

# Libertarianism and Climate Change

Olle Torpman



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## Abstract

In this dissertation, I investigate the implications of libertarian morality in relation to the problem of climate change. This problem is explicated in the first chapter, where preliminary clarifications are also made. In the second chapter, I briefly explain the characteristics of libertarianism relevant to the subsequent study, including the central non-aggression principle. In chapter three, I examine whether our individual emissions of greenhouse gases, which together give rise to climate change, meet this principle. I do this based on the assumption that we are the legitimate owners of the resources we use in those activities. In the fourth chapter, I question this assumption and scrutinize libertarianism's restrictions on appropriations of climate-relevant resources, which leads me to distinguish between some different versions of the libertarian view. Toward the end of the chapter, I also examine libertarianism's answer to the political question regarding how emission rights should be distributed. The fifth chapter investigates libertarianism's verdicts for mere risks of infringement, as stemming from people's emissions and acts of appropriations. In chapter six, I investigate the libertarian right to self-defense against both the effects of climate change and other people's climate-relevant activities. In chapter seven, I discuss two intergenerational issues related to climate change: what libertarianism says concerning future generations and how libertarianism might deal with the problem of historical emissions. The eighth chapter explores the implications of libertarianism regarding collective moral wrongdoing in connection to climate change. In chapter nine, I take a look at the libertarian room for governmental responses for tackling climate change. The tenth and final chapter is a summary. The overall conclusion of the dissertation is that libertarianism recommends that we reduce our emissions and decrease our extraction of natural resources such as forests and fossil fuels. Furthermore, governments are permitted to undertake some quite substantial actions in order to fight the causes of climate change. I end with some bottom-up reflections on what these conclusions might say about the plausibility of libertarianism. I claim that although libertarianism after all manages to explain some of our moral intuitions regarding climate change, it is questionable whether libertarianism's explanation is better than those offered by alternative moral theories.

**Keywords:** *libertarianism, self-ownership, rights, individualism, emissions, climate change, boundary-crossing, infringement, compensation, rectification, appropriation, self-defense, future generations.*

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# Preface

In October 2013, my friend and colleague Daniel Ramöller told me about a graduate course on libertarianism. It was to be given at Lund University at the end of the month. I decided to join Daniel and successfully applied to the course. At the day of our departure to Lund, however, a technical problem had me stuck in the subway on my way to the train station in Stockholm. And once I arrived there, the train to Lund departed right before my eyes. I tried to get on board, but the doors were locked. Daniel was waving from inside the train, leaving me and Stockholm for Lund and libertarianism.

I was upset and decided to cancel my enrollment in the course. Luckily, however, Daniel persuaded me over the phone to give it one more try. If he had not done that, I would most certainly never have written this – or perhaps any – dissertation. Indeed, prior to October 2013, the draft to my dissertation was nothing but a mishmash of notes on topics such as moral uncertainty, ethical subjectivism, environmental pragmatism, the value of humanity's survival, and utilitarianism on climate change. It did not look very promising, and I seriously considered giving up.

Except for Daniel, who has also commented on almost every word in this dissertation, there are many people I want to thank for helping me throughout this process. One of them is Marcus Agnafors, who was the teacher of the course in Lund. Undoubtedly, my final supervisors, Björn Eriksson and Torbjörn Tännsjö, merit the greatest of acknowledgements. Without them I would never have been even close to finishing. I am also very thankful to Jonas Olson and Gustaf Arrhenius, who were my initial supervisors. Without them I would never have been prepared for the intense work that was forthcoming with the final supervisors.

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Indirectly, I have received a lot of help from Johan Gustafsson and Nicolas Espinoza, who have supported me on my excluded work on moral uncertainty. I also wish to thank Eric Brandstedt, Åsa Burman, Göran Duus-Otterström, Helena Röcklinsberg, Håkan Salwén, Per Sandin and Frans Svensson, with whom I have had many valuable discussions about the ethical underpinnings of climate change and environmental issues in general. During my years as a graduate student, I have also had the opportunity to teach – mainly first-year students at Stockholm University, Södertörn University and Uppsala University. There are hundreds of students I wish to thank for teaching me things no teacher could have done.

I moreover wish to thank Staffan Carlshamre, Annika Diesen, Kjell Svensson and Emma Runestig for important administrative support – especially during the final phases of my work on this dissertation. Last but not least, I also want to thank my close friends and family. Most especially my beloved Anna, my sister Ida, my mother Eva, my father Tommy and his wife Agneta. Without them, I obviously would not even have existed.

# 1. Introduction

One of the most debated topics in international politics concerns climate change. This dissertation is devoted to the problems of climate change considered from a moral point of view. More precisely, it is an investigation on the basis of a *libertarian morality*. The major goal is to uncover libertarianism's implications with regard to the problems of climate change.

In this introductory chapter, I map out the foundation for the examination that will follow: first, I briefly describe the scientific and political background of climate change; second, I clarify the relevance of ethics to climate change; third, I motivate the choice for investigating the implications of libertarianism for climate change, and; fourth, I make some terminological clarifications and spell out the subsequent plan of this dissertation.

## 1.1. The Scientific and Political Background of Climate Change

The Earth's climate is changing: the average temperature is increasing, the polar ice-caps are melting and the sea levels are rising. One of the most salient aspects of climate change concerns global warming, and the key cause behind this are the increasing amounts of greenhouse gases in the atmosphere.<sup>1</sup> A vast majority of scientists now agree that human activity is the main contributing factor, primarily through our burning of fossil fuels and our depleting land use.<sup>2</sup> A majority of the world's climate scientists also agree that there is a fixed limit with regard to the volume of greenhouse gases that the climate system can handle before triggering changes that threaten human and nonhuman life.

The full picture of the climate is very complex, as most of the factors in the environment are interconnected; a disturbance of one may trigger a disturbance of another. If, for instance, the intensity of the current depletion of the rainforests continues, its capacity for absorbing carbon dioxide will be reduced, which will advance global warming. There is also evidence pointing to the risk that further global warming will cause the rainforests to start dying, since they are incapable of handling more than a

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<sup>1</sup> The greenhouse gas mostly discussed is carbon dioxide. However, other greenhouse gases (e.g., water vapor, methane and ozone) have similar effects on the climate (thus their common "greenhouse" prefix). I do not differentiate between these gases in this dissertation. Whenever I speak of measures of greenhouse gases, I keep the widely used "carbon dioxide equivalents" in mind.

<sup>2</sup> See, for instance, IPCC (2014), IPCC (2007), Cook et al (2013) and Steffen et al (2007).

few degrees of rising temperatures. And if they start dying, they will emit carbon dioxide during their breakdown. Moreover, the permafrost in parts of Siberia and Canada is currently enclosing large amounts of methane gas – which is a significantly more potent greenhouse gas than carbon dioxide – that will be released were these areas to thaw. This will in turn give rise to a yet warmer climate and intensify the spin of the wheel. As regards the polar ice-caps, they reflect warming sunlight back to space, which helps cooling the planet. If these ice-caps keep melting, the reflection will diminish and add extra fuel to the warming of our planet.<sup>3</sup>

The main problem raised by these climatic changes is that their effects threaten things we value – such as human (and nonhuman) well-being and survival. These effects are today well-known: more people will die and suffer as extreme weather events (such as droughts, heat waves, hurricanes and typhoons) increase in number and intensity; the number of extreme wildfires are expected to increase due to the raised temperatures; important biophysical systems will destabilize and ecosystem services (such as pollination) will be lost; crops will fail more frequently worldwide due to more irregular rainfalls; species will be pushed to extinction as their habitats vanish; serious epidemics and diseases will spread more easily as the organisms that carry them thrive better in the hotter temperatures; and the world's famine situation will worsen.<sup>4</sup>

As summed up by a large group of scientists, “[t]he exponential growth of human activities is raising concern that further pressure on the Earth System could destabilize critical biophysical systems and trigger abrupt or irreversible environmental changes that would be deleterious or even catastrophic for human well-being”.<sup>5</sup> Furthermore, they claim, “[t]his is a profound dilemma, because the predominant paradigm of social and economic development remains largely oblivious to the risk of human-induced environmental disasters at continental to planetary scales”.<sup>6</sup>

On the whole, climate change poses a serious problem – perhaps the biggest problem ever faced by humankind. Unsurprisingly, we want to do something about it. This, in turn, raises a very interesting question: What should we do?

Many people seem to think that this question can be answered by the natural sciences alone, as those deliver the facts on how the climate works. Sure, thanks to the progress of the natural sciences, we are nowadays able to analyze climate change and understand its causes, and also identify the various outcomes it may yield. We are thereby given access to information regarding which practical measures might help us escape the outcomes we fear the most. We could, for example, forbid further deforestation or use of fossil fuels, restrict the extraction of coal, decrease cement production or put limits on individual consumption.

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<sup>3</sup> These are just a few and simplified examples. In reality, the problem is more complex. See, for instance, IPCC (2014), Rockström et al (2009) and Stern (2014).

<sup>4</sup> Moreover, these effects are in turn likely to give rise to and exacerbate already existing human conflicts. See, for instance, the different scenarios presented in IPCC (2014).

<sup>5</sup> Rockström et al. (2009: 4, footnote omitted). See also Stern (2014: 432).

<sup>6</sup> (Ibid.).

What is interesting, however, is that we have not yet come to any agreement on what to do about climate change. When I started my PhD studies in 2009, representatives from 193 countries gathered in Copenhagen in order to try and settle a world-wide agreement on a successor to the Kyoto protocol. The aim of the conference, convened by the United Nations Framework Convention for Climate Change, was to decide what should be done jointly to tackle issues related to climate change. The result of that conference is often described as a fiasco.

Fortunately, some things have changed for the better since then. For instance, the result of the climate conference in Paris in December 2015 may be regarded as a success. All 195 countries adopted the first ever universal, legally binding global climate agreement: To put the world on the track to avoid dangerous climate change by limiting global warming to well below 2°C.

Unfortunately, there are still widespread disagreements regarding the details of the preferred concrete actions – regarding exactly *what* the measures called for should consist of; exactly *how* these measures should be implemented; exactly *where* it should be done; exactly *who* should do what and/or pay for it; and exactly *when* it should be carried out. Moreover, some people want to go much further than the agreement settled so far; some even seem willing to sacrifice almost any economic value in order to stop climate change. Others want to reject the agreement completely in favor of a business-as-usual approach. Yet others prefer a middle road, focusing on measures for adapting to a new climate.

If the natural sciences alone could give us an answer to what we should do about climate change, then we would presumably have a solution already at hand. The reason why we actually do not is that the problem at hand is not solely a problem for the natural sciences.

## 1.2. The Relevance of Ethics to Climate Change

To answer the question of what to do about climate change, we not only need the natural sciences, but also the social sciences – such as the political and economic sciences – as well as law, psychology and philosophy. The problems of climate change are indeed interdisciplinary.

As regards the philosophical aspects of climate change, the 2014 IPCC report says that “[m]any areas of climate policy-making involve value judgements and ethical considerations”.<sup>7</sup> In a similar vein, the group of scientists referred to in the previous section claims that a solution to the problems of climate change “...involves normative judgments of how societies choose to deal with risk and uncertainty”.<sup>8</sup> Economist Nicholas Stern also argues that the risks of climate change “raise deep questions about ethical perspectives” (2014: 398).

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<sup>7</sup> See *Summary for Policy Makers* of Working Group 3.

<sup>8</sup> Rockström et al. (2009: 5).

These quotes all point to a core idea in moral philosophy: that it is not possible to infer normative conclusions from merely descriptive premises.<sup>9</sup> That is to say that without any additional normative input, the purely empirical data provided by the sciences cannot tell us what we should do about the climate situation. Indeed, *should* is a normative rather than descriptive concept.

This suggests that an answer as to what we should do about climate change calls for both a *normative ethical* inquiry regarding the norms and values on whose basis we should act, as well as an *applied ethical* investigation regarding which concrete practical measures must be undertaken in order to comply with these norms and values. Consequently, we need ethics to guide our actions via the empirical data provided by the sciences. Hence, the problems surrounding climate change are – at least in part – ethical problems.

However, ethicists have hitherto spent comparatively little time on the problems posed by climate change. This is not surprising, as the issues related to climate change have not been known for as long as other issues related to other fields – such as medical ethics or animal ethics, to name a few. Although the trend is changing, and the literature on the subject is growing immensely, there are presently many different views when it comes to the ethical issues related to climate change. Presumably, this partly has to do with uncertainties and difficulties in several instances in the ethical realm – not least at the normative and the applied levels, as mentioned above.

The main issue at the level of normative ethical discourse is about which (if any) underlying values and principles are correct – that is, whether what we should do depends ultimately on, for instance, maximization of happiness (or preference satisfaction), respect for people's autonomy (or rights), virtuous character traits, or something else. Hence, it is no surprise that adherents of different ethical views sometimes support different responses to climate change.<sup>10</sup> In any case, the different ethical bases are seldom made explicit in the public debate about climate change. Therefore, they appear to be insufficiently examined.

One salient issue at the level of the applied ethical discourse concerns what different ethical positions recommend in relation to climate change. Indeed, it is not obvious how we should proceed when applying our ethical theories in order to obtain climate action-guidance. The risk of making mistakes in application regarding the entailed recommendations of different ethical positions should not be underestimated. It is quite difficult to determine which climate actions will maximize happiness, respect individuals' rights or be what a virtuous person would choose, or anything like that.

Of course, even if every ethical issue surrounding climate change were to be solved, it remains an open question whether the required actions will be implemented by politicians, activists or whoever is in a position to do so. In the worst-case scenario, ethical progress will not have any impact at all in this regard. Nevertheless,

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<sup>9</sup> This idea is often labeled *Hume's Law* after Scottish philosopher David Hume (1711–1776).

<sup>10</sup> For more on this, see Broome (2012: 10).

although the ethical contribution to the problem of climate change is far from sufficient, it is still very important. A better understanding of the ethical aspects of climate change will at the very least give us extra means for solving the troubles it yields. Progress in climate ethics could indeed provide arguments for why we ought to act in one way rather than another.

My aim in this dissertation is to contribute to the climate ethical work that is needed. I do so by focusing on *one* influential basic moral theory: libertarianism. In short, libertarianism is the view that individuals have certain rights by virtue of their self-ownership, and that those rights are what fundamentally determine right action. The motive for investigating the implications of libertarianism regarding climate change may be further explicated.

### 1.3. Why Investigate Libertarianism's implications for Climate Change?

There are several things that make libertarianism interesting in connection to climate change. For one, many people share the libertarian core notion that individuals should be free to do whatever they want as long as they do not interfere with the freedoms and rights of others. Arguments based on this idea may be found here and there in the climate debate – perhaps mainly among right-wing politicians.

A separate, but related, rationale for investigating libertarianism's implications for the problems of climate change is that these problems have so far mainly been studied from consequentialist and welfare-based perspectives – perspectives denied by libertarianism. Thus, comparatively little has been said about libertarianism in connection to climate change. The few who have so far published on this topic will be brought up in due course in this dissertation.

Also, whenever something has been said about libertarianism and climate change, libertarianism has usually been taken to imply some kind of defense of things such as private property, free markets or businesses as usual – which are all closely linked to climate *inaction*. To quote Jonathan Adler, a libertarian law professor, “[c]onservative politicians, libertarian thinkers, and market-oriented policy experts typically argue that the best response to the risk of climate change is to do little or nothing” (2009: 297). One just needs to do an internet search on “libertarianism and climate change” or “libertarianism and global warming” to get an update on this trend.

One reason why libertarians have been relatively passive with regard to the problems of climate change, I surmise, is partially due to the inapt combination of libertarianism's typical disapproval of governmental actions, and the prevailing view that the problems of climate change can only be solved through governmental actions.<sup>11</sup>

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<sup>11</sup> See, for instance, Broome (2012: 36): “the problem can only be solved by governments”. See also Stern (2014: 415).

Actually, libertarians tend to think that solutions to problems must come freely from the people themselves, and not coercively from their governments.

However, this story may be a bit unfair. Even among the early modern libertarians, there was some awareness of the moral problems concerning air pollution (although people were mostly ignorant about the link between greenhouse gas emissions and climate change). In his book *New Liberty* (1973), pioneering libertarian Murray Rothbard devotes an entire chapter, “Conservation, Ecology, and Growth”, to environmental problems. There he specifically discusses air pollution:

The vital fact about air pollution is that the polluter sends unwanted and unbidden pollutants – from smoke to nuclear radiation to sulfur oxides – through the air and into the lungs of innocent victims, as well as onto their material property. All such emanations which injure person or property constitute aggression against the private property of the victims. Air pollution, after all, is just as much aggression as committing arson against another’s property or injuring him physically. Air pollution that injures others is aggression pure and simple. (1973: 319)

In connection to this, Rothbard quotes another early libertarian thinker, Robert Poole, who makes a similar observation in his “Reason and Ecology” (1972).<sup>12</sup> Poole first defines “pollution” as “the transfer of harmful matter or energy to the person or property of another, without the latter’s consent” (1972: 245). He then argues that “[a] libertarian society would be a full-liability society, where everyone is fully responsible for his actions and any harmful consequences they might cause” (1972: 253). Shortly thereafter, Robert Nozick – presumably the most well-known libertarian – characterized “pollution” as “the dumping of negative effects upon other people’s property such as their houses, clothing and lungs, and upon unowned things which people benefit from, such as a clean and beautiful sky” (1974: 77). On the basis of these passages, it might be tempting to conclude that libertarianism deems air pollution impermissible in general, and since greenhouse gas emissions are a form of air pollution, libertarianism deems greenhouse gas emissions impermissible too.

However, things are not that simple. Libertarianism focuses on *individual* actions. And greenhouse gas emissions differ from other air pollutions such as “nuclear radiation” and “sulfur oxides”. While individually caused pollution of the latter kinds might harm and damage people and their property, it is questionable whether our individual emissions of mere greenhouse gasses do so. In fact, climate change is the result of *joint* human emissions. Moreover, the harms and damages caused by our joint emissions are *synergy effects*: Thresholds and tipping points in the climatic system imply that the total effects of our joint emissions amount to more than the aggregated effects of our separate emissions.<sup>13</sup> Hence, it seems as if none of the

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<sup>12</sup> My quotations of Poole are taken from Rothbard (1973: 324-6).

<sup>13</sup> See IPCC (2014) and Rockström et al. (2009).

harms and damages caused by climate change are strictly speaking attributable to particular individuals.

This problem is highlighted by contemporary libertarian Matt Zwolinski (2015). He dubs it “the problem of *interconnectedness*”, which he thinks is raised against libertarianism by environmental pollutions in general:

[The] exclusive focus on the outcome of individual actions leaves many of the most serious problems posed by environmental pollution entirely unaddressed. [...] Any particular action by an individual, considered in itself, makes only a miniscule contribution to the overall problem. Either no one is harmed at all by such actions (the harm resulting only once the cumulative amount of pollution crosses a certain threshold), or the harm produced is minimal (becoming significant only when it is added up with all the other harms resulting from other individuals’ actions). Intuitively, a morality of individual rights ought to have something to say about actions of this sort. (2015: 16-17)

As I argue in this dissertation, libertarianism indeed does have something quite substantial to say about actions of this sort. I shall argue that the present-day preconceptions regarding libertarianism’s implications for climate change are mistaken, and that libertarianism actually gives us reasons for paying serious attention to climate change.

#### 1.4. Some Terminological Clarifications and the Plan of this Dissertation

Some basic terms should be clarified before we begin the investigation. In line with already established terminology, I use “climate action”, “climate response”, and “climate strategy” interchangeably to denote any available choice of action in regard to climate change. I also use “climate problem” as a broad term for denoting any set of intuitively undesired aspects of climate change as mentioned in the previous sections. I furthermore introduce some technical terms. To mention some of these, I use “climate-relevant activity” for any action (such as emissions of greenhouse gases or appropriations of natural resources) that might have an influence on the climate. Likewise, I use “climate-relevant resource” for any natural resource (such as fossil fuels, land, forests and atmospheric absorption capacity) of which use or appropriation might have an influence on the climate. I also use “climate-friendly” (“climate-unfriendly”) as a term for actions or implications that might mitigate (exacerbate) climate change. Other technical terms will be introduced and clarified in due course.

The outline of the dissertation is as follows. In chapter 2, I briefly explain the basics of libertarianism that are relevant to the subsequent study. In doing so, I try to stick to conceptions of the view as provided by its adherents. However, we shall see that some of its characteristics are open for interpretation. I focus on the so-called *non-aggression principle*, and make interpretations that best harmonize with the



libertarian rationale – the self-ownership thesis. Where there are unresolved controversies, I leave room for different versions of the view.

In chapter 3, I investigate whether our individual emitting activities meet the libertarian requirements as spelled out in chapter 2. The crucial task is to determine whether our emissions violate people's rights. This amounts to an examination of whether our individual emissions cross the boundaries (in a sense to be specified) of other people without their consent. I argue that some of our emissions cross the boundaries of some other people without their consent. Since the victims of our emissions are not (and cannot be) compensated, these emissions amount to rights-violations.

In chapter 4, I question whether the resources used in our emitting activities are legitimately appropriated. The task is to determine to what extent we are the legitimate owners of these resources. In doing so, I have to spell out some different versions of libertarianism. The differences come down to whether they provide any proviso for appropriations of external resources and, if so, what they take this proviso to require. Irrespective of these theoretical differences, I argue that these different versions yield some overlapping climate-friendly recommendations.

In chapter 5, I look at libertarianism's implications regarding risks connected to people's climate-relevant activities. I argue that libertarianism may judge mere risk exposures to be impermissible only insofar as they restrict people's negative liberty, or psychologically interfere with people, without the consent of these people. Moreover, I argue that risks may play a role in the motivation behind people's objections to the actions that produce them, and that risks may be a reason for performing self-defensive actions.

In chapter 6, I explore the scopes and limits of self-defense in view of climate change. I argue that libertarianism gives individuals the right to defend themselves against the effects of climate change and against wrongful climate-relevant activities of other people. Although the right to self-defense does not *per se* produce any argument against people's climate-relevant activities, it does offer an argument in support of actions that counter such activities. Moreover, the libertarian rationale behind the right to self-defense leaves room also for third-party intervention (discussed in chapter 9).

In chapter 7, I discuss libertarianism's verdicts on two intergenerational issues: (i) the moral standing of future generations, and (ii) the problems of historical emissions. With respect to (i), I argue that libertarianism may provide some, but only modest, protection for people belonging to future generations. With respect to (ii), I argue that, given the connection between the material wealth of the present rich, the previous industrialization in the rich countries and the excess emissions and use of resources involved in this industrialization, libertarianism requires that present rich people clean up some of the excess emissions produced by their ancestors.

In chapter 8, I examine libertarianism's implications regarding collective (or shared) moral wrongdoing. I argue that libertarianism judges individuals' participation in collective wrongdoings impermissible whenever they (A) agree to bear responsibility for, (B) contribute causally to the outcomes of, or (C) personally author-

ize, those actions. This also suggests that our climate-relevant activities may be morally assessed independently of their causal efficaciousness to climate change. Moreover, it implies that external parties may intervene in order to stop joint activities that amount to rights-violations. This leads us to the role of governments.

