Change*, Cambridge: Cambridge University Press, 292–314.
- Shue, Henry (2015), 'Last Opportunities. Future Human Rights Generate Urgent Present Duties', in Marcelo Di Paola, Daanika Kamal (eds.), *Global Policy, Special Issue, Climate Change and Human Rights: The 2015 Paris Conference and the Task of Protecting People on a Warming Planet*. Available at: <https://www.globalpolicyjournal.com/projects/gp-e-books/climate-change-and-human-rights-2015-paris-conference-and-task-protecting-people> (last access 2 January 2020)
- Shue, Henry (ed.) (2016): *Climate Justice. Vulnerability and Protection*, Oxford: Oxford University Press.
- Siller, Peter (2010), 'Demokratie und Klimawandel: Ökologen als Vordenker einer Expertokratie?' (Grüne Akademie, Heinrich Böll Foundation). Available at: <https://www.boell.de/de/demokratie/akademie-postdemokratie-expertokratie-8729.html> (last access: 8 January 2020).
- Singer, Peter (2002), *One World. The Ethics of Globalisation*, New Haven: Yale University Press.
- Sinnott-Armstrong, Walter (2010), 'It's not my fault. Global Warming and Individual Moral Obligations', in Caney 2010 et al., 332–46.
- Sinnott-Armstrong, Walter (2015), 'Consequentialism', *The Stanford Encyclopedia of Philosophy* (Winter 2015), Edward N. Zalta (ed.), 1–43, URL = <http://plato.stanford.edu/archives/win2015/entries/consequentialism/> (last access: 31 December 2019).
- Skillington, Tracey (2015), 'Climate justice without freedom: Assessing legal and political responses to climate change and forced migration', *European Journal of Social Theory* 18 (3), 288–307.

- Spiekermann, Kai (2014), 'Small Impacts and Imperceptible Effects. Causing Harm with Others', *Midwest Studies in Philosophy* XXXVIII, 75–90.
- Stehr, Nico (2016), 'Exceptional Circumstances. Does Climate Change Trump Democracy?', *Issues in Science and Technology* Winter 2016 (National Academies of Sciences, Engineering, and Medicine. The University of Texas at Dallas, Arizona State University), 37–44.
- Thomson, Judith Jarvis (1986), *Rights, Restitution, and Risk. Essays in Moral Theory*, Cambridge (MA): Harvard University Press.
- Turton, David (2003), 'Conceptualising Forced Migration', *Refugee Studies Centre Working Paper* No. 12 (University of Oxford). Available at: <https://www.rsc.ox.ac.uk/files/files-1/wp12-conceptualising-forced-migration-2003.pdf> (last access: 1 January 2020).
- UNEP (2018), *The Emissions Gap Report 2018. United Nations Environment Programme*, Nairobi 2018. Retrieved from: http://wedocs.unep.org/bitstream/handle/20.500.11822/26895/EGR2018_FullReport_EN.pdf?sequence=1&isAllowed=y (last access: 11. December 2019).
- UNFCCC (1992), *United Nations Framework Convention on Climate Change*, 9. May 1992, 1771 U.N.T.S. 107, ratified by 197 parties (11 December 2019), in force since 21 March 1994. Available at: https://unfccc.int/files/essential_background/background_publications_htmlpdf/application/pdf/conveng.pdf (last access: 2 January 2020).
- UN (2018), United Nations General Assembly 73/12: *Report of the United Nations High Commissioner for Refugees. Global Compact on Refugees*, U.N. GAOR, 73th Sess., pt. 2, Supp. No. 12, U.N. Doc. A/7/12 (Part II) (2018). Retrieved from: [https://undocs.org/A/73/12\(PartII\)](https://undocs.org/A/73/12(PartII)) (Last access: 1 January 2020).
- Valentini, Laura (2012), 'Ideal- vs. Non-ideal Theory. A Conceptual Map', *Philosophy Compass* 7 (9), 654–64.
- Van de Poel, Ibo; Fahlquist, Jessica Nihlén; Doorn, Neelke; Zward, Sjoert; Royackers, Lambèr (2011), 'The Problem of Many Hands. Climate Change as an Example', *Science and Engineering Ethics* 18 (1), 49–67.
- Vanderheiden, Steven (2008), *Atmospheric Justice. A Political Theory of Climate Change*, Oxford: Oxford University Press.

- Van der Ven, Hamish; Bernstein, Steven; Hoffmann, Matthew (2017), 'Valuing the Contributions of Nonstate and Subnational Actors to Climate Governance', *Global Environmental Politics* 17 (1), 1–20.
- Van Hear, Nicholas (1998), *New Diasporas. The Mass Exodus, Dispersal and Regrouping of Migrant Communities*, London: University College London Press.
- Van Hear, Nicholas (2009), 'Managing Mobility for Human Development: The Growing Salience of Mixed Migration' (together with Rebecca Brubaker and Thais Bessa), *UN Development Programme. Human Development Research Paper 2009/20*.
- Waldron, Jeremy (1996), 'Kant's Legal Positivism', *Harvard Law Review* 109 (7), 1535–66.
- Waldron, Jeremy (2006), 'Kant's Theory of the State', in Pauline Kleingeld (ed.), *Perpetual Peace and other Writings on Politics, Peace, and History*. New Haven, CT: Yale University Press.
- Wertheimer, Alan (2012), 'Voluntary Consent. Why a Value-Neutral Concept Won't Work', *Journal of Medicine and Philosophy* 37, S. 226–54.
- Weston, Anthony (1985), 'Beyond Intrinsic Value. Pragmatism in Environmental Ethics', *Environmental Ethics* 7 (4), 321–39.
- Wimsatt, William C. (2007), *Re-engineering philosophy for limited beings. Piecewise approximation to reality*, Cambridge (MA): Harvard University Press.
- Wooram, Lee (2018), 'Willing the End Means Willing the Means: An Overlooked Reading of Kant', *Ergo. An Open Access Journal of Philosophy* 5 (16). Available at: <https://quod.lib.umich.edu/e/ergo/12405314.0005.016/--willing-the-end-means-willing-the-means-an-overlooked?rgn=main;view=fulltext#N1> (last access: 31. December 2019).

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