In chapter 9, I discuss libertarianism's room for governmental climate actions. I argue that libertarianism allows for governments to intervene in order to stop agents from performing any climate-relevant activities that violate (or threaten to violate) other people's rights. Additionally, governments are also allowed to undertake redistributions as a means of rectification in those cases where wrongful activities are nevertheless performed. Although none of these governmental interventions would aim directly at mitigating climate change, they are likely to produce effects that mitigate climate change.

In chapter 10, lastly, I summarize the dissertation. I first conclude that libertarianism in fact recommends – contrary to the prevailing view – that we reduce our emissions of greenhouse gases and decrease our appropriations of climate-relevant resources. I then, in the final section, briefly discuss what the results of the previous chapters suggest with regard to the plausibility of libertarianism. Although my main focus in the dissertation is *not* to evaluate libertarianism as a moral theory, the conclusions revealed in the different chapters do shed some light on that matter. On the positive side, the implications of libertarianism cohere with many of our considered moral intuitions regarding the problems of climate change (that it is a problem and should be avoided). On the negative side, it is questionable as to whether libertarianism tells us that climate change is problematic *for the right reasons* – that is, whether libertarianism's climate-friendly implications manage to provide the *best* explanation to the content of these intuitions. However, answering that question would require investigations into other fields of application, and examinations of other candidate moral theories, which would be far beyond the scope of this dissertation.

## 2. The Basics of Libertarianism

There are many different kinds of libertarian theories discussed in the philosophical literature.<sup>14</sup> Throughout this dissertation, I discuss libertarianism exclusively as a *basic* moral theory – that is, in competition with utilitarianism, Kantianism, virtue ethics, etc.<sup>15</sup> My aim in this chapter is to explain the essentials of libertarianism (in this sense) that are relevant to the problem of climate change.

As was mentioned in the introductory chapter, the fundamental idea of libertarianism is that individuals have certain moral rights, and that those rights determine right action. The libertarian core principle may be formulated as the

**Non-Aggression Principle:** An act is morally permissible if and only if, and because, it does not violate anyone's rights.<sup>16</sup>

Two things need to be emphasized here. First, libertarianism is concerned with *moral* rights, as opposed to *legal* rights. In other words, libertarianism holds that people bear their rights irrespective of whether these rights are recognized by any actual legal system. Second, libertarians, just as others, sometimes talk about acts as being morally *wrong*. However, moral wrongness and moral permissibility are interdefinable: An act is morally wrong simply if, and only if, it is not permissible.

As the non-aggression principle entails, libertarianism is a view regarding side-constraints in the following sense: it does not prescribe that we minimize rights-violations, but only that we do not violate any rights, full stop. Also, the principle is *actualist* (or *objectivist*): it implies that only actual infringements, and no mere probable ones, may count as rights-violations.<sup>17</sup> In order to understand the non-aggression principle in more detail, it is helpful to look at some other central theses of libertarianism. Below, I discuss its theses regarding self-ownership, external appropriation, negative rights, acts and omissions, individualism, infringements, boundary-crossings, consent, potential justifiers and rectification. I also explain their relations to one another, as well as how they connect to the non-aggression principle.

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<sup>14</sup> Brennan (2012) brings a broad variety of such views up for discussion. See also Mack (2011) for a brief history of libertarian theorizing.

<sup>15</sup> Hence, I shall not address forms of libertarianism derived from other moral theories (e.g., utilitarianism, ethical egoism or contractarianism). I will nonetheless take into account arguments proposed by adherents of such views whenever they are relevant to my discussion.

<sup>16</sup> See Nozick (1974: 34), Block (2004), Vallentyne (2007c) and Mack (2010: 59).

<sup>17</sup> This has some interesting implications regarding the *risks* that come with people's climate-relevant activities. These are discussed in chapter 5.

### *The Self-Ownership Thesis*

Libertarianism's most salient thesis concerns full moral self-ownership: individuals morally own themselves (i.e., their mind and body parts). To possess moral self-ownership, on one description, is to possess the same moral rights to oneself as a slave owner has legal rights to his slaves, or as a legal owner of an inanimate object (e.g., a bike) has legal rights to that object.<sup>18</sup> In accordance with this idea, you, and no one else but you, have the right to decide over your body and the choices in your life.

### *The Theory of Appropriation*

Libertarianism also involves the idea that individuals may gain moral ownership over *external* resources (i.e., extra-personal resources), such as land, minerals, water, air, etc. However, rights to external resources must somehow be acquired (which the right to ourselves must not).<sup>19</sup> All libertarians accept some kind of view on how this could be done. In the words of contemporary libertarian Bas van der Vossen: "since persons can be justified in having property rights, they must be able to appropriate" (2009: 368).

The most discussed theory of appropriation among libertarians is the so-called *labor mixing-view*, which originates with John Locke (1690).<sup>20</sup> According to this theory, we own our labor simply on account of our self-ownership, and everything unowned with which we mix our labor thus becomes ours as well. In that way, a previously unowned natural resource (e.g., a piece of wood or a piece of land) becomes privately owned by someone who mixes her labor with this resource (in this case, for instance, by making a table of the piece of wood, or by cultivating the piece of land). Murray Rothbard, for example, claims that:

Surely, it is a rare person who [...] would say that the sculptor does not have the property right in his own product. Surely, if every man has the right to own his own body, and if he must grapple with the material objects of the world in order to survive, then the sculptor has the right to own the product he has made, by his energy and effort, a veritable *extension* of his own personality. (1973: 37)

The theory of appropriation is most often understood more broadly, according to which external resources become privately appropriated by the person who first discovers them, mixes his labor with them, brings them into useful production, merely claims them or in any way uses them.<sup>21</sup>

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<sup>18</sup> See, for instance, Cohen (1995: 68), Kymlicka (2002: 108), Vallentyne (2009: 4) and Narveson (2013: 375-6). There is, however, a problem as to where the line is situated between ourselves and the rest of the world. I choose not to delve into this issue. See Lippert-Rasmussen (2008) for an interesting discussion on this topic.

<sup>19</sup> See, for instance, Mack (2010: 54).

<sup>20</sup> See, for example, Nozick (1974: 175-82) and Feser (2005: 65-6).

<sup>21</sup> C.f. Rothbard (1973: 42) and also Rothbard (2009: 14).

It is important to note that most versions of libertarianism impose a “fair share” constraint on external appropriations. This constraint also originates with Locke, who formulated a so-called *proviso* according to which individuals may privately appropriate external resources only as long as they leave “enough and as good” for others (1689: Ch. V, §27). Presently, however, libertarians disagree whether any such proviso should be accepted or, if so, what it would require in detail.<sup>22</sup>

### *Negative Rights*

Libertarianism maintains that full moral ownership of an entity (oneself or one’s external property) consists of a full set of *rights* over that entity. In the entry “Libertarianism” (2014) in the *Stanford Encyclopedia of Philosophy*, Peter Vallentyne and Bas van der Vossen claim that these rights amount to rights of

- (i) *control* (over the use of the entity, both a liberty-right to use it and a claim-right that others not use it),
- (ii) *compensation* (as rectification for whenever someone uses the entity without one’s permission),
- (iii) *enforcement* (e.g., preemptive rights of prior restraint if someone is about to violate these rights),
- (iv) *transfer* (of these rights to others by sale, rental, loan or gift), and
- (v) *immunity* (to the non-consensual loss of these rights).

It should here be stressed that libertarianism basically endorses only *negative* rights (i.e., rights to *non-interference*). Actually, the idea of universal full self-ownership is inconsistent with initial positive rights (i.e., rights to assistance), since such rights would obligate individuals to actively serve as means to the other individuals’ ends, which would infringe on the former individuals’ self-ownership. As libertarian Jan Narveson (2013: 382) puts it, “[a] positive right, by definition, cuts further into our liberty than the corresponding negative one: if you are *forced* to help others in need, then you do not have your choice whether to help them”. According to libertarianism, no adult individual initially has any right to any sort of positive treatment or aid from others.<sup>23</sup> Note, however, that the compensation right is in one sense a positive right. However, it is not *basic* in the relevant sense, as it is *conditional* on the prior violation of other rights.

### *The Acts and Omissions Doctrine*

As made clear by the formulation of the non-aggression principle, only *acts* can violate rights. It is, however, common to say that *agents* can violate rights, for the simple reason that only agents can perform acts. What generally distinguishes an

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<sup>22</sup> It is also not clear exactly how libertarians take the proviso to relate to the non-aggression principle. All of this will be further discussed in chapter 4.

<sup>23</sup> See also Mack (2010: 62): “the natural right to self-ownership rules out persons’ being born to positive obligations to deliver goods or services or desirable practices to others”.

agent from a non-agent is *the capacity to intentionally cause changes*.<sup>24</sup> In other words, agents are essentially capable of making *intentional interventions in the course of nature*.<sup>25</sup> Note that any effect of intentional actions may be relevant with regard to the non-aggression principle, whether they be intended or not. This means that no mere event or non-agential object can violate rights. Human activity can violate rights, but volcanic activity cannot. As left-libertarian Michael Otsuka says, “talk of rights violations has [...] gone too far if it is based on a theory that implies that a falling stone can violate a human right” (1994: 80).<sup>26</sup>

There is a normatively decisive difference between *doings* (i.e., active behavior) and *allowings* (i.e., passive behavior) on libertarianism. Only the former count as actions, while the latter count merely as omissions. In consonance with this so-called *Acts and Omissions Doctrine*, libertarians argue that no mere omission can be impermissible. In other words, they believe that it is not possible to do unconditionally wrong by mere *inaction*.<sup>27</sup> Hence, they argue that *not* hindering a rights-violation of someone else, due to merely omitting to act, is *not* wrong.

### *Individualism*

Libertarianism is an individualist approach. This means that only individuals count as moral agents and rights-bearers. Hence, there is no room for non-reducible collective (i.e. group) moral agency within libertarianism. Whenever rights-violations are due to the activities of collectives of people (such as corporations or governments), these rights-violations are reducible to the actions of the individual members of such groups.<sup>28</sup>

Libertarianism’s individualist stance has some noteworthy implications. First, it comes with a so-called *person-affecting restriction*, according to which all rights and duties are at the end of the day *personal*. This means that if an action is wrong, it involves the wronging of *someone*. If no one has been wronged, then no wrongdoing has occurred. Second, libertarianism takes *the separateness of persons* seriously. That is to say, it implies that a person’s rights (duties) are *her* rights (duties), and may not be substituted, transferred or counterbalanced by or to anyone else’s rights (duties) without her permission. Robert Nozick expresses this idea as follows:

There are only individual people, different individual people, with their own individual lives. [...] The moral side constraints upon what we may do, I claim, reflect the fact of our separate existences [...] There is no justified sacrifice of some of us for others. This root idea, namely, that there are different individuals with

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<sup>24</sup> See, for instance, *Cambridge Dictionary of Philosophy* (p. 6).

<sup>25</sup> See Andersson (2007: Ch. 3).

<sup>26</sup> See also Rodin (2002: 86). Otsuka’s left-libertarianism will be discussed in chapter 4.

<sup>27</sup> The occurrence of “unconditionally” here signifies that one can do conditionally wrong by mere inaction. If, for example, I have promised to help you, then I might do wrong by omitting to help you.

<sup>28</sup> I shall argue in chapter 8 that there is nevertheless a way for libertarianism to account for collective wrongdoing in a sense that is relevant to the problem of climate change.

separate lives and so no one may be sacrificed for others, underlies the existence of moral side constraints. (1974: 33)<sup>29</sup>

As will be clear later on in this dissertation, this individualist tenet of libertarianism has some interesting implications with respect to the possibility of compensating those individuals whose rights we violate. It also implies that no person initially has any duty to correct for any other person's wrongdoings.

### *The Role of Infringement: (I) Boundary-Crossing*

According to libertarianism, rights-violations do not fundamentally derive from harms but from *infringements*. It is thus possible to harm someone without violating her rights (e.g., breaking an arm in sports), and it is possible to violate someone's rights without harming her (e.g., breaking in to someone's house without them ever noticing). Within the libertarian framework, "infringement" is understood partly in terms of "boundary-crossing".<sup>30</sup> The idea is that individuals have moral boundaries that surround all and only that which make up their respective legitimate territories – that is, themselves and their external property. In that sense, the rights of a person are determined by the boundary of that person's moral territory, and to violate her rights implies crossing her boundary.

In order for a person's boundary to be crossed, she must be subject to some kind of effect. Libertarianism originally comes with a very strict view on personal boundaries and the effects these allow for. As Vallentyne and van der Vossen argue:

Recognizing people's rights as full self-owners means condemning as wrongful even very minor infringements, such as when tiny bits of pollution fall upon an unconsenting person. [...] [F]rom the point of view of self-ownership, there is no principled difference between minor infringements and major infringements. (2014: 8)

In line with this idea, people's boundaries are sensitive to *any* interference whatsoever. Any physical intervention on one's legitimate territory – such as a fist, bullet, light wave, sound wave, molecule, etc. – *is* a boundary-crossing.<sup>31</sup> As Peter Railton notes in a critical paper, strict libertarians "do not say that whether a border is wrongfully crossed depends upon the magnitude of the effect" (1985: 196). In the words of David Sobel, a defender of libertarianism, the libertarian view thus appears to allow a "simple and powerful argument against a range of activity without requir-

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<sup>29</sup> See also Mack (2010: 58-9).

<sup>30</sup> See, for instance, Nozick (1974: 57-9), Elliot (1986), Sobel (2012), and Mack (2015). Sometimes "impingement", "trespassing" and "transgression" are used synonymously to "boundary-crossing". However, the other constitutive part of infringement is *lack of consent*, which is explained in the next section.

<sup>31</sup> In personal correspondence, Vallentyne endorses this strict view on boundary-crossing. He moreover says that it is the common view among libertarians. See also Vallentyne (2011a).

ing an investigation into the significance of the infringement” (2012: 34). However, that boundary-crossing is not sufficient for rights-violation.<sup>32</sup>

### *The Role of Infringement: (II) Lack of Consent*

To infringe upon someone is to cross her boundaries *without her consent*. As Nozick (1974: 58) writes: “voluntary consent opens the border for crossings”.<sup>33</sup> In other words, this means that someone’s action do not amount to an infringement if the individuals whose boundaries are crossed by this action permit such crossings. In the real world, people often consent to many sorts of boundary-crossings: the doctor’s examination, the dentist’s drill, etc. These are hence unproblematic from a libertarian point of view.

Plausibly, “consent” and “dissent” refer not only to *explicit* consent/dissent, but also to *implicit* consent/dissent. The usual way to spell out implicit consent is by reference to the actions people themselves perform, and the conventions in which they take part. If a person chooses to enter a situation, aware of the rules and constituents of this situation, then she implicitly consents to these rules and constituents – even if she has not explicitly consented to them. Similarly, one could say, somewhat vaguely, that when an individual performs an action of a certain type, she implicitly consents to others performing actions of the same type. In the words of David Friedman, the relevance of implicit consent implies that “by breathing and turning on lights and doing other things that impose tiny costs on others I am implicitly giving them permission to do the same to me” (2014: §41).<sup>34</sup>

Some might argue that *hypothetical* consent should also count – that is, consent that *would* be given by the agent were she in a somewhat more ideal position (with more knowledge, more opportunities, more capacities, or so). Maybe, I would consent to give away my money if I had more knowledge, were richer or the like. This, however, cannot matter from a libertarian perspective. What matters for libertarianism is simply what people *actually* consent to (explicitly or implicitly).<sup>35</sup>

There are, in any event, some conditions for *valid* consent in relation to libertarianism. As indicated in the quote from Nozick above, all consent must be *voluntary*. If, for example, I consent under duress to become your slave, then my consent will be invalid due to involuntariness. When it comes to implicit consent, a person’s conduct amount to such only in case she knows what she is doing.<sup>36</sup>

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<sup>32</sup> In chapter 3, we shall discuss some attempts to strengthen the notion of boundary-crossing so that it becomes less sensitive to external influence.

<sup>33</sup> The significance of consent was also pointed out by Poole, cited earlier. In a similar vein, Railton (1985: fn. 8) talks about “crossing a boundary *wrongfully*” (my emphasis), by which he considers boundary-crossing that is not consented to. See also Mack (2010: 61).

<sup>34</sup> See also Thomson (1975). We shall in chapter 3 discuss and refute some alternative understandings of implicit consent.

<sup>35</sup> C.f. Nozick: “tacit consent isn’t worth the paper it is not written on” (1974: 287).

<sup>36</sup> See Huemer (2013: 37-8). Surely, this is not all there is to say about the role of consent within the libertarian framework. There is, for instance, a remaining problem regarding cases where people can neither implicitly nor explicitly consent/dissent to the actions that affect



### *Justifications for Infringements*

There is a discussion among libertarians whether there might occasionally be overriding justifications for infringing on people's rights. Potential justifiers in this respect are:

- (a) *Unavoidability*. The most obvious justifier is provided by the principle that "ought" implies "can". It entails that if an agent cannot avoid infringing on someone's rights, then the agent does not act impermissibly when doing so.
- (b) *Avoidance of catastrophe*. Nozick, for instance, speculates that one might be justified in infringing other people's rights in order "to avoid catastrophic moral horror" (1974: 30, n.). Jan Narveson similarly speaks about cases of "preventing the heavens falling" (2013: 374).
- (c) *Unforeseeability*. Peter Vallentyne, Hillel Steiner and Michael Otsuka (2005: 207), as well as David Sobel (2012: 51), discuss whether an infringement might not amount to a rights-violation, if the agent performing the action could not have foreseen the infringement.
- (d) *Self-defense*. The enforcement right (mentioned above) involves a right to self-defense. This right implies that a defender's infringing action need not amount to a rights-violation, if the action is performed merely in self-defense.<sup>37</sup>
- (e) *Compensation*. Another possibility discussed in the libertarian literature is that an infringement does not amount to a rights-violation, if those whose boundaries are crossed without consent are *compensated* for this crossing.<sup>38</sup>

The general idea is that whenever there is justification of any relevant kind, the infringement (i.e., unconsented boundary-crossing) does not amount to a rights-violation and hence it is not impermissible.<sup>39</sup> The relevance and plausibility of these justifiers will be scrutinized as they arise.

### *The Principle of Rectification*

In general, the moral rights of each individual confer moral *duties* on every other individual to respect these rights. In particular, the right to compensation confers a duty of *rectification*. This means that libertarianism implies a principle of rectification, upon which anyone who violates any right must rectify that violation. This is typically done by means of compensation to the victim, where the compensation

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them. Many medical cases are of this kind: see Arneson (2005: 271). Other more general cases too: see Mack (2015: 217). One way of dealing with this problem is to employ not only people's *choices* but also their *interests*. Vallentyne (2007a: 193) proposes such an idea, lending room for people's interests being lexically inferior to their choices. See Wall (2009) for problems with this proposal. However, we need not deal with this here, since most people who are affected by our climate-relevant activities can actually consent or dissent to them.

<sup>37</sup> C.f. Railton (1985: 190, f.n. 8). The right to self-defense is examined in detail in chapter 6.

<sup>38</sup> See Nozick (1974: Ch. 4).

<sup>39</sup> Consider, for instance, Thomson (1977), Kagan (1994) and Vallentyne (2009, 2011b).

required is such that the victim would have been indifferent between not being infringed upon and being infringed upon alongside receiving the compensation.<sup>40</sup>

It should be said here that libertarianism is *history-sensitive* in the sense that the principle of rectification “remembers” everything that has happened in the past. In the words of Vallentyne and van der Vossen, libertarianism “takes very seriously the historical component of justice” (2014: 2). In Nozick’s words, the principle “...uses historical information about previous situations and injustices done in them...” (1974: 152).<sup>41</sup>

I presume that what has been said so far suffices in order to start the investigation of libertarianism’s implications for climate change. Further detailed explications of the libertarian morality will be brought up in due course.

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<sup>40</sup> See, for instance, Railton (1985: 213).

<sup>41</sup> This has some interesting implications for the issue of historical emissions, which are discussed in chapter 7.

### 3. Emissions of Greenhouse Gases

Just like any other moral theory, libertarianism does not *on its own* yield any substantive recommendations regarding the problems of climate change. To infer such recommendations, we must combine the theory with the empirical facts brought up in the first chapter of this dissertation. There, we observed that the main factor behind human induced climate change is our emissions of greenhouse gases.

In this chapter, I scrutinize libertarianism's general implications regarding our emissions. My main aim is to investigate whether our individual emissions violate people's rights. In line with the explications in the previous chapter, this will amount to an examination of whether our individual emissions cross the boundaries of other people without these people's consent. For the sake of argument, I throughout this chapter assume that the resources used in our emitting activities are legitimately appropriated. Whether (or to what extent) these resources are in fact legitimately appropriated will be dealt with in chapter 4.

#### 3.1. Do our Emissions Cross People's Boundaries?

In section 1.3, I argued that individual greenhouse gas emissions differ from other forms of air pollution due to the fact that they do not separately give rise to any harm. For the same reason, one might be tempted to think that they do not cross people's boundaries, and that they hence do not give rise to any rights-violations.

However, some authors – for instance, John Broome (2012: 50-9), Avram Hiller (2011: 59-60) and John Nolt (2011) – have argued that even individuals' emissions actually do cause harm to others. They have done this by taking the estimated total harm that is the result of human induced climate change, dividing this by the amount of emissions, and then estimating the proportional climate impact of each individual emitter. The calculation says that the harm caused by each individual emitter is serious. To quote Broome, “the annual emissions of one single person living in a rich country shorten people's lives by a few days in total” (2012: 56). To quote Hiller, “the [emitting] actions of a full life of an American seriously harm the full life of one person” (2011: 357). If these claims are correct, then the emissions of a rich individual apparently amount to a boundary-crossing.

It should be noticed, however, that this line of argumentation involves an aggregation, and a reference to average numbers, which is at odds with libertarianism. Broome, for instance, assumes that “a great many miniscule, imperceptible harms add up to a serious harm” (2012: 75). But to shorten the lives of billions of people

by a fragment of a second each is not identical to shorten *one particular individual's* life by a few days in total. Such an aggregated harm is not suffered by any particular person, and is therefore *not* relevant according to libertarianism. This is due to libertarianism's person-affecting restriction.

Still, of course, even miniscule and imperceptible harms are harms. And so it is true that if individuals' emissions cause such harm to other people, then their emissions amount to boundary-crossings. However, things are not that simple. As we saw in section 1.3., the harms that result from our emissions are the result of our *joint* emissions: The harms and damages caused by our emissions appear to be *synergy effects* via thresholds and tipping points in the climatic system.<sup>42</sup> Hence, none of the harms and damages in relation to climate change are strictly speaking attributable to particular individuals.

Of course, the presence of thresholds and tipping points in the climatic system imply that an individual's emissions *might* be the straw that breaks the camel's back. If so, an individual's emissions could be harmful after all. Perhaps this holds at least for very rich individuals who emit massively by themselves – for instance, Saudi oil tycoons or CEOs of multinational corporations who fly around the world in private jets.<sup>43</sup> For most other people, though, it is very unlikely that their individual emissions pass the climate thresholds. It is rather the contribution of many such individuals that cause a threshold to be passed. One individual abstaining from emitting will not prevent the threshold from being passed. Even if a normal individual's emissions would occasionally take us over these thresholds, it would be very unlikely for each individual.

As we saw in chapter 2, however, rights-violations do not fundamentally derive from harms, but from infringements. It is thus possible to sidestep the notion of harm here and still be able to assess people's climate-relevant activities from a libertarian point of view. Suffice it to say that if it can be successfully argued that our individual emissions in fact cause harm to others, either directly or via thresholds in the climatic system, then this will strengthen the conclusions of this section – that our emissions amount to boundary-crossings. Most importantly, the notion of boundary-crossing (as presented in chapter 2) suggests that our emitting activities *nevertheless* cross the boundaries of at least some other people's territories.

One reason for thinking so is that climate science tells us that even one individual's emissions of greenhouse gases contribute to half a billionth of a degree Celsius in temperature rise.<sup>44</sup> Although the undesired events of climate change (e.g., flooding and heatwaves) are threshold phenomena due to the climate system's sensitivity to temperature shifts, there are no similar thresholds for the effects of emissions on temperature rise: Temperature rises exponentially to increased amounts of greenhouse gases in the atmosphere. In other words, for every unit of greenhouse gas

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<sup>42</sup> See, again, IPCC (2014) and Rockström et al (2009).

<sup>43</sup> See Chancel and Piketty (2015) and Kagan (2011). I return to the problem concerning risks in chapter 5, and the problem of collective wrongdoing in chapter 8.

<sup>44</sup> Consider Frame (forthcoming) and Broome (2012: 75).

emitted, there is a subsequent (however miniscule) increase in global temperature.<sup>45</sup> Yet, even if the temperature rise might not give rise to any harm *per se*, it might be seen as boundary-crossing. Another reason to think that our emitting activities are boundary-crossing is that they – involving the burning of oil, coal and gas – yield emissions not only of carbon dioxide, but also of other particles (such as carbon monoxide, ozone, nitrogen dioxide and sulfur dioxide) that affect people more significantly.<sup>46</sup> Although this is not an intrinsic feature of greenhouse gases, it is a side effect of the activities that produce them. A third reason to think that our emissions are boundary-crossing is that they are indeed physical signals that are spread very quickly and widely in the atmosphere, and thus come into contact with other people and their property.

Sure, one might think that a notion of boundary-crossing with these implications is *too* sensitive, since it opens up for the moral wrongness of a vast number of actions. Indeed, this seems to fit poorly with the core ideas of libertarianism. As stated by David Sobel: “Could the philosophical theory named for liberty actually turn out to be unacceptably restrictive of our freedom?” (2012: 37).

It may seem implausible that the kinds of boundary-crossings that are due to our emissions are morally relevant. Unlike nuclear waste and artificial toxins (to name a few examples of air pollutants), greenhouse gases exist naturally in our environment. Water vapor is the dominant one, and it is to be found everywhere. When it comes to carbon dioxide, volcanoes emit them when erupting and plants emit them when decomposing. In fact, the total greenhouse gas concentration in the atmosphere was 280 parts per million (ppm) even prior to year 1750 – that is, even before human activities began to add to them (today the total greenhouse gas concentration in the atmosphere is somewhere around 450 ppm).<sup>47</sup> This means that such gases have always surrounded us: We breathe them, and they are inseparable from our bodies and external property. To regard some mere addition of intrinsically harmless molecules as boundary-crossings may thus seem absurd. However, the libertarian characteristics revealed in chapter 2 imply that it is highly relevant whether something is the effect of human activity, rather than, say, volcanic activity.

Is there any way then for libertarians to address this? In his book *The Machinery of Freedom* (2014: §41), libertarian David Friedman says that, “[i]t seems obvious that we want property rules that prohibit trespass by thousand megawatt laser beams and machine-gun bullets but not by flashlights and individual carbon dioxide molecules. But how, in principle, do you decide where along that continuum the rights of the property owner stop?” One answer discussed by Friedman is that only *significant* boundary-crossings should count. He does not specify what would count as significant, but it suggests a strengthened notion of boundary-crossing that is less sensitive to external influence.

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<sup>45</sup> See IPCC (2014) and Broome (2012: 36).

<sup>46</sup> See, for instance, World Health Organisation (2014).

<sup>47</sup> See IPCC (2014).

Perhaps such a strengthening could be made along the lines of Murray Rothbard, who claims that “[a]ir pollution [...] of gasses or particles that are *invisible* or *undetectable* by the senses should not constitute aggression per se, because being insensible they do not interfere with the owner’s possession or use” (1982: 83, my emphases). Since separate individuals’ greenhouse gas emissions are precisely of this sort – invisible and undetectable – one could argue that they should not count as boundary-crossings.<sup>48</sup>

However, besides the risk of being merely *ad hoc*, this proposal is inconsistent with some of the core beliefs in the libertarian theory. It might do away with some problems with minor infringements, but only at the cost of creating others. For instance, it has the implication that many clearly problematic actions – such as physically molesting a sleeping person, or injecting a drug into someone, who is incapable of ever noticing or detecting this – do *not* amount to boundary-crossings, and hence will not be wrong on libertarianism. Also, exposing people to nuclear radiation should plausibly count as a boundary-crossing even if that cannot be detected by their senses.

Eric Mack (2015) has recently come up with a defense of a refinement in the location of boundaries that is supposed to avoid these problems. His basic idea is that having a right to something, X, implies a right to some *use* of X. If that were not the case, Mack argues, we would end up with a “hog-tying problem”, as we would then be prohibited from doing almost anything. For that reason, he postulates an “elbow room for rights”. According to this postulate, “a reasonable delineation of basic moral rights must be such that the claim-rights that are ascribed to individuals do not systematically preclude people from exercising the liberty-rights that the claim-rights are supposed to protect” (2015: 197). Mack’s refinement suggests that “minor intrusions”, defined as “impositions of very low-level physical effects upon another person or her property” (2015: 196), do not count as boundary-crossings. Exactly what this means, he argues, is to be settled by convention.<sup>49</sup> However, he does make a further specification:

The moral elbow room reasoning is that, while individuals must be at liberty to engage in *non-malicious* (and *non-wanton*) minor intrusions if they are to be at liberty to dispose of their *own* persons and possessions as they see fit, this liberty need not extend to malicious (or wanton) minor intrusions. It suffices to solve the hog-tying problem that non-malicious and non-wanton minor intrusions be permissible. As long as the minor intrusions on others are incidental to the agent’s decisions about how to deploy his person or property we reasonably view these

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<sup>48</sup> This argument is also stressed by Block (2011b: 5).

<sup>49</sup> Although Mack says that “[t]he permissibility of minor intrusions is explained on the basis of a refinement in the location of boundaries rather than a general attenuation of rights” (2015: 198), his reference to convention rather seems to imply that his proposal concerns the notion of (implicit) consent. In other words, it seems to be an idea about what people give their permission to, rather than what their boundaries are resistant to. I return to this in the next section.

deployments as fundamentally exercises of that agent's rights. However, if those intrusions are wanton or malicious – done for or verging on being done for their intrusiveness – they are more reasonably seen as the agent doing as he sees fit with others or their property and, hence, as boundary-crossing. (2015: 212, my emphases)

This idea thus avoids my previous objection: Since individuals have the right to use *only their own* respective selves and property, the elbow room postulate is supposed not to allow individuals to steal things, or the like, even if these thefts would be completely insensible and unnoticeable to the victims.

Still, a notion of boundary-crossing that excludes non-malicious or non-wanton minor intrusions is unfaithful to the libertarian self-ownership rationale. To illustrate this, consider the following scenario: Assume that if I log into my online bank account more than once a week, a sudden bug in the bank's software results in a millionth of a dollar being subtracted from *your* bank account. As it happens, the bug in the software is not attributable to anyone's moral wrongdoing. Also, the contract between the bank and me does not hold the bank responsible in case anything like this happens. Moreover, I am fully aware of this, and I accept the contract because of the various benefits provided by the bank. Still, the subtractions that occur due to my logins are non-wanton and non-malicious – we may even assume that they are unintended and (initially) unforeseen by me. However, an error message soon starts to inform me about the subtraction effects of my logins. I realize that I could prevent further subtractions from your account, either by changing to a new bank or by simply making sure that I do not log in more than once a week. Because of mere laziness, however, I do none of this. Since you lose only a millionth of a dollar a week due to my login activity, you do not even notice the subtraction. Nevertheless, is it not obvious that my login activity crosses your boundary – albeit unintentionally, non-wantonly, non-maliciously and only via some indirect effects? I believe that anyone, in particular libertarians, should think so.

Consequently, I think libertarians have reasons for *not* accepting a strengthened notion of boundary-crossing *à la* Mack. Therefore, I also think individuals' emitting activities should be seen as boundary-crossings, even if they would be mere non-wanton and unintentional effects of mere exercises of liberty-rights, and even if they occur only via some "bugs" in the climatic system.

The only remaining potential way for libertarians to avoid this result, I think, is by interpreting boundary-crossing in terms of *liberty-restriction*. Based on such an understanding, an action crosses somebody's boundary only if it hinders her from performing some actions that she would otherwise (and legitimately) have been able to perform.<sup>50</sup> In other words, an action is boundary-crossing only if it restricts some-

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<sup>50</sup> This is in line with an idea of Rothbard, that "...we must refine our concept of invasion to mean not just boundary crossing, but boundary crossings that in some way interfere with the owner's use or enjoyment of this property" (1982: 151). See also Vallentyne (2011a) and Oberdiek (2008) for a similar view.

one's legitimate choice-set compared to what the choice-set would be like were the action not performed. On this account, it might be argued that since no individual's emissions restrict any other individual's liberty, no individual's emission crosses any other individual's boundary. Hence, libertarianism would also provide a solution to the problem of miniscule effects!

Although liberty-restriction would perhaps be plausible as a sufficient condition for boundary-crossing, it is not plausible as a necessary condition for boundary-crossing. Considered as a necessary condition, it is indeed inconsistent with the libertarian control right – in particular the claim-right that others not use one's property without permission. To illustrate this, let us return to the bank account scenario. Let us assume that after each time one millionth of a dollar is subtracted from your account because of my login, I make sure to transfer one millionth of a dollar back to you immediately. The result is that I merely "borrow" a very small amount of your money for a very short period of time. Let us moreover assume that due to the nature of the situation, there is nothing that you cannot do because of my "borrowing" that you could have done had it not taken place. Hence, my "borrowing" does not in any relevant way restrict your legitimate choice-set. But still, the libertarian control right gives you the claim-right that others do not use it without your permission. Hence the "borrowing" is something that libertarianism deems impermissible if done without permission (if there is no other potential justifier, which is discussed below). Therefore, the "borrowing" constitutes a boundary-crossing, and, consequently, liberty-restriction cannot be necessary for boundary-crossing. The plausibility of this upshot may be strengthened by changing the example to one where the "borrowing" concerns something more significant (say, a million dollars, a car or a house) and where the choice-set of the person in question is not restricted in any relevant sense (say, because she is meanwhile sleeping at a distant place).

So, I claim, libertarians have reason to stick to a strict notion of boundary-crossing on which particular individuals' emitting activities are boundary-crossings – yet they are neither intentional, noticeable, malicious, wanton nor liberty-restricting in any relevant sense. Yet, as we learned in chapter 2, *not all* kinds of boundary-crossings amount to rights-violations. First and foremost, an action that crosses another person's boundary is an infringement only insofar as it *lacks the consent* of this person. In other words, if the person permits the crossing it does not constitute an infringement. What the case is with regard to our individual emissions remains to be answered.

### 3.2. Do our Emissions Cross People's Boundaries without their Consent?

What can we say about people's consent to individual emissions of greenhouse gases? Although individuals' emissions cross the boundaries of others, it seems plausible to assume that people will not dissent to them on the basis of their direct effects – especially not when considered in isolation. Of course, this is a debatable empiri-



cal claim. Nonetheless, I think it is reasonable in light of what people tend to care about, whether or not they have independent reasons for doing so. People care little about things that are unnoticeable to them. And the effects of individual emissions (even via their contribution to, for instance, sea-level and temperature rise) are in fact miniscule and imperceptible. So, if the absence of dissent is taken for the presence of consent, then libertarianism implies that individual emissions do *not* amount to infringements.

It should be emphasized, however, that libertarianism takes wrongdoing to require only *the absence of consent* – and thus not the presence of dissent – from those people whose boundaries are crossed. Even if people do not dissent to the emissions of others, the interesting question is whether they also do not consent to them. And here, it is quite clear that not everyone consents to the status quo with respect to emissions.

Moreover, the accumulated climatic effects of people's joint emissions of greenhouse gases are undeniably perceivable by some people already today. Some individuals are actually harmed or even killed by the effects of climate change. For this reason, some people object to the present situation. Indeed, many people dissent to the high emissions even of separate individuals – although they know that each and every one of these emissions may be considered inoffensive in isolation – because they realize that these emissions taken together put the survival of themselves, their children and even their entire species at risk.

In connection to this, there is also dissent from some people who are not yet themselves affected by climate change, but who care for others – either those now affected or future generations who will presumably be affected even more. This, I surmise, is also why we have a debate on climate change in the first place. Even if the survival of the human species is nothing that concerns libertarianism *per se* – and even if the existence of future individuals is contingent on the activities of present individuals – some present individuals do express concern for future generations and the human species. And, for *that* reason, they explicitly dissent to the activities that run counter to their concerns.

To strengthen this line of reasoning, let us return to the story from the previous section about the bank account. Let us add that after a while, the bug in the bank's software also starts to affect other people's login activities. This results in one millionth of a dollar being subtracted from your bank account every time someone logs in more than once a week. Further assume that all "loginners" are informed about this effect, and that they could avoid it by changing banks or by restricting their login activities to at most once a week. But, due to mere laziness, not a single person complies. After some time, you are informed about the situation. Still, since the amount subtracted each week is so miniscule, it does not affect your financial situation in any noticeable way. Suddenly, however, you realize that these miniscule subtractions might eventually lead to a significant decrease of your account balance due to the large number of people now regularly logging into their online bank accounts. It might eventually ruin your entire life's savings! On the basis of this insight, you raise your voice against anyone's login activity that amounts to more than

once a week – and you do so although you know that each and every one of them causes no harm to you. Consequently, there is no consent to these people’s boundary-crossing login activities, and so their more-than-once-per-week login activities amount to infringements. Based on the same reasoning, it seems, individuals’ emitting activities amount to infringements according to libertarianism.

However, when it comes to the relevance of *implicit* consent, it suggests that anyone who emits greenhouse gases to a certain extent gives her implicit consent to others to emit such gases to that same extent. What this means is that since almost anything we do gives rise to greenhouse gas emissions (even the poorest of the poor emit *some* amount of greenhouse gases), *all* present individuals implicitly consent to *some* emissions simply by performing acts that are needed in order to stay alive (breathing, eating, etc.). However, this also suggests that people who emit only small amounts of greenhouse gases do *not* give their implicit consent to the massive emissions of others. This holds true for most poor people, and also those (relatively few) people among the rich who do not emit the same great quantities as the typical rich. Unless these low-emitting individuals have given their *explicit* consent to high-emissions, they do not consent to those emissions.

Consequently, libertarianism has us distinguishing between the amount of emissions that everyone makes, and those emissions that exceed this amount. This may be done along the lines of a seminal paper by Henry Shue (1993), making a distinction between *subsistence emissions* (i.e., emissions required for satisfying basic needs) and *luxury emissions* (i.e., emissions required for satisfying non-basic needs). If we stick to this terminology, and take “subsistence emissions” as a technical term for the emissions implicitly consented to by everyone, and “luxury emissions” as a technical term for any emissions that go beyond those that everyone implicitly consents to, then libertarianism implies that only our luxury emissions amount to infringements.<sup>51</sup>

Some might nonetheless want to argue that since the poor do not really have any choice but to emit as little as they do, their emissions cannot be taken for implicit consent to only such minor emissions. Presumably they would consent to some major emissions – even some of the luxury ones – if they had the opportunity to emit more themselves. This, however, would be a mere *hypothetical* consent, since they do not in fact enjoy that opportunity. And, as was argued in chapter 2, hypothetical consent is ruled out from a libertarian point of view. Still, it is true that *even if* we would take it to be relevant, many people actually suffer from the harms and damag-

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<sup>51</sup> This is also in line with Locke, who thought that people’s most fundamental right is “the right everyone had to take care of, and provide for their Subsistence” (1689: Vol. 1, First treatise, §87). Sure, the notions of “subsistence emissions” and “luxury emissions” are vague. Toward the end of chapter 4, I discuss the amount of permitted emissions in more concrete terms. Note, however, that if we reject the relevance of implicit consent, then *all* emissions will be infringements, since there are some crazy people who explicitly dissent to other people’s subsistence emissions. This gives libertarians a reason for accepting the relevance of implicit consent.

es caused by climate change, for which reason some of them would not even hypothetically consent to such higher amounts of emissions.

Perhaps one could object to this reasoning by questioning the understanding of implicit consent that I have here adopted: By performing an action of a certain type, the agent implicitly consents to others performing actions of that same type. An alternative way of understanding implicit consent, with different implications, would be in terms of proportionality: By consuming a certain proportion of what the agent herself could consume, she consents to others consuming the same proportion of what they themselves could consume. This understanding, however, is implausible. For example, it implies that every poor person who consumes everything there actually is for him to consume would thus consent to any consumption levels whatsoever of everyone else. Therefore, we should stick to the previous understanding of implicit consent. And, subsequently, we should accept that our luxury emissions infringe on at least *some* people's territories.

One remaining concern, however, has to do with temporal distances. If the crossings of present individuals' boundaries are entirely due to the emissions of past individuals – for instance, those who lived in the 19<sup>th</sup> century – then present individuals' boundaries are not crossed by other present individuals' emissions. Hence, they cannot validly dissent to the emissions of present individuals, meaning that these emissions cannot violate any present individuals' rights. The simple answer to this concern goes as follows. As we saw above, our greenhouse gas emissions are spread very fast and widely in the atmosphere, and they also have some rather instant miniscule effects on temperature rise. This means that at least some of the boundary-crossings of our emissions occur without significant delay: They occur to present individuals here and now, as well as to present individuals later in their lives. Consequently, these present individuals may validly dissent to these emissions.<sup>52</sup>

So, does that mean that our luxury emissions are impermissible? As mentioned in the previous chapter, libertarians tend to disagree on whether there might occasionally be overriding justifications for infringing on people's rights. On the one side, Vallentyne claims that “[l]ibertarianism (of the standard sort [...]), however, holds that rights are conclusive (absolute) and unconditional” (2009a: 7). If this is correct, then the infringements that are due to our luxury emissions do amount to rights-violations. If this is not correct, then our luxury emissions might be justified after all. We shall now turn to this issue.

### 3.3. Are our Emissions Justified for Independent Reasons?

As stated in chapter 2, the potential justifiers for infringements discussed in the literature concern (i) unavoidability, (ii) avoidance of catastrophe, (iii) self-defense, (iv) unforeseeability and (v) compensation. In this section, I explore whether any of

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<sup>52</sup> In a similar vein, Stern has argued that “the rights of a young person now to enjoy life and property in the future are being violated by the emissions of the current generation” (2014: 415). Libertarianism's implications for future people are investigated in chapter 7.

these potential justifiers may be relevant with respect to libertarianism's implications for our individual emissions.

When it comes to (i) unavoidability, it could be argued that it is impossible to make *no* emissions at all. Even committing suicide requires emissions. However, this unavoidability is already accounted for by the distinction between subsistence and luxury emissions. And the focus here is on the potential permissibility of our luxury emissions. Regardless of where we want to draw the line between those emissions that are possible to withdraw and those that are not, it is clear that all luxury emitters could at least emit less than they actually do. Therefore, this point fails to justify our luxury emissions.

Concerning (ii) avoidance of catastrophe, it is safe to say that our greenhouse gas emissions are not plausible candidates for this kind of justification. If there is any catastrophe at all to worry about, it is rather *because* of our emissions.

Regarding (iii) self-defense, it suffices to say that our luxury emissions are typically not performed in such respect – meaning that we do not emit luxuriously for the sake of defending ourselves. We might emit luxuriously as a means to better our lives, but we do not do so as a means for defending our rights. Hence, the right to self-defense cannot function as a general justifier for our luxury emissions.<sup>53</sup>

When it comes to (iv) unforeseeability, I find it simply implausible in general as a justifier for infringement. Although unforeseeability would perhaps affect the judgement of *blame* for the actions performed by people, it would not affect the *permissibility* of the action.<sup>54</sup> Additionally, the effects of our climate-relevant activities are nowadays quite foreseeable, which is why unforeseeability would still be irrelevant as a justifier for our luxury emissions.

Regarding (v) compensation, things are a bit more complex. To the best of my knowledge, the role of compensation within libertarianism remains unsettled. However, it seems obvious that compensation could work in a *proactive* sense as a means for obtaining prior consent to subsequent boundary-crossings. If a luxury emitter were to persuade mere subsistence emitters – by way of compensation – to let him continue to emit luxuriously, then there would no longer be any valid dissent to his luxury emissions, thus making them permissible. In this sense, though, compensation would not constitute any justifier for infringement, but rather a means for assuring that boundary-crossings do not amount to infringements in the first place. As things are at the moment, however, luxury emitters do not compensate their victims in this proactive respect (this will be addressed below).

Since Nozick (1974: Ch. 4), there is a discussion among libertarians whether compensation could perhaps also work in a justificatory respect – whether it would be permissible to cross people's boundaries without their consent provided that compensation is paid to them later. Nozick labels this option “cross and compen-

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<sup>53</sup> In chapter 6, I address the implications of the self-defense right regarding climate change more generally.

<sup>54</sup> See Sobel (2012: 51) and Thomson (1990: 234) for similar arguments.

sate”<sup>55</sup>. Nevertheless, I think that this option is unavailable from a libertarian view. As we saw in chapter 2, ownership consists of a bundle of rights, of which the right to compensation is one. This right is due to the more basic control right that others do not infringe on one’s own territory, and it kicks in whenever someone does. Consequently, *if* a rights-violation has already occurred, *then* compensation is prescribed as a means for rectifying that violation. Thus, it seems, compensation in connection to a rights-violation works only as a *secondary* alternative. This in turn suggests that it is impermissible to cross people’s boundaries without their consent, yet we shall compensate them afterwards. Consequently, compensation cannot function as a justifier for infringement.

Interestingly, though, I think that *even if* we took compensation to be theoretically available as a justifier for infringements in general, it would be practically unavailable when it comes to our luxury emissions in particular. To illustrate this, we should keep in mind that, as Railton puts it, “[i]f a polluting activity harms an individual, the compensation required would be such that the victim would have been indifferent before the fact between not suffering the harm at all and suffering the harm but receiving the compensation given” (1985: 213). Disregarding Railton’s focus on harm (again, what matters for libertarianism are infringements), the problem with compensation for our individual emissions becomes clear as soon as we try to spell out what this would require in practice.

The most worrisome problem is that some individuals will not be indifferent before the fact between not being affected by our emissions and receiving the compensation given, no matter the amount of compensation. Again, some people are dying from climate change and cannot be compensated at all at a later stage. And, surely, saying that one person’s life is substitutable by some resources to *other* persons is unfaithful to libertarianism’s individualist stance – at least insofar as they have not themselves consented to such substitutions (e.g., for the sake of their children).

Indeed, libertarianism is concerned with individuals *particularly*. And our emissions cross the boundaries of a large number of nonconsenting individuals. Even if we wanted to compensate our victims, we would not know *to whom* we owe compensation (or, hence, *how much* we owe them).<sup>56</sup> So, even if compensation would work as a means for rectifying *some* infringements in general, it does not seem to work when it comes to rectifying the infringements that are due to our luxury emissions in particular.

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<sup>55</sup> See also Railton (1985), Arneson (2005), Wall (2009), Sobel (2012) and Mack (2015: 196).

<sup>56</sup> C.f. Broome (2012: 79): “None of us knows how much harm we cause by our emissions. We may be able to compute how much gas we emit, but the harm that gas does is very uncertain”. See also Railton (1985: 214-17). There would moreover be problems due to transaction costs. See Nozick (1974: 76): “the appropriate compensation would seem to involve enormous transaction costs”. Nozick here speaks about the problems of compensations to “those persons who undergo a *risk* of a boundary crossing” (my emphasis). However, the nature of climate change suggests that the same worries hold for *actual* boundary-crossings of our emissions as well. I get back to questions concerning risks in chapter 5.

The only remaining possibility for justifying our luxury emissions that has been discussed in the literature concerns so-called *offsetting*. It has been suggested by, for instance, Broome (2012). Offsetting means that for every unit of greenhouse gas you add to the atmosphere, you make sure to subtract one unit from it. Offsetting is thus, to put it in economists' terminology, a way of internalizing the "externalities" of one's emissions. In other words, it means that the emitter pays for all the social costs related to his emitting activities. This is in general a popular idea among libertarians as well.<sup>57</sup>

All measures of offsetting are external to the agent's own activities, in the sense that they either amount to helping others *produce less* greenhouse gases, or to helping nature *absorb more* of the gases already produced. Investing in projects that generate renewable energy, for instance via solar panels and wind farms, is an example of the first kind of offsetting. Investing in projects that plant carbon-absorbing trees, or developing methods for capturing carbon in underground storage facilities (to the extent it works), are examples of the second kind. The gist is that offsetting lets you neutralize your total emissions. Thereby, the idea goes, you also make sure they give rise to no boundary-crossings, meaning that you may continue to emit even luxuriously!

The problem with this idea, however, is that while one's emitting acts produce greenhouse gases immediately, one's offsetting acts that reduce greenhouse gases do so only after some time. To fly from New York to London and back, for instance, will emit more than a ton of greenhouse gases during the flight.<sup>58</sup> But the time it takes to offset one ton, via whichever offsetting program one may choose, is most likely far longer than that. Consequently, one's offsetting will not appropriately affect the same particular people that are affected by one's emissions. Given that one's luxury emissions cross the boundaries of *particular* people, one's offsetting cannot assure that these emissions do no wrong from the libertarian perspective.

But, even if offsetting one's luxury emissions does not undermine the boundary-crossing aspects of those emissions, doing so might undermine the reason other people have for dissenting – or at least not consenting – to those emissions. If people's lack of consent to other people's luxury emissions is based on the fact that these emissions altogether give rise to harm and damage via climate change (as I have argued above), and if offsetting measures can make sure that people's luxury emissions do not contribute to climate change (as is here assumed), then offsetting may in fact undermine the reason for people's lack of consent. Of course, this does not ensure that people *actually* would consent to these emissions. But given that people *would* do it, offsetting provides an alternative to stop emitting luxuriously.

There are, however, many practical complications with offsetting, not least from a libertarian point of view. First, there is the obvious restriction that our offsetting must not violate anyone's rights. The offsetting projects in which we invest must not

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<sup>57</sup> See, for instance, Segerfelt (2005), Adler (2009), Epstein (2009), Brennan (2012) and Friedman (2014: §64).

<sup>58</sup> This example is from Broome (2012: 74).

involve any unwarranted coercions or other instances of infringements. Second, our offsetting must be additional, which means that the reductions in question would not have happened even if we had not made our offsets. Otherwise the emissions that we reduce through our offsetting measures will not really even out the luxury emissions we make.<sup>59</sup>

At any rate, the fact that climate change now occurs, and that the annual emissions of greenhouse gases are as high as they are, is evidence that most luxury emitters do not successfully offset their emissions. Among those who do purchase emissions offsets, there is reason for doubting that they do it to a sufficient extent. Merely offsetting the emissions of one's flights, electricity or hamburger meals (as is sometimes offered by the providers of these products) is not sufficient in order to neutralize all of one's luxury emissions. Since neither compensation nor offsetting is presently successful as means for justifying the infringements that are due to our luxury emissions, libertarianism implies that these amount to rights-violations and are thus impermissible. Hence libertarianism requires that we stop emitting luxuriously or, alternatively, that we start offsetting our luxury emissions completely.

### 3.4. Concluding the Chapter

In this chapter, I have argued that although our individual emissions in separation would cause no harm to other people, our luxury emissions cross the boundaries of some other people without their consent. Therefore, according to libertarianism, these emissions amount to infringements. Moreover, I have argued that there is no independent justification for these infringements, although there is an alternative to stop emitting luxuriously – namely, to offset all of our luxury emissions completely. At present, however, most luxury emitters do not offset their luxury emissions completely. Therefore, these luxury emissions violate people's rights, thus making them impermissible according to the non-aggression principle.<sup>60</sup>

I have reached this conclusion without taking into account the lives of future people (to be discussed in chapter 7), and without taking into account any possible joint responsibilities we might have regarding climate change (to be dealt with in chapter 8). I have also ignored the mere risks associated with climate change (which are discussed in chapter 5). Moreover, I have so far neglected any libertarian proviso for appropriations of the natural resources used in our emitting activities. Taking such provisos into consideration yields additional restrictions for our emitting activities. That is the aim of the next chapter.

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<sup>59</sup> C.f. Broome (2012: 87-9).

<sup>60</sup> Of course, if circumstances change, then the luxury emissions might not be impermissible. Hence, the wrong-making feature of people's luxury emissions is *contingent*, meaning that people's luxury emissions are *not necessarily* impermissible.

## 4. Appropriation of Climate-Relevant Resources

In chapter 3, I did not address the question as to whether individuals own – and thus have legitimately appropriated – the external resources they use when performing their emitting activities. In the present chapter, I do so by examining to what extent these climate-relevant resources are legitimately appropriated on libertarian grounds. If (or to the extent) they are not, libertarianism implies restrictions on our emitting activities already at this stage. More exactly, libertarianism then implies that we do not have the right to use them as we do in our emitting activities. In effect, then, libertarianism requires that we make rectifications for these excess appropriations, either by returning them to their rightful owners (or, if they are previously unowned, to the commons) or, if possible, by paying suitable compensation to everyone affected by those appropriations.

I shall in the first section make some clarifications regarding the libertarian constraints on external appropriations and regarding the particular resources that are relevant in the climate context. In three sections below, I then explicate and apply the different versions of libertarianism that can be discerned regarding external appropriations. Finally, I comment on libertarianism's answer to a closely related political question regarding how emission rights should be distributed.

### 4.1. Climate-Relevant Resources and the Issue of Appropriation

Almost anything we do gives rise to greenhouse gases, which in turn contributes to the warming of our planet. Many of our activities involve emissions in themselves (e.g., when we drive our cars or fly on vacation), whereas other activities involve emissions mainly when produced (e.g., when we eat, buy goods or use electricity to heat and illuminate our homes). However, these particular activities amount to usages of natural resources of a more general kind. I am here thinking of resources such as fossil fuels (i.e., oil, coal and natural gas), land, forests, and the atmosphere (considered as a carbon sink).

In relation to climate change, the fossil fuels are relevant since they are extracted and burned for the sake of energy production (which produces greenhouse gases); the lands and forests are relevant since they are cleared from vegetation (that would otherwise have absorbed greenhouse gases) for the sake of space and materials; the atmosphere is relevant since we are dumping more greenhouse gases into it than it is capable of absorbing. Throughout this chapter, I focus on these particularly *climate-*



*relevant* resources. Moreover, I shall be concerned exclusively with questions regarding *appropriations* of such external resources, and so I shall not be concerned with mere ownership or usage of already owned resources. Before I start the investigation, I wish to make some clarifications of these remarks.

### *The Libertarian Constraints on External Appropriations*

To appropriate a resource is, roughly speaking, to take possession of that resource. Sometimes “appropriation” is used as a moral success-concept, denoting a process of becoming the *moral owner* of the resource. In the libertarian literature, however, the term is often used in a neutral sense that does not discriminate between acts of appropriations that generate moral ownership and those that do not. This makes it possible to, in a meaningful way, talk about and distinguish between acts of appropriation that generate moral ownership and those that do not. I shall here follow this usage.

Appropriations typically concern *external* resources (i.e., extra-personal), which are either *unowned* (i.e., belong to the commons) or *owned* (i.e., belong to one or more persons).<sup>61</sup> An appropriation is *original* if it concerns previously unowned resources, while it is *non-original* if it concerns previously owned resources. According to the libertarian theory of appropriation, explained in chapter 2, an act of original appropriation of a resource – or “original acquisition of holdings”, to use Nozick’s (1974: 150) term – may consist in discovering, labor-mixing, using or merely being the first to claim a resource.<sup>62</sup> An act of non-original appropriation – or “transfer of holdings”, to use Nozick’s (1974: 150) term – can be done via purchase, exchange, gift or compensation (as rectification). Obviously, any holding of external resources requires some kind of act of original appropriation by some person at some point in history. As Hillel Steiner puts it: “*nothing gets made from nothing*. All made things have natural resources as ancestors” (2009: 2-3).

All versions of libertarianism imply that acts of appropriations are impermissible if they involve rights-violations. For instance, appropriations that involve theft or fraud are impermissible, since they as such amount to rights-violations. As this moreover suggests, any non-original appropriation of a resource is also *illegitimate* on libertarianism – meaning that it fails to generate moral ownership of the resource on part of the appropriator – whenever it violates the rights of the owner of that resource (as in cases of theft or robbery). This uncontroversially follows from the control and immunity rights, as presented in chapter 2.

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<sup>61</sup> Slave trading involves appropriation of persons (i.e., non-external resources). In the climate context, however, external resources are of main interest. External resources are either *natural* (e.g., forests, land, minerals, etc.) or *artificial* (e.g., art, buildings, cultivated land, etc.). However, no argument in this dissertation will depend upon this distinction.

<sup>62</sup> Nowadays most original appropriations are conducted not by separate people but by companies. I shall here use “agent” neutrally so as to denote both individuals and collectives. Still, I will stay truthful to the libertarian individualist stance according to which collective moral agency is reducible to individual moral agency. In chapter 8, I explain how responsibility for collective activities can be allocated to the individual members of those collectives.

As was also mentioned in chapter 2, many versions of libertarianism impose an additional “fair share” constraint on appropriations in order for them to be morally legitimate. To repeat, this constraint originates with John Locke, whose proviso states that individuals may privately appropriate external resources only to the extent they leave “enough and as good” for others (1689: Ch. V, §27). At present, however, libertarians disagree whether or not any such proviso should be accepted, or, if so, what it would require in detail. There are thus many ways of characterizing and individuating the different versions of libertarianism that can be distinguished with regard to the proviso. The rationale behind the list of versions I discuss in the upcoming sections is that those versions more or less exhaust the positions discussed in the literature.

It should be stressed, however, that *any* illegitimate act of appropriation (original or not) fails to generate moral ownership of the resources involved. A plausible implication of this is that, in the real world, not all property that is legally sanctioned is morally legitimate on libertarianism. In other words, their possessors do not have any moral rights over those resources. As we shall henceforth focus on moral ownership, I will from now on use “ownership” as short for “moral ownership”.

In chapter 2, we moreover saw that libertarians maintain that ownership of a resource consists of a set of rights over that resource. The most important of those rights is the *control right* over the use of the resource: the liberty right to use it and the claim right that others not use it. More precisely, ownership of a resource implies the right to *exclusive* use of – in other words, use that prevents others from using – that resource. This also means that libertarianism gives agents rights to exclusive use of *their own* property only: No one has the right to exclusively use resources that are not theirs (unless the rightful owners, if any, permit such use).

This is where the question of appropriation proves to be relevant to climate change. For if people do not morally own the resources they use in their emitting activities, their emitting activities might be morally condemned already on *that* basis. As it seems, the only thing agents are allowed to do with such resources is to return them to the commons (i.e., for everyone to use) – or, if they are previously owned, to their rightful owners.

Sure, not all uses of resources are *exclusive* uses. Some uses are indeed *non-exclusive* uses. When I eat an apple, for instance, I exclusively use that apple – I indeed consume it – and thus exclude others from using it. But when I bathe in the sea, for instance, I use the sea merely non-exclusively, and so I do not exclude others from using it too. Hence, it does not follow from the mere supposition that libertarianism gives people the right to exclusive use only of the resources they own, that libertarianism forbids people from using unowned resources non-exclusively.

However, most of our uses of climate-relevant resources are exclusive uses. When we burn oil, coal and gas; when we clear and cultivate the lands; when we cut down and manage forests; and when we exhaust the atmospheric capacity – we indeed *consume* some tokens of these resources. And, thereby, others are excluded from using these tokens of resources. Thus, it seems as if libertarianism after all implies that our climate-relevant activities are permissible only to the extent we own

– and thus have legitimately appropriated – the resources needed for performing these activities.

Still, it does not follow from the assumption that libertarianism gives us the right to exclusive use only of the resources we own (or are permitted to use by the owners), that we are forbidden to exclusively use unowned resources. Even if *no one* owns the berries in the woods, for example, *anyone* is permitted to eat them (i.e., to use them exclusively). Plausibly, agents are allowed to use resources that they do not already own. If that were not the case, then the labor-mixing theory of original appropriation would not make sense, and original appropriation would be impossible. Interestingly, the labor-mixing theory implies that any exclusive use of unowned resources constitutes an act of appropriation of those resources. The main question is what it takes for such an appropriation to be legitimate (i.e., to generate ownership).

It is important to note that whether an illegitimate act of appropriation is wrong (impermissible) depends on whether it violates any rights (as settled by the non-aggression principle). As I shall argue below, however, all versions of libertarianism that accept a proviso imply that proviso-violations amount to rights-violations – although they give different explanations as to how.<sup>63</sup>

#### *A Note on the Possibility to appropriate Climate-Relevant Resources*

There are many general questions concerning the libertarian theory of appropriation. For instance, why is the mixing of my labor with something making that thing my own, rather than making my labor unowned? And why does something become my private property just because I happened to grab it first? And how could my fencing in of an area make that *entire* area my own, rather than the mere spots that my fence occupies?<sup>64</sup> For the sake of argument, I here sidestep these concerns, and simply examine the normative implications of the libertarian theory of appropriation for the various climate-relevant resources.

While it is fairly intelligible how forests, land, and fossil fuels could become appropriated, it seems to me more questionable as to whether the atmosphere could at all be appropriated. However, some have argued that it can. Murray Rothbard, for instance, does so when asking rhetorically: “[H]ow about air pollution? How can libertarians possibly come up with a solution for this grievous problem? Surely,

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<sup>63</sup> Whereas most libertarians think that the proviso constitutes a condition for successful appropriation (i.e., a condition for when an appropriation results in ownership), they tend to disagree on how failure to meet the proviso relates to wrongdoing. One interpretation is that the proviso states an additional criterion for permissible action, separate from the criterion stated by the non-aggression principle. Another interpretation is that the proviso identifies certain rights that people have naturally with regard to external ownership (e.g., they initially own the world jointly) – rights that are violated whenever people appropriate these resources without the consent from others. A third interpretation is that the proviso identifies a compensation right that people have conditionally on other people’s appropriations of external resources – rights that are also protected by the non-aggression principle. These different interpretations will be brought up and discussed in what follows.

<sup>64</sup> Similar concerns are raised by libertarians themselves. See, for instance, Nozick (1974: 174-5).

there can't be private property in the air? But the answer is: yes, there can." (1973: 319). In a similar manner, Peter Railton assumes that "[b]y rendering a portion of the atmosphere toxic, [an agent] has in effect appropriated it from the commons..." (1985: 194). Basically, the idea here is that the atmosphere may be seen as a natural resource that we use when we perform emitting activities.<sup>65</sup> When we emit greenhouse gases, we utilize the atmosphere as a dumping place, and hence exhaust its absorptive capacity. Given that the atmosphere is thus something with which the emitter mixes his labor, we might say – on the basis of the labor-mixing theory – that the atmosphere is something that he appropriates in proportion to his emissions. Or so the idea goes.

Even if one disagrees with this line of reasoning, one could ask, as does Luc Bovens (2011: 8): "How is it that property rights in land are so different from emission rights? Certainly there are differences, but do any of these differences provide good reason to retain the right libertarian intuition for property rights in land, yet not retain it for emission rights?" Bovens argues that none of the differences in question do so, since the basic resources (i.e., land and the atmosphere, in his example) share a critical feature:

Land and the atmosphere are resource systems. What we consume is some portion of a particular capacity of the resource system. In the case of land, we consume a portion of the produce-yielding capacity of the land. In the case of the atmosphere, we consume a portion of the absorptive capacity of the atmosphere – i.e. the capacity of the atmosphere to neutralize GHGs [greenhouse gases] over time so that they do not have any detrimental effect on the climate. (2011: 8)

Bovens goes on to argue that we could therefore treat the atmosphere similarly to how we treat other common pool resources. For instance, the fish-yielding capacity of the seas cannot be divided through segmentation of the seas, but still different fishing rights can be divided in terms of fishing quotas of the sea's fish-yielding capacity.<sup>66</sup> Similarly, as Bovens (2011: 10) claims, "...in the case of the atmosphere, we cannot assign segments of the atmosphere to give shape to these claim rights. The only thing that we can do is to impose quotas [of the atmospheric absorptive capacity]"

I still find it is questionable whether the atmospheric absorptive capacity can be privately appropriated – not least via emissions of greenhouse gases. For one reason, the gist of the labor-mixing theory seems to be that the mixing with the resource must be something that the laborer himself is aware of, and also something that he

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<sup>65</sup> This is a quite common view. Attfield (2015: 84), for example, says that "the capacities of the atmosphere to assimilate carbon dioxide and of the oceans to dissolve minerals are best regarded as resources". See also Singer (2010), Bovens (2011), Broome (2012) and Caney (2012).

<sup>66</sup> According to Bovens (2011), this is actually how fishing rights have been divided within the EU.

intends – at least if it is to be counted as an act of appropriation of that resource. If the mixing with the resource (say, carbonizing the atmosphere) is just an unforeseen and unintended side-effect of some separate labor (say, lightning a fire for cooking), then it is implausible to assume that the resource at stake (i.e., the atmospheric capacity) is thereby being appropriated.

However, we do not have to take a stand here as to whether we can successfully appropriate the atmospheric absorptive capacity. Since the libertarian theory of appropriation implies that an agent's use of a resource *constitutes* an act of appropriation of that resource, we can at least regard our emissions as *attempted* (however unsuccessful) acts of appropriation of the atmosphere. Moreover, since we obviously *use* the atmospheric absorptive capacity when we dump carbon dioxide into it, it might be that we *over-use* it in a sense that is at odds with the libertarian proviso.

Let us now turn to the different versions of libertarianism, that may be distinguished with respect to the proviso, and investigate their implications for appropriations of climate-relevant resources. I will start with the Lockean version of libertarianism, and then spell out the two branches (left and right) of libertarianism that have evolved therefrom.<sup>67</sup>

## 4.2. Lockean Libertarianism

Locke himself thought that all external resources initially belong to people in common, as he assumed that it is “God, who hath given the world to men in common” (1689: Ch. V, §26). He moreover thought that “[t]he earth, and all that is therein, is given to men for the support and comfort of their being” (ibid.). For this reason, he assumed that “no body has originally a private Dominion, exclusive of the rest of Mankind” (ibid.). On the basis of these passages, one might think that the issue of *original* appropriation of external resources is already settled in Lockean libertarianism – as all external resources have already been *given* by God to people in common. Still, Locke apparently thought that it was possible for individuals to privately appropriate external resources from the commons – by means of labor-mixing. For this reason, a charitable reading of Lockean libertarianism has it that the world “belongs” to everyone not in the sense that they jointly *own* it, but rather in the sense that they all have moral access to privately use and appropriate it.<sup>68</sup> (A joint-ownership version of libertarianism will be discussed in the next section.)

As hinted at in the previous section, Locke's purported proviso requires for any act of private appropriation of external resources that “there is enough, and as good, left in common for others” (1689: Ch. V, §27).<sup>69</sup> Sure, it is unclear how this should

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<sup>67</sup> I follow Vallentyne and van der Vossen (2014) in my labeling of these views.

<sup>68</sup> Consider Mack (2010: 56) on this issue.

<sup>69</sup> Locke also endorsed a no-waste proviso (according to which individuals are allowed to appropriate resources only to the extent they can put them to good use). Due to the very un-libertarian spirit of that proviso, I will not discuss it here. See Bovens (2011) for a discussion regarding its implications for the climate issue.

be understood more precisely. Consequently, it is unclear exactly what Lockean libertarianism has to say about appropriations of climate-relevant resources. For one thing, it cannot be taken to mean that the first appropriator must leave to others the same amount of resources as she could take from. That would, as Judith Jarvis Thomson observes, imply that “...no one can come to own anything, for there are only finite many things in the world so that every taking leaves less for others” (1990: 330).

Instead, the quotes above suggest that the “enough and as good”-clause requires that we leave to others natural resources that are sufficient “for the support and comfort of their [i.e. others’] being”. Perhaps the occurrence of “enough” indicates that Locke had a *sufficientarian* idea in mind – meaning that we must leave to others an amount of resources that is sufficient for satisfying basic needs, or the like.<sup>70</sup> Perhaps the occurrence of “as good” is supposed to imply that there should be resources left so that others could lead lives at the same level of well-being as the appropriator. For the sake of consistency with the overall libertarian view, I here assume that Locke’s proviso allows people to appropriate resources only to the extent that they leave enough relative to what is required for others to live somehow comfortable lives. I take the “in common for others”-clause to indicate that this must be true for *all* others.<sup>71</sup>

When it comes to the atmospheric absorption capacity, Bovens has claimed that “appropriations of the atmospheric absorption capacity have gone far beyond what is permissible on the enough-and-as-good condition” (2011: 11). He argues, however, that this condition has been violated only recently – since the last decades or so. Certainly, the first appropriators did not violate it, since their appropriations did not leave less than enough and as good for others. The relevant time-line here, according to Bovens, is the point where the absorptive capacity of the atmosphere was met, in other words when the “commons were closed”. In effect, he argues, emitters “carry responsibility for expanding their emissions *past* the time that the commons were closed” (2011: 26).

I think that there are several problems with this line of reasoning. First, the presumed time-sensitivity has some noteworthy implications. For instance, if I appropriate a certain amount of resources just before the limit set by Locke’s proviso is reached, and you appropriate only a tenth of that amount right after that limit is reached, then I seem to be on the right side of morality whereas you are not. However, if I had appropriated just a tenth less, then your appropriation would have been all right. This cannot plausibly be what Locke had in mind when stating his proviso.

In relation to this, there appears to be a looming regress problem for Locke’s proviso, as the first appropriator seems to be at fault for his appropriation simply with reference to the subsequent appropriations made by others. This problem is

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<sup>70</sup> This suggestion is in the spirit of Simmons (1992, 1993, 1995) and Lomasky (1987).

<sup>71</sup> The exact number of people depends on whether we should take into account only presently living people or also those of future generations. This issue is relevant to all forms of libertarianism that accept some kind of proviso. I deal with this issue more thoroughly in chapter 7.

observed by Nozick:

Consider the first person Z for whom there is not enough and as good left to appropriate. The last person Y to appropriate left Z without his previous liberty to act on an object, and so worsened Z's situation. So Y's appropriation is not allowed under Locke's proviso. Therefore the next to last person X to appropriate left Y in a worse position, for X's act ended permissible appropriation. Therefore X's appropriation wasn't permissible. But the appropriator two from last, W, ended permissible appropriation and so, since it worsened X's position, W's appropriation wasn't permissible. And so on back to the first person A to appropriate a permanent property right. (1974: 176)

This "zip back"-argument has it that as long as there is a shortage of a certain resource (as determined by the Lockean proviso), then *any* appropriator of that resource is guilty of violating the proviso.

It should be noticed here, though, that the "zip back"-argument might not pose a real threat to Locke's proviso after all. First, Locke may have thought only that there must be enough and as good left for others to *use* – and not appropriate. Moreover, we cannot look only at the amounts of resources that a specific appropriation concerns in order to determine whether it violates the proviso. We also need to look at how the appropriations affect the quantities and qualities of the *remaining* resources. In fact, thanks to all those appropriations that have been made in the past, we now have the possibility of appropriating resources that would have been unavailable (and perhaps even useless) had these past appropriations not taken place. For instance, previous extractions of fossil fuels have enabled the industrial revolution, which in turn has given us the opportunity to extract yet more fossil fuels by means of methods such as hydraulic fracturing and deep-water drilling. Because of this, we cannot so easily determine whether appropriations of the atmospheric capacity – or any other resource for that matter – really have gone far beyond what is allowed according to Locke's proviso.

As the sustainability sciences reveal, however, our current resource management is unsustainable: It does not leave all people the possibility to satisfy even their basic needs.<sup>72</sup> Moreover, it is widely reported that natural resources are *in general* being overused, and many are even on the verge of depletion. It may be that, quantitatively speaking, more natural resources will be found in the future. But, despite the technical evolution, it is highly questionable whether these will be enough for people. It is also questionable whether they will be as good from a perspective of quality (due to less availability, etc.), as those that have hitherto been appropriated. Some people already appear to be left with less than needed for their survival. This suggests that

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<sup>72</sup> In support of this claim, see Rockström et al. (2009), and the website <http://www.theworldcounts.com/>. See also data on World Resource Forum ([www.wrforum.org](http://www.wrforum.org)), and the studies in the journal Sustainability Science: [www.springer.com/environment/environmental+management/journal/11625?hideChart=1#realtime](http://www.springer.com/environment/environmental+management/journal/11625?hideChart=1#realtime)

some people have consumed (and hence appropriated) resources to an extent that conflicts with Locke's proviso.

It has been argued, however, that the present scarcity of natural resources yields a completely different Lockean implication. For instance, contemporary libertarian David Schmidtz claims that:

The Lockean Proviso, far from forbidding appropriation of resources from the commons, actually requires appropriation under conditions of scarcity. Removing goods from the commons stimulates increases in the stock of what can be owned and limits losses that occur in tragic commons. [...] When resources become scarce, we need to remove them if we want them to be there for our children. Or anyone else's. (2008: 200)

Another present-day libertarian, Jason Brennan, argues similarly that,

if you want to encourage people to conserve a resource, you should give them the resource as *property*. [...] When a resource is held in common, everyone has an incentive to overexploit the resource. [...] Property rights give people long-term stakes in resources. Few people dump oil in their own living rooms and pools, but plenty dump oil in public lakes. (2012: 157-8)

Schmidtz's and Brennan's common idea, like that of many other libertarians, is that the market via privatization of scarce natural resources can resolve the natural resource crises.<sup>73</sup> When a certain (type or token of) resource is removed from the commons to private ownership, then the interests of the owner will make sure that the resource is preserved.

This idea, however, is not unproblematic. First, even if the Lockean proviso would *allow* people to privatize natural resources in order to save them from depletion, it would not (as supposed by Schmidtz) *require* anyone to do so. To think so would be to accept that there are unconditional positive duties, which is at odds with libertarianism. Second, although the presumed correlation between privatization and conservation might hold in some (or even many) cases, it does not hold generally. In fact, many appropriators – not least of forests, land and fossil fuels – deplete their resources for the sake of maximizing short-term profit, and then simply move on to appropriate new parcels of resources to deplete. Far from all owners of rainforests, for instance, have used their forests in a sustainable way. Instead they have cut or burned their forests down in order to give room for things like cattle breeding or oil palm plantations. For these reasons, privatization cannot be a general solution to the over-use of climate-relevant resources.

Even in those cases where privatization of natural resources does work as a means of conservation, it cannot in itself guarantee that Locke's proviso is fulfilled.

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<sup>73</sup> See, for instance, Rothbard (1973: Ch.13), Adler (2008), Epstein (2009), Segerfeldt (2005) and Friedman (2014: §26).



The present scarcity of natural resources, in combination with existing poverty (and inequalities) around the world, suggests otherwise: Those who suffer from extreme poverty clearly do not have enough and as good (and even those who do not suffer from poverty but have very little do not have as good). Moreover, climate change (being the result of resource overuse) might eventually lead to an extinction of the human species. We therefore have reason to think that Lockean libertarianism is quite restrictive with regard to appropriations of climate-relevant resources.

Supposing that Locke's proviso is a condition for legitimate appropriation, we may first of all infer that any excess appropriation fails to generate ownership of the resources involved. As mentioned toward the end of the previous section, libertarians tend to think that such (i.e., illegitimate) appropriations are also wrong (impermissible). It is not exactly clear how this should be explained, however. One way to explain this would be by assuming that the proviso states an additional criterion for permissible action, separate from the criterion stated by the non-aggression principle. This seems to be the take of Eric Mack, who argues that there is "an alternative Lockean explanation for the wrong done by the [agent]. This is that the [agent] violates the Lockean proviso" (2010: 70). Another way of explaining why an act of appropriation is impermissible if it violates Locke's proviso is by assuming – contrary to my stance above – that people initially *own* all natural resources in common. Then, excess appropriation (as determined by the proviso) amounts to the use of something that is not one's own but rather belongs also to other people. If the appropriation is done without the consent of these other people, then it is impermissible. I discuss this idea more thoroughly in the coming section.

However, not all libertarians would think that my interpretation of Locke's proviso is the most plausible one. And some would insist that there is no room for any proviso whatsoever within the libertarian view. As mentioned earlier, two branches of libertarian thought (regarding the possibility to appropriate external resources) have evolved since Locke's time: left-libertarianism and right-libertarianism. In what follows, I will explicate and apply different versions of these branches, one at a time. I start with the most restrictive version, and move successively toward the least restrictive version.

### 4.3. Left-Libertarianism

Left-libertarianism is the most recent species of the libertarian family. It is also the most restrictive among libertarian views regarding private appropriations of external resources. Characteristic of left-libertarians – such as Peter Vallentyne, Hillel Steiner (1994, 2009) and Michael Otsuka (1998, 2003) – is that they think all external resources initially belong to everyone in some egalitarian manner. Left-libertarians thus stand out from other libertarians in accepting private appropriation of external

resources conditional on an egalitarian proviso.<sup>74</sup> Nevertheless, left-libertarians tend to disagree on the exact role and content of the egalitarianism they endorse. I here consider three versions of the view, all of which have been discussed in the literature.

Although the different versions of left-libertarianism embrace different requirements on external appropriation, I will argue that – given the present state of the climate-relevant resources and the presently existing inequalities in the world – none of them allow for the massive appropriations of resources that precede and enable human induced climate change.

### *Joint-Ownership Left-Libertarianism*

Joint-ownership left-libertarianism, to start with, is the most radical left-libertarian view. It emphasizes the Lockean idea that all natural resources initially belong to all people in common. More precisely, it states that all external resources are initially *owned* by people jointly, and that private appropriations of such resources are thus permitted only given the consent from everyone else (i.e., all other individuals of the collective of people as a whole). Strands of this idea are proposed by, for instance, Gerald A. Cohen (1995), and discussed by Vallentyne and van der Vossen (2014: 10).<sup>75</sup>

Given the joint-ownership assumption, the issue of *original* appropriation of external resources is already settled on joint-ownership left-libertarianism. One might therefore think that there is not much of interest to say about appropriation from this particular perspective. However, there is still a question concerning the possibility of *private* (i.e., personal) appropriation, which I here discuss.

However, joint-ownership left-libertarianism is very restraining with regard to private appropriations. This is due to the simple fact that it is very hard (if at all possible) to receive consent from *every* other individual in the collective. This primarily does not relate to people's psychological makeups, but rather the sheer size of the collective of people that is taken to jointly own the external resources.<sup>76</sup>

Given the role of *implicit* consent, discussed in chapter 3, joint-ownership libertarianism would perhaps allow individuals to appropriate such external resources

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<sup>74</sup> This proviso implies a conditional positive duty that may at first glance seem utterly unlibertarian. But left-libertarians are careful to point out that it is indeed consistent with people's self-ownership, since it applies only to agents who (and the extent to which they) appropriate external resources.

<sup>75</sup> It is, however, unclear whether there are any living advocates of this position today.

<sup>76</sup> On the assumption that we are dealing with *collective* ownership, one might argue that a *majority*-reading of "consent" (where the majority, and not exactly *everyone*, of the collective must agree to the privatization) would make sense. See Vallentyne and van der Vossen (2014: 10), Vallentyne, Steiner and Otsuka (2005: 202), and Vallentyne (2007b). On this reading, for the collective to consent to one individual's private appropriation *is* for a majority of individuals of that collective to consent to that appropriation. However, the majority reading appears to be inconsistent with libertarianism's individualistic stance. And, even under such a reading, joint-ownership libertarianism would plausibly bar any extensive private appropriation of climate-relevant resources, as a majority of individuals will not consent to them.

(food, water, air, etc.) that all the other individuals of the collective appropriate as well. However, although this might be true when it comes to *such* resources, there is certainly no all-encompassing implicit consent to any extensive appropriations of climate-relevant resources. As argued in chapter 3, there is no relevant consent with respect to our luxury emissions. If we have reason to assume that people dissent to our luxury emissions because they lead to climate change, then we have reason to assume that people also dissent to the appropriations that precede such emissions. At least this holds for people's "luxury" appropriations of natural resources – that is, roughly, of more resources than needed for satisfying basic needs.

One could perhaps argue that although joint-ownership left-libertarianism does not allow for nonconsensual private appropriation of external resources, it may allow for nonconsensual *use* of such resources.<sup>77</sup> Even so, joint-ownership left-libertarianism would not grant individuals any private rights to their collected and cultivated resources, and hence they could not be morally secured that others not use them. In turn, long-term investments and future plans for action would be practically impossible. In the actual world, such investments and future planning seem to have been a precondition for the industrial revolution that led to climate change. Without the industrial revolution, and the high-tech artificial resources that have been developed as a result, there would most likely not be any substantial emissions today.

Consequently, joint-ownership left-libertarianism is quite restrictive anyway, and in effect yields quite climate-friendly implications. It not only implies that nonconsensual external appropriations are illegitimate, but also that they are wrong. Because, when someone privately appropriates climate-relevant resources without the permission of the collective, he actually uses resources that are also owned by others – and so without their consent. Thus he violates their rights, meaning that his act is impermissible.

It must be declared, however, that most libertarians – even leftists – think that individuals are allowed to some *non*consensual private appropriation for their plans for actions and safeguarding of future survival.<sup>78</sup> Also, the joint-ownership component might appear incoherent with libertarianism's underlying individualist stance. Therefore, other versions of libertarianism, which do allow for external appropriation even without the consent from others, turn out to be more faithful in relation to the libertarian core ideas. These versions are discussed next.

### *Equal Share Left-Libertarianism*

Equal share left-libertarianism allows for nonconsensual private appropriation of external resources. It is advocated by, for instance, Hillel Steiner (1994, 2009), and it comes with an interpretation of the Lockean proviso according to which each and every individual is allowed to privately appropriate resources only to the extent that

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<sup>77</sup> See Vallentyne and van der Vossen (2014: 10), who attribute this view to Grunebaum (1987).

<sup>78</sup> See, again, Vallentyne and van der Vossen (2014: 10).

there is an equally valuable share of resources left for each other individual (whether or not each individual actually appropriates her individual share).

Equal share left-libertarianism is compatible with the view that the world is initially owned by people in common (as is claimed in joint ownership left-libertarianism). It is, in this form, simply an interpretation of “joint ownership” in terms of equal shares: For people to own the world in common *is* for them to individually own an equal share of it. However, equal share left-libertarianism is also compatible with the view that the world is initially *unowned* (as claimed by the positions to be discussed below). On either view, it is moreover possible to read equal share left-libertarianism in two different ways: one in which it focuses on each resource in *isolation* from the other resource, and one in which it focuses on resources in *integration*.<sup>79</sup>

When it comes to the isolationist reading, it is fairly easy to see what equal share left-libertarianism implies given the present state of the climate-relevant resources. If we start with oil, the reports on “peak oil” and the massive extractions that have taken place hitherto suggest that the world’s total oil reserves are being depleted at a speed that leads to at least some people being left with less than an equally valuable share of this particular kind of resource. This seems to hold also in connection to the other kinds of fossil fuels (i.e., coal and natural gas), as well as to the world’s lands and forests. Regarding forests in particular, Greenpeace International reports that

[a]round the world, lush tropical forests are being logged for timber and pulp, cleared to grow food, and destroyed by the impacts of climate change. Four fifths of the forest that covered almost half of the Earth’s land surface eight thousand years ago have already been irreplaceably degraded or destroyed.<sup>80</sup>

If this is correct, then only one fifth of the forests that once covered the world’s surface (prior to any substantial human intervention) now remain. Even at our present time, primeval forests – meaning forests mainly untouched – are being cut down at a rapid rate.<sup>81</sup> Since *both* the initial cuttings (i.e., “logging” and “clearing”) *and* the subsequent destructions (i.e., exclusive final uses) amount to acts of appro-

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<sup>79</sup> Several ways of individuating the different resources are open. Should we, for instance, interpret “forests” as a specific class of resource, of which rainforests, mangrove forests, boreal forests, etc. are tokens? Or should we interpret each of these tokens as specific resources themselves? Fortunately, there seems to be a conventional way of individuating resources here: one that takes into consideration the specific roles and functions filled by different resources for human purposes. Following this approach, we may distinguish oil from coal from natural gas from forests and so on, without making more fine-grained individuations of these resources. In other words, there is no need here for differentiating different tokens of oil, coal, gas, forests and so on.

<sup>80</sup> See <http://www.greenpeace.org/international/en/campaigns/forests/threats/>. On many occasions, acts of deforestation are direct instances of acts of appropriations of the land. Moreover, it is reported to correspond to 17% of all the greenhouse gas emissions, based on the decreased absorption of these gasses.

<sup>81</sup> See Attfield (2015: 88-91) and Hammond (1994: 6-11) for empirical evidence to this claim.

priation, it is beyond doubt that many agents have failed to leave lands and forests of an equal per capita quantity left to others.

When it comes to the atmospheric absorptive capacity, equal share left-libertarianism implies, plausibly, that each and every one should have an equal share of this resource. The most reasonable way to understand this is that the size of each share should be determined by the total atmospheric capacity, divided by the total number of people alive on the planet. Scientific estimates say that the atmosphere – including all natural carbon sinks – is capable of absorbing roughly 11 billion metric tons of human induced carbon dioxide equivalents per year. If we, for the sake of simplicity, stick to the estimates according to which the world population will stabilize at around 11 billion people, then equal share left-libertarianism allows each person to emit around 1 ton of greenhouse gases annually.<sup>82</sup>

If some people emit more than their annual per capita share, then the remaining amount of absorbable gases will be lowered for others. According to Lockean libertarianism, as spelled out previously, this seems to imply that those others are not permitted to emit an equal per capita share. Conversely, if some people had appropriated less than their share, then the rest would be allowed to appropriate more than an equal per capita share. However, according to equal share left-libertarianism, the size of one person's share is *not* influenced by the size of the shares that are actually appropriated by other people. Those who have emitted more than their fair share have simply emitted too much. Consequently, such appropriations of the atmospheric capacity are illegitimate on equal share left-libertarianism. As suggested by the climate sciences, this appears to be true of most luxury emitters today, as they emit far more than 1 ton of greenhouses annually.<sup>83</sup>

If we abandon the isolationist reading of “resources” in favor of an *integrationist* reading, things appear in a different light. Equal share left-libertarianism then accepts that one kind of natural resource (e.g., fossil fuels) be substituted for another kind of natural resource (e.g., forests). Given this understanding, one single agent may in principle appropriate all there is of one kind of resource (say, oil), if there are still enough of other kinds of resources (say, forests, minerals or seas) for other people to get an equally valuable per capita share.

Surely, something must then be said about how different kinds of resources shall be evaluated and compared to one another. What is relevant in this regard, according to equal share left-libertarianism, is, as Vallentyne puts it (2009: 17), “the *competitive value* (based on demand and supply; e.g., market clearing price or auction price) under morally relevant conditions” of the resources. Whatever we take “morally

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<sup>82</sup> Before the world population reaches 11 billion, however, people would be allowed to emit a bit more. See, for instance, Chancel and Piketty (2015: 15): “The sustainable level of CO<sub>2</sub>e [carbon dioxide equivalents] to emit per person per year, from now to 2100 is approximately 1.2tCO<sub>2</sub>e”. See also, for instance, <http://www.globalcarbonproject.org>, Page (2011) and IPCC (2014).

<sup>83</sup> See Chancel and Piketty (2015), and the statistics from, for instance, The World Bank: <http://data.worldbank.org/indicator/EN.ATM.CO2E.PC>. See also the information at Unstats: [http://unstats.un.org/unsd/environment/air\\_greenhouse\\_emissions.htm](http://unstats.un.org/unsd/environment/air_greenhouse_emissions.htm). Accessed April 1, 2016.

relevant conditions” to mean exactly, natural resources are in general being depleted in such a way that not everyone is able to get an equally valuable portion of them.<sup>84</sup> It thus seems clear that some people take more than their fair share. Subsequently, it seems, equal share left-libertarianism recommends that those people restitute these excess appropriations by returning the relevant amounts back to the commons.

However, equal share left-libertarianism is open to an alternative way of making the restitution. In the words of Vallentyne and van der Vossen (2014: 14), “[i]ndividuals are morally free to use or appropriate natural resources, but those who use or appropriate more than their per capita share owe others compensation for their excess share”. In a similar vein, Steiner argues that “all owners of natural resources must pool the value of what they own in a *fund* – ultimately a *global fund* – to an equal portion of which everyone everywhere has a moral right” (2009: 6). It is not clear how this is supposed to work at large, but the common basic idea, I suppose, is that those who have already appropriated more than their equal per capita share should give their excess shares to those who have not yet appropriated their full share.

So, equal share left-libertarianism implies that excess appropriators may choose between returning the excess resources back to the commons *or* paying compensation in the relevant sense. This means that an appropriator can actually make an otherwise illegitimate appropriation legitimate by paying suitable compensation to people who have less than an equally valuable share of resources. In other words, the appropriator can thus see to it that the resources at stake become his own.

In any case, the general scarcity of natural resources in the world today suggests that it is not possible that those who have appropriated more than their fair share have returned the relevant amounts back to the commons for others to appropriate. And the fact that the world’s material wealth is spread so unequally between people indicates that the excess appropriators cannot have paid the required compensations to those who have less than an equal share. Also, there is at present no global fund making the required redistributions on their behalf. It is therefore plausible to say that equal share left-libertarianism implies that many (if not most) historical appropriations of climate-relevant resources are illegitimate.

If we combine equal share left-libertarianism with the assumption that external resources are initially owned by people in common – and that each individual thus *has a right* to an equal share of it – then these appropriations amount to taking from somebody else, which implies that they are rights-violations and thus impermissible. Another explanation as to why it is wrong to violate the equal share left-libertarian proviso (that is independent of the joint-ownership interpretation) is that the proviso identifies a compensation right that people have conditional on other people’s excess appropriations of external resources. Appropriating more than an equally valuable share *and not* paying such compensation implies violating other people’s compensation rights, and is therefore wrong.

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<sup>84</sup> Consider again IPCC (2014), Rockström et al. (2009), and World Resource Forum: [www.wrforum.org](http://www.wrforum.org). See also [www.theworldcounts.com](http://www.theworldcounts.com). Accessed on April 10, 2016.

Since equal share left-libertarianism does not tackle people's different (dis)abilities and endowments, some left-libertarians think that it is at odds with one of the essential ideas of left-libertarianism: That external resources should be used so as to safeguard equality of opportunities for well-being. This leads us to a third (and final) version of left-libertarianism.

### *Equal Opportunity Left-Libertarianism*

Equal opportunity left-libertarianism is supposed to remedy the aforementioned demerit of equal share left-libertarianism. It is advocated by, for example, Otsuka (1998, 2003) and Vallentyne (2007, 2009). Although it rejects the idea that external resources are initially owned by people in common, it requires that the value of external resources should be allocated so as to even out preexisting inequalities that stem from individuals' different internal (in)abilities which they possess through no choice or fault of their own. Vallentyne (2009: 17), for instance, argues that "those whose initial internal endowments provide less favorable effective opportunities for well-being are entitled to larger shares of natural resources". Equal opportunity left-libertarianism thus focuses on the opportunities for well-being that these resources might provide, and thus pays more attention to the specific circumstances of the individual (e.g., her needs and capabilities).

In regard to climate-relevant resources, equal opportunity left-libertarianism says that people may only take as much as they need to reach an equality-level of opportunity for well-being. As appears to be the case in the real world, however, many people (in particular the rich) take more than that. This is indicated by the existing resource inequalities, as pointed out above. So, what should the people who have appropriated too much of natural resources do?

Along the lines of equal share left-libertarianism, equal opportunity left-libertarianism is open to compensation as a way of correcting for excess appropriations, besides the option of returning these resources to the commons. Quoting Vallentyne and van der Vossen (2014: 14), equal opportunity left-libertarianism

...interprets the Lockean proviso as requiring that one leave enough for others to have an opportunity for well-being that is at least as good as the opportunity for well-being that one obtained in using or appropriating natural resources. Individuals who leave less than this are required to pay the full competitive value of their excess share to those deprived of their fair share.

When an agent has taken more external resources than is needed for her equal opportunity for well-being, she should thus spend the revenues from such excess appropriations on improving the situation of those who are worse off (in terms of opportunities), due to genes, childhood, etc.

This implies that the equal opportunity left-libertarian restrictions on private appropriations – just like those of equal share left-libertarianism – are practical, not principled. An excessive act of original appropriation is illegitimate only when the income from the non-returned resources are not spent on alleviating inequalities of

opportunities for well-being. A consequence of this is that equal opportunity left-libertarianism might in practice be more restrictive than equal share left-libertarianism, as it puts a heavier burden on those who are internally advantaged.

In the real world, however, appropriators seldom undertake equality-promoting compensations to those whose internal endowments provide less favorable opportunities. Of course, in those rare cases this is done, equal opportunity left-libertarianism does not imply that the appropriations are illegitimate. But, as it seems, only few appropriators pay compensation to the extent needed for alleviating those directly affected by their appropriations, and even fewer pay compensation to neutralize inequalities in general. As hinted above, there are vast and clearly unchosen inequalities among people around the world today. These indicate that the proviso of equal opportunity left-libertarianism is not generally met.

Perhaps it might be objected that these existing inequalities could be explained by the fact that some people take their opportunities whereas others do not. If so, people would actually have equal opportunities, and so the equal opportunity left-libertarian proviso would be met. However, this explanation corresponds badly with the empirical findings that inequalities correlate with socio-economic and geopolitical differences. Therefore, it is plausible that the proviso of equal opportunity left-libertarianism in many cases is not met.

Given the assumption that people do *not* initially own the world in common, however, it might seem as if excess appropriations of external resources are not as such *impermissible* according to equal opportunity left-libertarianism. However, when an agent appropriates more than needed for an equal opportunity for well-being, this triggers a compensation right on the part of those who have less. And by not paying this compensation, the agent violates their compensation right. We may hence infer that violating the equal opportunity left-libertarian proviso – that is, taking excess resources *and not* paying the relevant compensation – is impermissible.

Recapping this section on left-libertarianism, it is clear that different versions of the view embrace different requirements on external appropriation. In principle, neither version can ensure that climate-relevant resources are preserved to the extent required for climate stability – as long as the appropriation of these resources is conducted in harmony with the egalitarian proviso they endorse.<sup>85</sup> However, on account of the present state of the climate-relevant resources and the existing inequalities (being an indication that no relevant compensation is paid), it is safe to say that no version of left-libertarianism in practice leaves room for the massive appropriations of resources that have made human induced climate change possible in the first place.

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<sup>85</sup> Left-libertarianism would allow for a suitably designed welfare state to conduct the types of compensations and redistributions that are thus needed. I discuss this more in chapter 9.



#### 4.4. Right-Libertarianism

Right-libertarianism is presumably the best known of libertarian branches. It is principally less restrictive than both the Lockean and the left-libertarian positions. It assumes that external resources initially belong to *no one*, and denies that there are any egalitarian restrictions for legitimate appropriation.

Below, I discuss two versions of right-libertarianism. I start with the most famous version, as defended by Nozick in his book *Anarchy, State, and Utopia* (1974). I then discuss the most radical form of right-libertarianism. My conclusion is that in many real-world cases of fossil fuel extractions, deforestations and usages of the atmospheric capacity, right-libertarianism in general yields quite climate-friendly recommendations.

##### *Nozickean Right-Libertarianism*

Although Nozickean right-libertarianism does not endorse any egalitarian proviso (as endorsed by left-libertarianism), it endorses an alternative interpretation of the Lockean proviso. This Nozickean proviso (as I will henceforth call it) says that “[a] process normally giving rise to a permanent bequeathable property right in a previously unowned thing will not do so if the position of others no longer at liberty to use the thing is thereby worsened” (1974: 178). The idea is that an appropriation of a resource is illegitimate (and thus does not result in ownership) if it makes others worse off compared to how well off they would be had those resources been left for common use. Hence, Nozickean right-libertarianism (just like equal opportunity left-libertarianism) is not fundamentally concerned with resources, but rather with people’s (opportunities to) well-being.

There is a discussion in the literature regarding *exactly what* people’s situation should be compared to. Nozick himself was not entirely clear on this issue. One suggestion, put forward by Otsuka (1998) and Risse (2004), says that the comparison should be made to the original state of nature – with respect to how people would have fared in a society of hunters and gatherers. Besides the fact that this suggestion is controversial, Robert Elliot had even earlier pointed out that

...there is also the problem that an enormous proportion of present environments are products of human activity. Do we then have to run computer simulations and calculate how things would be now if human beings had not shaped the environment? And of course in a state of nature human beings are not prohibited from wreaking environmental harm, for example by lighting fires. How is this to be taken into account, if at all? (1986: 226)

As this observation indicates, the original-state-of-nature comparison is problematic – not least from an epistemological point of view. For this reason, I here disregard it. I shall instead simply assume that, with respect to each particular appropriation, it is possible to determine how people’s lives would have been had *only that* particular

appropriation not taken place. As will be clear from my arguments below, I also think that this suffices for making practical sense of the Nozickean proviso.

In any case, Nozickean right-libertarianism puts no principled limits on private appropriation. The limits it nonetheless implies are due to practical considerations concerning the opportunities of others to somehow enjoy their respective levels of well-being. In accordance with this, one single agent could in principle appropriate every natural resource in the world, as long as those other people who are thereby incapacitated to use or appropriate natural resources of their own would be left at least as good off as a result.

This could be secured without any positive action on part of the appropriator, given that the other people could take advantage of the products that result from the appropriation in question, and in that way stay no worse off than they would have been if the natural resources were left untouched. In case the appropriation would have made people worse off initially, the appropriator could correct for this by compensating them, employing them, offering them the produced goods for a subsidized price or providing them with other substitutes for a comparable contribution to their well-being – or anything alike. Nozick himself says that “[s]omeone whose appropriation [...] would violate the proviso still may appropriate provided he *compensates* the others so that their situation is not thereby worsened; unless he does *compensate* these others, his appropriation will violate the proviso [...] and will be an illegitimate one” (1974: 178, my emphases).

It is reasonable to think that some people – perhaps mainly from minorities in South America, Africa, the Middle East and India – have actually become worse off by the appropriations of climate-relevant resources that have taken place so far.<sup>86</sup> When it comes to appropriations of forests and fertile land, for instance, some people have been forced out of their traditional homelands, and as a result they have had a hard time surviving – which would not have been the case had the resources on which they depend still been in place. And many of them have apparently not been able to take any kind of advantage of the appropriations at stake.<sup>87</sup> Other things being equal, then, these appropriations of forest and land have made some people worse off than they would be had the forests and land at stake been left untouched.

Of course, other things might not be equal, as some people might have been paid proper compensation and thus been made no worse off *overall*. But certainly not all people have been properly compensated. And, to be strict, Nozickean libertarianism requires that *no one* be worse off. On account of the individualist stance of libertarianism, the fact that *some* (or even *most*) people are made much better off due to an appropriation does not counterbalance the fact that some *other* (however few) people are being made just a little bit worse off. We recall Nozick’s words from chapter 2:

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<sup>86</sup> See Lewis (2012), Attfield (2015: 191), and *Amnesty Magazine* 175 (2012: 31). See also Minority Rights Group International: [www.minorityrights.org](http://www.minorityrights.org). Accessed on April 5, 2016.

<sup>87</sup> See, for instance, Attfield (2015: 88-91) and Redclift (1984: 25-29) for empirical support of this claim.

“There is no justified sacrifice of some of us for others. [...] There are different individuals with separate lives and so no one may be sacrificed for others...” (1974: 33).

One could perhaps object here that what has made people worse off in the actual course of history are not the *appropriations* in question, but rather these people’s exceedingly regressive lifestyles. One might argue, accordingly, that they have in fact become better off in the relevant sense, since they now indeed have opportunities for well-being (via wage labor, education, health care, peace and consumer goods such as cell phones, electricity, etc.), which they did not have before. That they have not taken these opportunities is not the fault of the appropriators, one might conclude.

Such an objection, however, builds on a very implausible conception of these people’s respective abilities and circumstances. To change one’s cultural beliefs, preferences and lifestyles in order to adapt to abrupt changes stemming from other people’s appropriations might be psychologically (or in other ways practically) impossible. And, even in case this would have been possible in all relevant senses, these people would have had to give up some of their rights *involuntarily*, which would be at odds with the libertarian immunity right, as brought up in chapter 2.

What is more, the actual history of the world reveals that many people who have been affected for the worse have not had the chance to benefit from these appropriations.<sup>88</sup> Therefore, it seems as if Nozickian right-libertarianism implies that these appropriations of forests and land are illegitimate. Hence, those affected for the worse should be properly compensated. Until that is done, the people who have appropriated these resources do not own them, and hence do not have the exclusive right to use them.

When it comes to the atmospheric absorptive capacity, I see two possible interpretations of an application of Nozick’s proviso. On the one hand, we remember from the previous chapter that individuals’ emissions are in separation imperceptible and miniscule. For that reason, individuals’ separate emissions should not be seen as *worsenings* in any relevant sense, despite the fact that they do amount to infringements. Thus, our individual emitting activities – when understood as acts of appropriations of the atmospheric capacity – turn out *not* to be restricted by Nozick’s proviso, since other people would *not* have been better off had we individually abstained from appropriating any quota of the atmospheric absorptive capacity.<sup>89</sup>

On the other hand, one could argue that appropriations of the atmospheric capacity make people worse off in *indirect* respects. Since no one would be capable of surviving if she was not allowed to emit any greenhouse gases, everyone actually needs unappropriated atmospheric capacity for their survival. If there is no unappro-

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<sup>88</sup> Some stories in support of this view are brought up below.

<sup>89</sup> Some debaters make other inferences than I do. See, for instance, Neumayer (2000: 188), who claims that “an appropriation of property rights can only be regarded as just if ‘the situation of others is not worsened’, which is clearly not the case with global warming”. Presumably, Neumayer considers the lives of future people (of which I will say more in chapter 7), or he thinks of the worsening that is due to our joint emissions.

priated atmospheric capacity left, then any extra emissions (even subsistence emissions) would transgress onto somebody else's territory and hence typically amount to a rights-violation. Therefore, if an agent appropriates so much that she does not leave enough of this resource for others, her appropriation would indeed make those others worse off in this sense: Others can no longer use the resources without violating rights! This is similar with respect to the need for unappropriated forests and land, as discussed above. On that account, Nozick's proviso would deem such appropriations illegitimate.

When applied to fossil fuels, the Nozickean proviso turns out to produce quite a different verdict. This is due to the simple reason that while people tend to need untouched, non-appropriated forest, land and atmospheric capacity for their well-being and survival, they do *not* need any untouched, non-appropriated fossil fuels for their well-being or survival. People would not be better off had the fossil fuels been left in the ground, than had they turned into someone's property (other things being equal). Perhaps some people really do need fossil fuels for satisfying their basic needs, but it is implausible that the possibility to satisfy those needs would have been greater had the fuels been left in the ground.

Certainly, some people have become worse off by people's subsequent *use* (i.e., burning) of fossil fuels. But that is a separate issue. If other aspects are kept fixed, it is not the case that people become worse off in any relevant sense by other agents' mere appropriations of fossil fuels. If other things are *not* equal – say, because the oil appropriators meanwhile destroy forests, waters or lands needed by the affected people for their well-being and survival – then the appropriations undoubtedly make some people worse off. Since these worsenings amount to unjustified infringements, the appropriations at stake violate rights and are thus impermissible. This, however, is not due to the constraints implied by the Nozickean proviso *per se*, but rather due to the constraints implied by the non-aggression principle.

In connection to this, it is not obvious how it could be explained that an appropriation that violates the Nozickean proviso is wrong (impermissible). One way of doing so is to suppose that people have a right not to have their prospective well-being lowered by anyone's appropriation. Or, as proposed by Vallentyne and van der Vossen, that "[t]hose who use natural resources, or claim rights over them, owe compensation to others for any wrongful cost imposed" (2014: 12). Not paying this compensation implies violating their compensation right, and is thus wrong. Another putative explanation is that by appropriating a resource illegitimately, the agent does not gain ownership of it, and hence the agent does not have the exclusive right to it, meaning that others have the right to use it too. By still keeping it for herself, the agent excludes others from using it, and thus violates their rights to use it.<sup>90</sup> In any case, an act of appropriation that violates the Nozickean proviso is wrong.

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<sup>90</sup> C.f. Vallentyne (2007b: 176): "Everyone is initially at liberty – has a liberty-right – with respect to the use of unowned things".

### *Radical Right-Libertarianism*

Radical right-libertarianism, lastly, is the simplest and least restrictive among libertarian views. It is proposed by, for instance, Murray Rothbard (1973), Eric Mack (2010), Jan Narveson (1999, 2004, 2013) and Edward Feser (2005). It endorses the possibility of *unconditional* private appropriation of external resources – in other words, irrespective of any additional proviso whatsoever. Its only component is the non-aggression principle, and the only requirement is that the agent's appropriation must respect other people's rights.<sup>91</sup> In case an appropriation involves a rights-violation, it is impermissible. Consequently, the appropriator owes compensation as rectification to those wrongfully affected by her appropriation.

Interestingly, however, a rights-violating act of original appropriation does not, *qua* rights-violating, make the appropriation illegitimate (i.e., fail to generate moral ownership). For example, if I violate some people's rights *when* and *by* building a house – say, I run them over with my bulldozer – then this rights-violation does not make my appropriation of that house illegitimate. Since radical right-libertarianism accepts no proviso, it seems incapable of explaining how any act of original appropriation – that is, of *unowned* resources – would fail to generate ownership. It implies only that such acts are impermissible (and thus requires compensation to the victims).

Of course, radical right libertarianism can still explain how non-original appropriations – appropriations due to theft, robbery, etc. of *already owned* resources – are illegitimate. Moreover, it can explain, via the labor-mixing theory, how certain kinds of rights-violating appropriations fail to generate private ownership: acts where other people's resources are used without permission in the act of appropriation. This explanation goes as follows. An agent who wrongfully uses another person's resources in an appropriation of other resources is mixing not only his own labor with those resources, but also the labor of the owner of the resources with which he appropriates the new ones. Thus, the labor-mixing theory implies that this other person becomes an owner of those resources too. This means that the appropriation fails to give the appropriator *private* ownership to those resources. Take an example. If I build a house with a hammer that I have stolen from you, then the hammer is *yours* when I later build a house with it. Thus I also mix *your* ownership with the house, and so the house also becomes *yours*.

With this in mind, on the basis of a mere radical right-libertarian view, we can conclude that many instances of present ownership are illegitimate due to fraud and theft in their past. As even Nozick admits, historical injustices regarding private appropriations seem to be quite widespread.<sup>92</sup> Also, since many current acts of appropriations are presumably being performed with such illegitimate resources, these current appropriations will fail to make the new resources the private property of the present appropriators.

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<sup>91</sup> This implies that any requirement of radical right-libertarianism is endorsed by any other version of libertarianism.

<sup>92</sup> See Nozick (1974: 152-3).

Given what was concluded in the previous chapter – that our non-offset luxury emissions violate people’s rights – radical right-libertarianism condemns many current acts of appropriation of climate relevant resources also for another reason. Regarding fossil fuels, not least, the very procedure of appropriation amounts to extraction from the ground, and such extraction (as well as the ensuing refinement and transportation) requires energy and land use. Since that energy is often produced from fossil fuels, and since the land used for the extraction, refinement and transportation is typically cleared from carbon absorbing plants, the very appropriation is often an emitting activity.<sup>93</sup> Hence, these appropriations *as such* amount to rights-violations to the extent they involve non-offset luxury emissions.

In addition to this, the very process of extracting, refining and burning fossil fuels for energy production not only yield emissions of carbon dioxide, but also toxic particles that affect people more directly than mere carbon dioxide molecules. For example, thick smog around the world’s large cities causes the death of millions of people every year.<sup>94</sup> This is unacceptable also from a radical right-libertarian perspective.

Moreover, many real-world cases of fossil-fuel extraction – for instance in Nigeria and other African countries – involve rights-violations. In support of this claim, consider the following report by *The Africa Renewal* information program, produced by the Africa Section of the United Nations Department of Public Information:

When commercial oil exploration began in the region in 1958, many people felt it was the dawn of prosperity for the country. But decades later, pollution and other environmental damage have led to a feeling of discontent and to protests – sometimes violent ones. The quest for justice and human rights has taken the people of Niger Delta to the courts in Nigeria, and more recently to the United States and the Netherlands. [...] The Niger Delta people’s ongoing concerns were vividly captured in a 2011 report by the UN Environment Programme (UNEP), published after a two-year scientific evaluation of Ogoniland in Rivers State. The evaluation covered 69 sites and revealed serious environmental and public health concerns. The UNEP report found contamination in the soil, groundwater and vegetation. It further found that “illegal activity” around the oil pipes had also contributed to environmental devastation. (2013: 24)<sup>95</sup>

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<sup>93</sup> These issues concern extractions of natural resources in general, and not only extractions of fossil fuels.

<sup>94</sup> According to the WHO (2014), air pollution in general caused the deaths of around 7 million people worldwide only in 2012.

<sup>95</sup> Regarding the involved actors, it is added that “[o]il exploration and production in the Niger Delta region is a joint venture of multinational oil companies including Royal Dutch Shell, the United States corporations Chevron, Exxon-Mobil and Texaco, Agip (Italy), Total (France), and the state-owned Nigerian National Petroleum Corporation. Shell Nigeria alone accounts for about a fifth of Nigeria’s total oil production.” See more at <http://www.un.org/africarenewal/magazine/august-2013/slippery-justice-victims-oil-spills>. See also Attfield (2015: 92) with references.

Likewise, the *Journal of the World Development Movement* reports that the coal mining industry appears to be exploitive in relation to local indigenous people, subjecting them to the destruction of land, loss of traditional rights and forcing them to move from the areas they originally inhabited.<sup>96</sup> Altogether, these observations give us reasons – from *any* libertarian standpoint – not to extract (i.e., appropriate) fossil fuels in the ways mentioned. Of course, this does not mean that appropriations of fossil fuels are impermissible across the board, since it is in principle possible to extract fuels without violating people’s rights. But the concerns stressed above have something to say about the degree to which that is possible in practice.

A similar judgment holds for much of the world’s land and forests too.<sup>97</sup> For instance, it is questionable, given that libertarianism in general is history-sensitive, whether present deforesters are in any ways the legitimate owners of the forests they cut down. One reason is that there are numerous cases where indigenous people have been living in (and laboring) the forests *prior to* any deforesting companies showed up. These indigenous people must then – according to the libertarian theory of appropriation – have been the first legitimate owners of those forests. In case the forest-cutting companies did not receive consent from these indigenous people, but rather forced them on the run, they have violated these people’s rights. Numerous reports on this have been released by Amnesty International. In one of them, it is established that

[m]otorways, pipelines, hydroelectric dams and open-cast mines are some of the projects which governments across the Americas continue to carry out on or near Indigenous territories without obtaining their free, prior and informed consent. Indigenous peoples are denied the right to have a say on decisions that may have devastating consequences for their cultural survival.<sup>98</sup>

When it comes to the atmosphere, we saw in section 4.1. that it is questionable whether the atmospheric absorptive capacity can really be appropriated. Interestingly, however, radical right-libertarianism would hardly allow for any further acts of appropriations of the atmosphere *even if* such were possible. As mentioned in the introductory chapter, the prevailing view among climate scientists is that there is a fixed limit on the volume of greenhouse gases that the atmosphere can absorb, and that any excess emission will contribute to climatic changes that impose effects in

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<sup>96</sup> See Attfield (2015: 213) and Taylor (2013: 9).

<sup>97</sup> Attfield (2015: 90) notes that “consumption in developed countries and some of the activities of transnational companies based in those countries are harming the forests of the Third World and the related indigenous societies”. See also Attfield (2015: 124), Jackson (1990) and *New Internationalist Co-operative* (2013: 16-24).

<sup>98</sup> See <http://amnesty.org/en/library/info/AMR01/007/2012/en>. For other reports on similar cases, see <http://amnesty.org/en/library/asset/AMR45/006/2012/en/1cc0d90b-f814-4d23-a4ff-879cd681fb48/amr450062012en.pdf> and <http://www.bbc.com/news/science-environment-29254051>. Accessed on April 10, 2016.

terms of harm and damage upon people and their property.<sup>99</sup> Given that the atmospheric absorptive capacity is already met, there is no more of this resource to appropriate for anyone. Hence, any further greenhouse gas emission will not be naturally absorbed, and hence amount to infringements on other people's property. Consequently, radical right-libertarianism implies that such excess emissions (seen as acts of appropriations) are impermissible also for *that* reason.

It should be stressed that libertarianism's non-aggression principle restricts our actions in general – including our utilization of things we already own – to actions that do not wrongfully infringe on others' territories. For example, I am not allowed to stab my knife in your back, even though I have legitimately appropriated that knife. In a similar manner, I am not allowed to use any quota of the atmospheric capacity in any way that violates your rights, even though I would somehow have legitimately appropriated it. As we have already established that our excess emissions (read: "excess usages of the atmospheric absorptive capacity") violate others' rights, we are in any case not allowed to emit (read: "use it") in that way.

#### 4.5. A Libertarian Allocation of Emission Rights?

Adjacent to the many questions concerning appropriation of the atmospheric capacity is a hotly debated question in climate politics: How should the right to emit greenhouse gases be distributed?<sup>100</sup> This is an issue about what is sometimes referred to as *climate justice*. Since libertarianism can be understood as a theory of justice, it should indeed have something to say also on this subject.

The question of how to distribute emission rights could be interpreted as one about how the fixed space available for greenhouse gas emissions (considered as a common global good) should be divided fairly between people. In the climate ethics debate, several principles have been suggested in this regard. What these principles have in common is that they are considered (implicitly or explicitly) as so-called *mid-level* principles. In other words, they are supposed to be derived from some first-level (basic) normative theory, such as libertarianism. I shall in this section explore what libertarianism could say in relation to this question.

One principle that has been suggested for distributions of emission rights is actually based on libertarian considerations. It is dubbed *grandfathering*. The concept of "grandfathering" originates from nineteenth-century legislation in the U.S., whose aim was to exempt older people ("grandfathers") from newer rules.<sup>101</sup> In the climate case, the grandfathering principle, to use Bovens' words, says that "[p]ast usage

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<sup>99</sup> The idea is similar to one expressed by Railton, quoted in part above: "[b]y rendering a portion of the atmosphere toxic, [an individual] has in effect appropriated it from the commons, making it impossible for anyone else to use it without injury" (1985: 194).

<sup>100</sup> Broome (2012: 68), for instance, says that it is "the most hotly debated topic in all the politics of climate change".

<sup>101</sup> See, for example, Brandstedt (2013: 175). See also Bovens (2011) and Knight (2013) for some lengthy discussions of this principle in relation to climate change.



establishes differential claim rights to present and future usage of the atmospheric absorption capacity” (2011: 7). The crux of the idea is that since different emitters have emitted different proportions of greenhouse gases in the past, they have mixed their labor with the atmosphere to different extents, and are thus presently entitled to different quotas of the atmospheric capacity. If grandfathering is correct, then the present rich might indeed *not* even have any obligation to eliminate their luxury emissions – simply because they have emitted so much in the past that they are entitled to a proportionately larger quota of the absorptive capacity.

The gist of grandfathering might sound intuitively plausible to some. Differences in historical appropriations might have led to differences in ways of living and investing for the future, and people may have different expectations and preferences for the future, depending on the extent to which they have emitted in the past. One might think, along these lines, that we should therefore pay respect to those who are already used to higher emissions than the rest.

There are nonetheless many problems with grandfathering. First, as we saw in section 4.1., it is questionable whether the atmospheric absorption capacity could become privately owned at all. Second, and in any event, it is questionable whether the libertarian labor-mixing theory of appropriation is applicable to the atmosphere. Third, as we saw in chapter 3, we are obliged in the first place not to emit luxuriously due to the non-aggression principle. Fourth, I think we should agree with Carl Knight, one of those who have discussed grandfathering seriously, “that pumping out carbon should, intrinsically and regardless of its effects, increase entitlements would be a *reductio* of that view. Emissions just do not seem intrinsically entitlement-granting” (2013: 416).

Even if we ignore these concerns, grandfathering appears to be unfaithful to the libertarian individualist approach: Just as the duties of others do *not* spill over to you, the rights of others do *not* spill over to you. Of course, if some of the emission rights of my ancestors were *given* to me by them, then these rights would now be mine (in virtue of the transfer rights). But it is hard to see in what sense the emission rights of past Swedes, say, due to their emissions in the 19<sup>th</sup> century, have really been transferred to me now, two centuries later.<sup>102</sup> Hence it is hard to see how present individuals could justify their present emissions on the basis of their ancestors’ past emissions.

Still, one could argue that *if* one person himself had emitted enormous amounts previously within his own lifespan, then he would now possess an atmospheric segment that is sufficient to justify the massive amount that he emits at present. However, as it is clearly not the case that the presently living individuals have themselves emitted extensively in the past, they have not thereby earned emissions entitlements for the future. And even if they had done so, the argument of chapter 3 implies that

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<sup>102</sup> Perhaps something like that has occurred on rare occasions. On those rare occasions, however, it is plausible to say that the inheritors have also overtaken a correlated duty in debt to their ancestors’ past emissions. We shall return to the issue regarding historical emissions in chapter 7.

those enormous amounts of emissions of mine would most certainly have been unpermitted according to the non-aggression principle.

These comments suggest that grandfathering makes little sense from a libertarian point of view – at least in the context of climate change. So, how should libertarians then answer the question about how to distribute emission rights?

The answer to this question becomes clear once we recall the conclusion drawn in chapter 3: That only our *luxury* emissions are impermissible. Since the *subsistence* emissions, however, are permissible, and since the subsistence emissions of people are (roughly) equal, the permissible amounts of emissions are (roughly) equal per person. This, in turn, suggests that each agent initially has the right to emit (roughly) the same amount of greenhouse gases as everyone else. This answer overlaps with the answer given by a principle called the *Equal per Capita View*.<sup>103</sup>

There are at least two practical reasons why this view would also find support in libertarian politics, based on a voluntary contract between individuals. First, if people would prefer unequal distributions in favor of their friends and families, and so consent to any emissions of theirs but dissent to those of others, this would be evened out by the fact that different people favor different friends and families. Second, an *unequal* distribution of emission rights yields the difficult practical task of determining the different rights of different individuals, which is a problem not faced by an equal allocation.

So, *if* libertarianism has anything to say on the distributive question regarding emission rights, the observations made in this section suggest that it is in line with the Equal per Capita View. At the very least, grandfathering does not appear be a reasonable alternative.

## 4.6. Concluding the Chapter

In this chapter, I have discerned some different versions of libertarianism with respect to their restrictions regarding external appropriations. If my arguments are correct, these different versions of libertarianism yield quite overlapping restrictions against our appropriations of climate-relevant resources.

Besides Lockean libertarianism – saying that we may appropriate as long as we leave enough and as good of natural resources behind to others in common – right-libertarian views are generally less restrictive than left-libertarian views. As regards left-libertarianism, the joint-ownership version is the most restrictive one, and gives a unison verdict in all cases: Given the practical problems of obtaining consent from

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<sup>103</sup> This principle is defended by, for instance, Broome (2012: 68-72), Garvey (2008: 66-83), Jamieson (2005: 231), Attfield (2003: 179-80), Singer (2010) and Neumeyer (2000). For an extensive critique, see Caney (2012). Note that this principle bears some similarities with equal share left-libertarianism, discussed in section 4.3. However, the argument given here for the equal per capita view on emission rights is not biased in favor of any specific version of libertarianism – it is simply based on people's presumed dissents and consents regarding emissions.

everyone else on the planet, we are not permitted to appropriate natural resources. Nonconsensual versions of left-libertarianism are more allowing, yet still restrictive. Equal share left-libertarianism is so because the world's resources are being depleted in such a way that not everyone is able to get an equally valuable portion of resources. This indicates that many of those who have appropriated resources have taken too much of them. Therefore, they should either return them, redistribute them equally, or compensate those who have appropriated less than their fair share. Equal opportunity left-libertarianism might be less restrictive than this in principle, but turns out to be very demanding in practice. It implies a conditional positive duty to spend the revenues from external appropriations so as to even out unchosen inequalities of opportunities. Anyone's appropriation is legitimate, and also permissible, only to the extent she fulfills this duty.

Right-libertarian views do not require that individuals use the revenues earned from their respective appropriations to alleviate inequalities. Nozickean right-libertarianism nonetheless yields a quite restrictive verdict, since our appropriations tend to have made some people worse off than they would have been had the appropriations not taken place. However, it is open to compensation, just like equal share and equal opportunity left-libertarianism. Regarding appropriations of the atmosphere, however, the Nozickean proviso yields an ambiguous result. Since individuals' emitting activities (even when regarded as acts of appropriations of the atmospheric capacity) do not *per se* make people's lives worse off, individuals' appropriations of the atmospheric capacity are not (as such) restricted. However, since the atmospheric absorptive capacity is already met, further emissions (seen as appropriations of the atmospheric capacity) will in effect infringe on other's territories and be impermissible for that reason.

In general, many real-world cases of fossil fuel extraction, land use, deforestation and usage of the atmospheric capacity turn out to be very problematic as rights-violations are involved. In these cases, even radical right-libertarianism – endorsing no additional proviso whatsoever – judges the appropriations impermissible. Given that libertarianism is history-sensitive, it is thus questionable, more generally speaking, whether the present people are the legitimate owners of their possessions. If they are not, the further resources they now appropriate on the basis of these possessions are illegitimate as well. We shall return to this in chapter 7.

In closing this chapter, it is safe to say that the problem with our emitting activities – seen from the perspective of libertarianism – is not only that these activities cross people's boundaries without consent (as we saw in the previous chapter), but also that they involve the use of resources that are not legitimately ours. This also means that others do not act wrongly if they take these resources away from us, or prevent us from using them. This is of relevance for the possibility of governmental climate action, to be examined in chapter 9.

## 5. Risks Related to Climate Change

So far in this essay, we have been concerned with *actual* infringements (i.e., unconsented boundary-crossings) of our climate-relevant activities, and so we have neglected the many *risks* (i.e., probable infringements) associated with these activities. This is plausible since libertarianism, as we saw in chapter 2, is usually cast in actualist terms. Thus it implies that only actual infringements, and not mere probable ones, may count as rights-violations. Still, it is interesting for several reasons to take a look at libertarianism's implications for the impositions of pure risks.<sup>104</sup>

First, when relating the scientific background of climate change in chapter 1, I maintained that the storms, floods, draughts (and in effect any potentially catastrophic consequences) of climate change are in part due to thresholds in the climatic system. Because of that, there is a non-zero probability that our individual emissions could pass these thresholds and thus give rise to quite devastating outcomes.<sup>105</sup> This holds true regardless of the actual infringements directly caused by our individual emissions (as argued in chapter 3).

Second, our appropriations of climate-relevant resources, such as oil drilling and coal extraction, are connected to risks of oil spills and other damages that – were they to occur – amount to infringements. When Deepwater Horizon exploded in the Mexican Gulf in 2010, for instance, it immediately claimed eleven human lives, and has thenceforth had a devastating impact on marine wildlife habitats, fishing and tourism industries and human health.<sup>106</sup> This exemplifies that even appropriations of climate-relevant resources raise the probability of rights-violations occurring.

To be sure, if the probability of a disastrous outcome of Deepwater Horizon would have been exceptionally high, say 99%, then many people would believe that putting Deepwater Horizon into action would be wrong. But what can *libertarianism* say about this? In the words of Steven Wall, a contemporary libertarian, “[o]ur self-ownership rights can be violated by others if they engage in activity that imposes a sufficiently high level of risk of harm to us” (2009: 408). But *how* can this be explicated? Could it really be wrong, from a libertarian point of view, not only to expose others to actual infringements but also to mere risks?

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<sup>104</sup> With this terminology, I follow Railton (1985: 193): “Let us call cases [...] where there is no actual physical change produced in a person or his property by an activity that nonetheless raises the probability he will suffer wrongful harm, the imposition of pure risk”.

<sup>105</sup> See Kagan (2011).

<sup>106</sup> See *Encyclopædia Britannica Online*, s. v. “Deepwater Horizon oil spill of 2010”: <http://global.britannica.com/event/Deepwater-Horizon-oil-spill-of-2010>. Accessed on March 31, 2016.

In this chapter, I aim to answer this question. I do so by exploring the explanations that are potentially available from a libertarian position. I argue that libertarianism judges mere risk-exposures impermissible insofar as the risks (i) restrict people's negative liberty or psychologically interfere with people, and (ii) these people do not consent to such interference. I also argue that risks can figure in the motivation behind people's lack of consent for the actions that produce them, as long as these actions in other respects cross their boundaries.

## 5.1. Libertarian Ways to Account for Risk-Exposures

Consider the following example by David Friedman:

Suppose I decide to play Russian roulette, with one small innovation; after putting one cartridge in my revolver and spinning the cylinder, I point it at your head instead of at mine before pulling the trigger. Most people, libertarian or otherwise, would agree that you have every right to knock the gun out of my hand before I pull the trigger. [...] But what if the revolver has not six chambers but a thousand or a million? (2014: § 41)

What libertarians want to say, I surmise, is that there are differences between cases of *likely* infringements and cases of *unlikely* infringements. Moreover, I guess, they want to say that *some* exposures of risks to others are wrong, whereas not *all* of them are wrong. Friedman himself argues that libertarianism cannot account for this, as he thinks it forbids *all* risky activities. He says:

If doing something to someone (in this case shooting him) is coercive, then so is an action that has some probability of doing that something to him. [...] The right not to be coerced, stated as an absolute moral principle, should still apply. If libertarianism simply consists of working out the implications of that right, then it seems to imply that I may never do anything which results in some probability of injuring another person without his consent. (2014: §41)

Friedman takes this to be a problem for libertarianism, since we are exposing others to risks of infringements all the time. And, certainly, we do not want to count just any risk-exposure as morally relevant.

However, the main premise in Friedman's argument is flawed: it does *not* follow from the fact that doing something is coercive (wrong), that an action that has some probability of doing that something is also coercive (wrong). This flaw stems from Friedman's assumption that the libertarian implications for miniscule effects (as I dealt with in chapter 3) are the same as the libertarian implications for "effects that are small not in size but in probability" (2014: §41). Indeed, according to the classical actualist libertarian view, every small infringement *is* an infringement, whereas any merely probable infringement is not.

The task of this section is to examine whether there might be other ways for libertarianism to explain how some (but not all) risk-exposures are impermissible.

#### *A Move to Probabilistic Libertarianism*

One way for libertarians to account for the wrongness of mere risk-exposures would be to revise the classical non-aggression principle to a *probabilistic* principle. According to such a principle, an action would be permissible depending, roughly, on whether it would be probable to violate someone's rights. Since the degree to which an action is risky according to libertarianism is determined by the degree to which it is probable to violate someone's rights, the probabilistic perspective would be capable of deeming at least some risky actions as being wrong. Of course, it must still be précised what determines probability in this sense. One way of doing so would be to accept a *subjective* view on probabilities, referring to what can be expected from the perspective of the agent. According to a subjective probabilistic libertarian view, then, an action would be permissible depending on whether it is somehow expected by the agent that it will not violate anyone's rights.

Whether or not the subjective libertarian perspective is plausible depends of course on the exact meaning of "expected". For instance, it cannot in this context mean "foreseeable", since no mere risk can be foreseeable in any strict sense. There is a large general debate on that issue, which I cannot enter here.<sup>107</sup> However, the move to a probabilistic libertarian principle is obviously at odds with the classical actualist version of the view, as spelled out in chapter 2, with which I am here concerned.<sup>108</sup> In what follows, I therefore explore whether actualist versions of libertarianism could deal with mere risks by exploiting its own theoretical resources.

#### *Risk-Exposures Might Restrict Other People's Negative Liberty*

One potential route in this regard is suggested by Peter Railton (1985). He argues that it is wrong to expose others to risks, for the reason that "such acts fail to show adequate respect for the individual as an autonomous being" (1985: 206). As one of Railton's examples goes, "[m]y freedom to swing my arm does not stop at your nose, but at some point where I begin to show inadequate respect for you by putting your nose at too much risk" (1985: 202). If I go beyond that point, I disrespect you as an autonomous individual person *even though* no actual infringement takes place. It is not clear exactly how this could be accounted for within a pure libertarian framework – according to which there is no positive duty to show respect over and above what the non-aggression principle requires. Also, there is a problem concerning what to count as "inadequate" respect.

Maybe Railton's intuition could be captured by the argument that risk-exposures sometimes restrict people's negative liberty in a sense that is unpermitted according

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<sup>107</sup> See, for instance, Zimmermann (2008) and Bykvist (2011).

<sup>108</sup> As Nozick (1974: 71) points out, the actualist view does not imply that we should *blame* (or *punish*) accidental infringements. Whether or not we should do that is a separate issue that I shall not deal with here.

to the non-aggression principle. Although a merely risky act does not force any victim to perform any action, it might hinder her from performing some actions that she would otherwise (and legitimately) have been able to perform.<sup>109</sup> If I am exposed to certain risks, then my effective control over myself and my property – in terms of liberty to use these items in any non-aggressive way – can be diminished compared to how things would be were I not exposed to such risks. For example, if you expose me to a risk by emitting poisonous gas just outside of my window in such a way that – were I to open it – I would suffer from oxygen deprivation, then it seems plausible to say that – whether or not I actually open my window – you restrict my liberty to open the window without being hit by your poisonous gas. In that way, perhaps, mere risk-exposures could be judged impermissible according to libertarianism.

We saw in chapter 3 that liberty-restriction in this sense is not necessary for boundary-crossing. But this does not mean that it cannot be *sufficient* for boundary-crossing. However, this way of explaining the wrongness of risk-exposures can at most account for *some* kinds of risk-exposures. For instance, it cannot account for the type of risks that are at play in cases such as Deepwater Horizon, discussed above. The reason is that before the explosion took place, it appeared not to have restricted anyone's liberty in any relevant sense.

*Might Risk-Exposures Subject Others to Fear in a Way that Counts as Infringement?*

Another somewhat related proposal, which could perhaps explain the wrongness of the latter type of risk-exposures from a libertarian view, can be found in Edward Feser (2005), building on an idea of Eric Mack (1995). The core idea is that of a so-called *self-ownership proviso* (SOP). This proviso adds to the assumption that people are self-owners – with full property rights to their body parts, powers, talents, energies, etc. – that “...persons have rights over their world-interactive powers”.<sup>110</sup> In Feser's framing, SOP entails that “[w]e also have a right [...] not to have our self-owned powers nullified – we have the right, that is, to act within the extra-personal world and thus to acquire rights to extra-personal objects that the use of our self-owned powers requires” (2005: 77).

Although neither Mack nor Feser develop SOP for the sake of dealing with risks, Feser notes that

[i]t arguably affords a way of explaining why the mere *threat* or *risk* of harm to oneself counts as a rights violation no less than the actual infliction of the harm does. [...] If the fear imposed by a threat or risk keeps you from using your self-owned powers, then that would seem to violate the SOP, and thus itself count as an injustice. (2005: 76, fn. 38)

I think it is correct to say that when one imposes a risk in the form of a threat or a fear on another person, then one restricts that person's negative liberty in the sense

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<sup>109</sup> See Oberdiek (2008) for an argument along these lines. See also Vallentyne (2011a).

<sup>110</sup> Mack (1995: 187).

described above. I also think, in line with Feser, that the *fear* imposed by the risk could be regarded as a *psychological transgression* on that person, and that such a transgression amounts to a boundary-crossing. If the “victim” does not consent to that crossing, then it amounts to an infringement. If it is also unjustified, then it in turn amounts to a rights-violation, making it impermissible.

Exactly what counts as a psychological transgression is not something I can answer here. One argument as to why it nevertheless should be taken as a relevant form of boundary-crossing is given in a classical paper by Judith Jarvis Thomson (1975). She argues that “there is nothing special about physical hurts and harms; mental hurts and harms are hurts and harms too. Indeed, they may be more grave and long-lasting than the physical ones, and it is hard to see why we should be thought to have rights against the one and not against the other” (1975: 310). In a similar vein, Railton argues:

If it is a harm to step on someone’s toes, should it not be a harm to cause the often more severe and lasting discomfort that fear of harm may cause? Fear may be as debilitating as physical injury and may even bring about a number of physical disorders. Why draw boundary lines so as to include trivial physical damage and exclude grave mental damage? Is this any more than a fetishism of the tangible? (1985: 204)

As we know, libertarians do not think that *hurts* and *harms* (mental or physical) are sufficient for rights-violations. But, still, they could agree that mental hurts and harms amount to boundary-crossings. Or, how could one person’s actions cause mental hurts or harms to another person if it did not in any sense cross that person’s boundary? A person can of course be mentally scared without there being any action at all crossing his boundary – he might hallucinate or simply misapprehend reality. In such cases, the person merely *feels* threatened by the other person’s action without actually being threatened by that action. And, in those cases, the mental hurts and harms do not instantiate any boundary-crossings. But whenever a person’s action does impose fear on another person, this action plausibly crosses his boundary. Determining whether a person’s felt or experienced fear really is due to a boundary-crossing action performed by someone else is certainly a very difficult task. This does not, however, undermine the explanation that psychological transgressions in the form of fear may sometimes count as boundary-crossings.

Interestingly, this implies that a great number of risky actions cross people’s boundaries. What determines whether these actions amount to infringements – just as was argued in chapter 2 – is whether the affected people consent to these crossings (more on this below). However, mere risk-exposures that do *not* have any psychological effects on others (e.g., they go wholly unobserved by the “victim”) cannot on *this* ground count as boundary-crossings, nor infringements.

The story told so far in this chapter suggests that psychological transgression *and* liberty-restriction may play parallel roles in a libertarian explanation as to how risk-exposures could be deemed wrong: they each appear to be sufficient for boundary-



crossing. Taken together, they say that a risky action is a boundary-crossing if it transgresses someone's psychological territory *or* restricts someone's negative liberty. If these crossings occur without people's consent, then they amount to infringements. Note, however, that a risky action is thus impermissible depending on whether it *actually* trespasses onto someone else's territory (in any of these senses) without permission.

### *The Indirect Moral Relevance of Risks*

In connection to the previous lines of reasoning, the mere risks with our actions may also play an *indirect* role with respect to the permissibility of those actions. This is partly due to the fact that many risk-exposing activities have boundary-crossing effects *independently* of their risk-exposures (e.g., emissions, oil-drilling and deforestation, as explained in chapter 4). It is also partly due to the relevance of consent, since the people affected by these actions may validly object to them *because of* their mere risk-exposures.

To illustrate this, we should recall that the *effects* of an action are not what individuals may consent or dissent to, but rather the action itself causing these effects. Consider the following example for clarification. Your neighbor performs an act A, which causes certain effects  $E_1$ - $E_n$ . As it happens,  $E_1$  is the only effect of A that crosses your boundary. However, it does not affect you noticeably, for which reason you do not dissent to A with respect to  $E_1$ . Another effect,  $E_n$ , does not cross your boundary, but it nonetheless exposes you to a noticeable risk. Let us assume that it is even the *only* effect, stemming from A, bothering you. Therefore, you dissent to A *because of*  $E_n$ , even though  $E_n$  does not cross your boundary. Still, since  $E_1$  does cross your boundary, you are entitled to dissent to A on the basis of *that*. And, subsequently, your neighbor's performance of A is an infringement.

Of course, if none of the effects of a risky action really crosses the boundary of any person, then *no one's* dissent to that action is valid. In turn, then, libertarianism does not judge such an action wrong, despite its risks. Moreover, in case the effects of a risky action cross the boundaries only of people who consent to those actions, then those risky actions are permissible on libertarianism. Even if some people's boundaries are actually crossed, these do not amount to wrongdoings if those who object to the actions do not themselves have their boundaries crossed by those actions. However, from the previous discussions (in chapter 3 and 4, respectively) it could be inferred that since many of our risky acts involve emissions that affect people without their consent, these acts are *thus* impermissible.

As it seems, however, most of us consent to many kinds of risky activities in our everyday lives. The reason why I personally consent to a lot of the things you do (e.g., driving your car, building your house, producing and using various commodities, etc.), even though these activities of yours expose me to a risk, is basically twofold: (i) I take the expected benefit from doing so to be positive (and the probability of being harmed by these actions of yours to be sufficiently low), and (ii) I expect to get the permission to do these things myself, on account of the correspondingly implicit consent from you. This means that these risk-exposures do not violate

my rights, and are therefore permissible. This also relates back to the argument concerning psychological transgressions.

### *Nozick's "Cross and Compensate"*

What should we do in view of those risky activities deemed impermissible by libertarianism? When talking about risks in connection to pollution, Nozick (1974: 79) is arguably right when he says that "it would exclude too much to forbid *all* polluting activities". With regard to which polluting activities libertarianism would allow, and which it would forbid, he only speculates. He says, in a fairly non-libertarian way, that "presumably, [society] should permit those polluting activities whose benefits are greater than their costs" (1974: 79). But, to be sure, this line of reasoning is unavailable from a strict libertarian point of view.

However, Nozick also says that "[i]f a polluting activity is to be allowed to continue on the ground that its benefits outweigh its costs (including its polluting costs), then those who benefit actually should compensate those upon whom the pollution costs are initially thrown" (1974: 80). Moreover, he observes that we could either compensate "those persons whose boundaries actually are crossed", or compensate "all those persons who undergo a *risk* of boundary crossing" (1974: 75-6).

The general idea is that we should allow for a policy of "cross and compensate". According to such policy, risk-exposures are permitted as long as all relevant victims are compensated afterwards. As shown in chapter 3, however, compensation in connection to rights-violation works only as a *secondary* alternative. This means that we may not cross people's boundaries without their consent just because we shall compensate them afterwards. At any rate, we also saw that it is practically very difficult to compensate people for the infringements that are due to our emitting activities. It will presumably be even harder to compensate those who undergo mere risks of those activities. Nozick (1974: 76-7) seems to agree to this (although he does not think that compensation to actual infringement is as problematic as I have argued). Still, of course, in those cases it is possible to pay suitable compensation to those affected by one's infringing risk-exposures, then that might work as rectification for those infringements.

## 5.2. Concluding the Chapter

In this chapter I argued that liberty-restrictions and psychological transgressions may play parallel roles in a libertarian explanation as to how mere risk-exposures could be deemed wrong: They each appear to be sufficient for boundary-crossing. Libertarianism can thus judge mere risk-exposures to be impermissible insofar as they (i) either restrict people's negative liberty in the sense that they hinder them from performing actions that they would otherwise (and legitimately) have been able to perform, or psychologically interfere with people, and (ii) these people do not consent to such interference. Exactly what should count as a psychological interference and liberty-restriction is debatable, and nothing I can answer here. Moreover,

risks may also figure in the motivation behind people's lack of consent for the actions that produce them, as long as the actions cross these people's boundaries in any other ways.

These results are interesting. For one thing, they imply that even if our climate-relevant activities (i.e., our emissions of greenhouse gases and appropriations of natural resources) would not be wrong for the reasons brought up in chapter 3 and 4, at least some of them would be wrong for reasons concerning the risks they produce. However, if a risky activity neither interferes psychologically with people (e.g., they do not experience the risk at all) nor restricts their negative liberty, then it does not amount to any infringement and is hence no wrongdoing. Then, it is only if the risk materializes that a wrongdoing occurs. Libertarianism's recommendation in these cases is that the agent should take out preventive insurances so as to be capable of making the required compensations if (or when) rights-violations nevertheless occur.

At any rate, risk-exposures can function as a rationale for self-defensive actions. To that we shall now turn.

## 6. Self-Defense Regarding Climate Change

In chapter 2, we saw that libertarianism gives individuals a so-called *enforcement right* (i.e., the right to use force). The enforcement right includes the right to self-defense: a right of prior restraint if someone is about to trespass onto the agent's moral territory without her consent. Questions related to self-defense arise in relation to several of the previous discussions. First, the right to self-defense permits people to defend their property against the effects of climate change. For instance, people may build sea walls around their homes against rising sea levels, and they may install air-conditioners against increasing temperatures. Second, and more interestingly, the right to self-defense permits people to defend their property against the infringements of other people's actions. In fact, self-defensive actions may be undertaken against wrongful actions of any of the types we have discussed in the foregoing: (i) emitting activities (explained in chapter 3); (ii) appropriations of natural resources (explained in chapter 4); and (iii) mere risk-exposures (explained in chapter 5). In this chapter, I explore the libertarian right to self-defense against these activities.

It is important to mention at the outset that the libertarian right to self-defense is *pre-emptive*: It permits individuals to act defensively in any case where not doing so would lead to a violation of their rights. Consequently, libertarianism allows actions of self-defense to be performed even *prior* to any rights-violation – in other words, against actions of others that have not yet amounted to any infringement. As Peter Railton says, “[t]he motivation for such a principle is clear enough: were I to have to wait until actual injury has occurred, I would be defenseless against many serious harms” (1985: 203). Furthermore, neither temporal nor spatial distances restrict the permissibility of defensive actions. In other words, the distance of the threat in terms of space or time makes no difference in relation to the acts of the defender. Of course, such distances might come with epistemic obstacles – they might make it harder for the defender to *know* when or if she is morally allowed to violently repel the threat. But that is a different matter. The question here is what the defender may do *given* that the threat is real and would – counterfactual to her defense – violate her rights.

The most pressing queries regarding the libertarian right to self-defense concern the *extent* of that right. Against *whom* are we allowed to act in self-defense? And *what*, or *how much*, are we allowed to do in terms of self-defense? While all libertarians agree that we have a right to act defensively against *aggressors*, they disagree

regarding the magnitude of such a defense. They also tend to disagree regarding the scope of permissible defensive action against *innocents*. For that reason, I shall here discuss the right to self-defense against aggressors and innocents separately.

Before I start, I want to mention that there is a lot of talk about people's "right to life" and "right not to be killed" in the literature I refer to. However, this talk is a bit sloppy. First, libertarianism does not *de dicto* provide any right not to be killed. Second, the right not to be killed that libertarianism nevertheless does provide *de re* is neither general nor unconditional. For instance, it does not provide any right not to be killed by non-agential causes, such as heart diseases or natural events. Indeed, libertarianism gives people the right only against being killed unjustifiably by other people whose killing crosses their boundaries without permission. For the sake of convenience, however, I pursue my discussion based on the assumption that the relevant killings in question are of this kind.

## 6.1. Acting in Self-Defense against Aggressors

As just mentioned, libertarianism allows us to act in terms of self-defense against any agent whose aggression violates (or threatens to violate) our rights. Thus it also allows us to act against people who perform climate-relevant activities of the types (i)-(iii) stated above. There are, however, some issues with regard to *what* we are allowed to do in terms of self-defense against these people. In the self-defense literature, this is considered a twofold question: one concerning *proportionality*, the other concerning *necessity*.

### *A Libertarian Proportionality Condition?*

Let us start with the question of proportionality. In the case of climate change, this question may be put accordingly: If your climate-relevant activities threaten to violate my rights, then what may I do against you in order to avoid such rights-violations? Am I allowed to kill you in order to stop you from emitting greenhouse gases that interfere with my property?

It is not obvious how libertarians would answer these questions.<sup>111</sup> A *strict* libertarian view regarding self-defense would deny any proportionality constraint whatsoever, and thus allow defenders to do anything that keeps their borders free from aggressions. Hence, aggressors will simply have to endure any defensive means against them, as they have no one else to blame than themselves. A *moderate* libertarian view regarding self-defense, however, would accept a proportionality condition, and thus deny that defenders are permitted to do just about anything against their aggressors.

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<sup>111</sup> Block, for instance, says that "[s]trictly speaking, libertarian [*sic*] cannot answer the question of whether or not it would be appropriate for [A] to commit assault on [B] to save his own life. It can respond to the issue of what should happen if he does. And the answer is that he would have to pay the ordinary penalty, whatever it is, for committing assault and battery" (2011a: 628, fn. 3).

The tricky thing, though, is to account for this proportionality condition from a libertarian perspective. One way of doing so is offered by Vallentyne and van der Vossen (2014). According to their take, individuals do not *fully* have all of their rights (i.e., control, compensation, enforcement, transfer and immunity). Rather, they say:

If one agent has the strong immunity to loss of rights, then other agents cannot have the strong enforcement rights (which require the offending agent to have lost some of her rights of self-ownership). Thus, full (universalizable) self-ownership can include no enforcement rights (but a full immunity to loss), or full enforcement rights (but no immunity to loss for rights violations), or anything in between. (2014: 15)<sup>112</sup>

This explication suggests that the strength of one individual's enforcement right is dependent on the strength of the immunity rights of others, and vice versa. One way of looking at the interdependency between enforcement rights and immunity rights is in terms of negative proportionality. Accordingly, the enforcement right of an individual  $I_1$ , with respect to the aggressive acts of another individual  $I_2$ , is negatively proportional to the extent the aggressive acts of  $I_2$  affect  $I_1$ . This means that by threatening another person, an agent loses her immunity right to a corresponding amount of defensive infringement, but still retains her right against infringement that exceeds this amount.

However, this is problematic. First of all, there is the issue of how to measure and compare "extents of rights-violations", "amounts of infringement" or "degrees of effects" of aggressive acts. A harm-based proportionality view, for instance, seems incompatible with the harm independent understanding of the non-aggression principle, as explicated in chapter 2. And a harm independent proportionality view also requires some interpersonal comparisons that conflict with the libertarian non-welfarist individualist perspective. As pointed out by Eric Mack (1996b: 110), "[e]ndangered individuals need not weigh the loss that threatens them against the loss to those subject to their permissible defensive activity. They may, instead, stand on their right not to submit to a violation of their rights".

Perhaps the proportionality view could instead be understood with reference to the extent to which the aggressor is *excused* – say, due to physical compulsion, provocation, intoxication, insanity, or reasonable ignorance – for his behavior. To the extent the aggressor is thus excused, he belongs to the same category as innocents (to be dealt with in the next section): He would have lost at most *some* (but not

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<sup>112</sup> This understanding seems also to be in line with one suggested by Rodin, in his chapter "Grounding Self-Defense in Rights". He says that "[t]he absence of the aggressor's right to life and the defender's right to kill are thus internally connected by the logic of normative relations" (2002: 75).

ally) of his immunity rights, and so the defender would be permitted to act defensively against him only to an extent corresponding to this loss.<sup>113</sup>

This understanding is implausible as well, especially in a pure libertarian context. First, it appears to be too narrow, since it puts no restrictions on defensive action against aggressors who lack excuses, but are about to commit only very minor aggressions. Second, the reference to reasonable ignorance is inconsistent with the classical actualist libertarian view, which is the one that concerns us here. Reasonable ignorance might be relevant to the question of blameworthiness, but not to the question of wrongdoing. Likewise, it should not be relevant to the question of people's liability to other people's defensive acts. Third, and more important in the climate context, the abovementioned factors that are supposed to motivate the proportionality view are not really in play: The vast majority of wrongful climate-relevant activities are not conducted under the influence of physical compulsion, provocation, intoxication, insanity or anything alike.

These arguments suggest that the proportionality view – at least in connection to the problem of aggressors – is inconsistent with libertarianism. In a draft paper, Vallentyne says in this vein that “[a] radical feature of the theory is that there are no proportionality restrictions against a rights-violator who is fully culpable and agent-responsible for intrusion-harm”.<sup>114</sup> Hence, a strict libertarian view regarding self-defense appears to be more reasonable, after all, as it denies any proportionality condition.

As indicated earlier, however, the strict (non-proportional) view has implications of its own. For instance, it allows us to even kill people in self-defense against their very minor aggressions. This might sound plausible in those cases we cannot defend ourselves without killing them, but what if we could avoid an aggressor's threat by performing a defensive act that is less harmful to the aggressor? Does libertarianism say that in those cases, we are only allowed to perform such a less harmful act?

#### *A Libertarian Necessity Condition?*

The previous questions lead us to the issue whether libertarians should accept a condition of *necessity* (as it is commonly, however misleadingly, called in the self-defense literature). According to this condition, a defender may not do more to an aggressor than is *needed* in order to avoid his aggression. If there are two actions available to me that are both sufficient for avoiding your aggression – for example, breaking only one of your arms or breaking both of your arms – then the necessity condition requires that I perform the least violent action – i.e., breaking only one of your arms.

Judith Jarvis Thomson has defended this condition from a rights-based position by giving an example in which a villainous aggressor is trying to kill you by hitting

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<sup>113</sup> C.f. Vallentyne (2011b and forthcoming).

<sup>114</sup> See his “Self-Defense against Rights-Intrusion” (forthcoming). The theory of self-defense he develops in this paper is not explicitly based on libertarianism. In personal correspondence, however, Vallentyne says that he finds this theory to be the best for libertarianism.

you with a truck. As her intuition goes, “if you really could stop him by merely threatening to blow the truck, then that is what you ought to do. It would be wrong to kill even a villainous aggressor when you do not need to do so” (1991: 284). Nozick appears to agree to this idea, as he says that “...there will be some specification of a rule of necessity which requires one not to use more in self-defense than is necessary to repel the attack” (1974: 63).

I, too, think that a necessity condition is intuitively plausible, but I am not certain how it could be defended within a libertarian framework. First and foremost, the problem that we saw earlier in connection to the proportionality condition now reemerges: How should the effects of the available defensive actions be assessed and compared? Again, it could not plausibly be determined by the degree of harm they will cause the aggressor. And, even if it could, it is hard to see – especially from a pure libertarian perspective – why the defender would have to care for the aggressor in this sense. It would also be implausible, for sure, to think that it could be determined through the evaluation of the defender.

For these reasons, I think that the libertarian right to self-defense against aggressors after all permits individuals to act according to the following unrestricting device: *Hey! Your climate-relevant activities threaten to violate my rights, and some of them actually violate these rights as we speak. Either you yourself stop performing these activities, or I will do anything to make you stop! So, do you prefer the easy way or the hard way?* Suffice it to say that if the necessity condition could somehow be defended within libertarianism, then this motto would have to be revised so as to permit individuals to do only whatever is *needed* (on the relevant account) to avoid the aggressions. For the climate case, however, the debate as to whether the necessity condition fits in with libertarianism does not need to be solved. Given the nature of our climate-relevant activities, people are nevertheless allowed to undertake quite substantive measures in order to protect their personal boundaries.

In any event, there is a restriction to the motto: individuals may not perform any defensive actions that violate the rights of innocents. Exactly what this implies is the subject for the next section.

## 6.2. Acting in Self-Defense against Innocents

Usually, our defensive actions not only affect aggressors but also people who are *innocent* to the rights-violations we aim to avoid. Libertarianism has some difficulties answering the question as to what we may permissibly do, in terms of self-defense, to these innocents. My aim in this section is to argue for what I believe is the most reasonable view for libertarians on this matter.

There are at least two categories of innocent persons that could be distinguished. In the literature, these are usually labeled “innocent bystanders” (i.e., persons who are not involved in the aggression; for instance, because they have no influence on the event in question), and “innocent threats” (i.e., persons who are only non-



autonomously involved in the aggression via the actions of others; for instance, because they are being pushed by someone).<sup>115</sup> Let us start with the innocent *threats*.

### *Innocent Threats*

According to the strict libertarian view regarding self-defense, individuals are permitted to act defensively against innocent threats – just as they are against aggressors. They are free to keep their borders (surrounding their legitimate moral territory) free from any trespassing of others, *even if* doing so would result in the death of the innocent threats. This is in line with Mack (1996b: 110), who argues that “[i]f one has a right to one’s life, one cannot be obligated to allow another to be a causal agent in depriving one that right. When necessary, such a deprivation may be resisted by means of harmful force”. He says, moreover, that “...one’s right not to submit to a deprivation of life is a right one holds against *everyone*” (ibid., my emphasis).<sup>116</sup>

This is also how Torbjörn Tännsjö has recently interpreted libertarianism’s implications for self-defense:

You are free to protect your boundaries against natural events, attacks from animals – and even against an innocent person who has been violently thrown towards you. If necessary, you are allowed to pulverise such a person. I believe this is the most charitable interpretation of the moral rights theory [i.e. libertarianism]. After all, all this seems to follow if we want to be true to the rationale behind the [...] theory: the idea of self-ownership. (2015: 36)

This strict view should appear attractive to libertarians. Since an innocent threat in fact poses a threat (albeit innocently) to his victim, the victim should have the right to defend himself against the innocent threat, and so in virtue of his self-ownership.

One might think that there is a complication here, as the strict view seems incompatible with the self-ownership right of the innocent threat. Does not the innocent threat, in virtue of his self-ownership, also have the right not to be interfered with by the acts of the defender? If so, how could the defender be permitted to pulverise him in terms of self-defense? Perhaps this could be explained by accepting that the threat would somehow *lose* her rights in virtue of her threatening acts. This is along the lines of Vallentyne and van der Vossen, who say that “[a] plausible thesis of self-ownership must allow that some rights (e.g., against imprisonment) may be *lost* if one violates the rights of others” (2014: 5, my emphasis).

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<sup>115</sup> Mack (1996b: 105) defines “innocent threats” as “those whose action or behavior threatens to infringe upon someone’s rights, but who are not themselves responsible for their threatening action or behavior”, and “innocent bystanders” as “those who themselves pose no threat to the party under attack”. Otsuka (1994: 84) defines “innocent bystander” as “somebody who does not herself endanger your life and who is not responsible for whatever it is that endangers your life”.

<sup>116</sup> Mack here talks about individuals’ right to life. But since there is no libertarian right to life in this literal sense, I think this right should be seen as an instantiation of the general libertarian right that others not cross one’s boundaries without permission.

Irrespective of whether it is at all possible for people to lose any of their rights, it seems implausible to think that an *innocent* threat would do so by his threatening the victim. For, unlike aggressors, innocent threats do not themselves do anything wrong. The defender's rights are indeed not threatened by the innocent threat *per se*. If there is any infringement involved at all, then this is due to some third party in whose aggression the innocent is involuntarily involved. Although the innocent threat in fact does pose a threat to the defender, his "doing" so is merely non-autonomous. Since, according to libertarianism, only actions (i.e., autonomous behaviors) can amount to rights-violations, the innocent threat actually does not violate the defender's rights (since he does not act at all). Although there is an action involved, that very action lies outside the innocent threat. Therefore, he cannot thereby have lost any of his rights, and so killing him would imply violating his rights.

This seems to be the view of Michael Otsuka (1994). He says:

Might [an innocent] Threat lose her right not to be killed because, and just in case, she will otherwise cause your right not to be killed to be violated? I do not think so. If a gust of wind had hurled this Threat in your direction, the Threat could not have caused any rights violation whatsoever and hence could not have lost her right not to be killed. (1994: 82)<sup>117</sup>

Otsuka goes on to claim that "...an appeal to the mere fact that Threats, but not Bystanders, will kill you unless you kill them is not sufficient to justify the claim that Threats, but not Bystanders, may be killed in self-defense" (1994: 84). On his view, "[t]he very property – of being not responsible for that which threatens the life of another – makes it impermissible to kill the innocent person..." (1994: 86).

This moderate view has some interesting implications. At the same time as the innocent threat retains her rights, the defender possesses a right not to be interfered with. What is the defender allowed to do in such cases? According to Otsuka, the only thing we can say is that "[i]f the innocent victim of such a Threat or Aggressor cannot help but instinctively and lethally strike back in the heat of the moment, then she may be excused on the grounds that she is not a morally responsible agent at that moment either" (1994: 93-4). This, however, should be a hard bullet for libertarians to bite. Presumably this clash between the rights of innocent threats and the rights of defenders is also the reason why Nozick says that he shall "tiptoe around these incredibly difficult issues..., merely noting that a view that says it makes nonaggression central must resolve them explicitly at some point" (1974: 34-5).

Fortunately, the view that innocent threats have inviolable rights not to be interfered with is compatible with the view that defenders have a right to defend their

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<sup>117</sup> In a similar vein, McMahan – an authority in the field of the ethics of self-defence – argues that "...just as a right cannot impose a duty on a tiger not to charge or on a boulder not to fall, so it cannot impose a duty on a person not [to] pose a threat in a way that involves neither agency nor responsibility. A Nonresponsible Threat [i.e. an innocent threat], therefore, can no more violate a right than a charging tiger or a falling boulder can" (2002: 413).

territories, even in case such a defense would cause the death of innocent threats. Of course, the defender has no *unconditional* right to kill the threat (innocent or not), but he has a right to defend his territory in ways that result in the death of the threat: A right to self-defense that may result in the death of the threat does *not* equal a right to kill him! (The innocent threat also has a right to defend himself against any repelling act of the defender, but that is another issue.)

This compatibility can be explained with the help of a famous example given by Thomson:

You wake up in the morning and find yourself back to back in bed with an unconscious violinist. A famous unconscious violinist. He has been found to have a fatal kidney ailment, and the Society of Music Lovers has canvassed all the available medical records and found that you alone have the right blood type to help. They have therefore kidnapped you, and last night the violinist's circulatory system was plugged into yours, so that your kidneys can be used to extract poisons from his blood as well as your own. The director of the hospital now tells you, "Look, we're sorry the Society of Music Lovers did this to you – we would never have permitted it if we had known. But still, they did it, and the violinist is now plugged into you. To unplug you would be to kill him." (1971: 48-9)

In this example, you are the victim, the violinist is an innocent threat to you, and the Society of Music Lovers is the aggressor. As Thomson argues: "If anything in the world is true, it is that you do not commit murder, you do not do what is impermissible, if you reach around to your back and unplug yourself from that violinist to save your life" (ibid.: 52). Even when considered from a libertarian view, this example shows that a self-defensive action that causes the death of an innocent threat might very well be permissible.

This upshot can be further underpinned. As we saw in chapter 2, all rights-violations are wrong and all rights-violations are infringements. Still, not all infringements are rights-violations. An infringement is not a rights-violation if it is somehow justified. The "ought" implies "can"-principle is one potential justifier in this respect, and avoidance of moral catastrophe is perhaps another. In any event, the right to self-defense is one such justifier for infringement. Applied to the issue at hand, this particular right implies that the agent may permissibly do things in self-defense that she would not be permitted to do if they were not done in self-defense (as long as there is a correct description of the action saying that it is a mere defense of the agent's moral territory). Therefore, it does not matter here whether the innocent threats have lost any of their rights, or even whether rights can ever be lost.

Moreover, the various threats of climate change in fact have little to do with innocent threats. Rather, as the conclusions of the previous chapters reveal, most people against whom we have reason to defend ourselves in view of climate change are *not* innocent. Still, as mentioned in the previous section, it is likely that our defensive actions against our aggressors will affect innocents too. Those innocents, however, will typically not be threats, but rather *bystanders*.

### *Innocent Bystanders*

What about the innocent bystanders then? In fact, no version of libertarianism (strict or moderate) permits that we defend ourselves in any way that infringe innocent bystanders. For example, if A is trying to steal B's legitimately possessed fossil fuels, then B is obviously not allowed to use any innocent bystander C as a shield (if doing so violates C's rights) in order to hinder A from stealing his fossil fuels. This prohibition holds also in case the only way a person may defend himself against, say, another person attempting to kill him, requires that some bystander's rights are violated.

Thomson shares this understanding. She says that "[i]t seems to me very plausible [...] to think that, given that Y is clearly a bystander to the situation that consists in X's being at risk of death, Y has a right that X not kill Y" (1991: 299). Otsuka shares this view too. He says that "[i]t is impermissible to kill a bystander to prevent oneself from being killed" (1994: 76). In the climate case, this view implies that we may only defend ourselves against other peoples' climate-relevant activities via means that do not cause infringements to any innocent bystander.

This upshot, however, appears to be at odds with one of our previous arguments: that self-defense can function as a justifier for infringement. For if self-defense can function as a justifier for infringement when it comes to innocent threats, as I argued above, then why could it not also justify infringement when it comes to innocent bystanders?<sup>118</sup> If the right to self-defense implies that a defensive act does not violate the rights of the innocent threat, although it crosses his boundary without his consent, then this same right also seems to imply that the innocent bystander's rights are not violated either, although the defensive act crosses his boundary without his consent.<sup>119</sup> This seeming implication is tricky. If there is anything a libertarian theory of rights should guarantee, then it is that innocent bystanders may not have their rights violated in the course of other people's conflicts!

As it may appear, the only way of guaranteeing this is to deny that the right to self-defense can function as a justifier for infringement. However, if that were to be done, then it is also unable to explain how people may defend themselves in ways that affect innocent *threats*. And then we are back at Otsuka's position, where neither innocent threats nor innocent bystanders may be killed, or in other ways have their rights violated, in self-defense.

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<sup>118</sup> A similar concern is raised by Kagan (1994: 36): "[I]f it is compatible with respect to infringe a value so as to stop someone from violating that value, why is this so only when your infringement of the value is directed at the very person who is trying to violate the value? Why wouldn't it also be compatible with respect to infringe the value with regard to innocent bystanders, if this is indeed the only way to stop the person who is trying to violate the value?"

<sup>119</sup> Narveson, for instance, appears to adopt this view when it comes to catastrophic circumstances. He says (2013: 374): "In catastrophic circumstances, defending ourselves may be impossible without doing violence to innocents. If the libertarian right is based on considerations of self-preservation or the like, then it surely allows us to prefer preventing the heavens falling to what some consider 'strict justice.'"

If Otsuka is right, then there is no way to account for the permissibility to act against innocent threats that does not also apply to innocent bystanders. But is he right? I think not. One relevant difference between the innocent threat and the innocent bystander is that the former, but not the latter, will eventually violate the rights of the defender. Even if the innocent threat is *involuntarily* involved in the aggression that takes place, he is in fact involved. The innocent bystander, on the other hand, is (per definition) not. And *this* makes a crucial difference with respect to the permissibility of defensive action against the first, but not the second.

Of course, not even the innocent threat has transgressed the territory of the defender at the time of his defensive action. But remember, the right to self-defense is pre-emptive: *Given* that the innocent threat *would* transgress the defender's moral territory were he not to defend himself, he is justified to act defensively against the innocent threat. A similar justification does *not* hold with regard to the innocent bystander, since the innocent bystander would *not* transgress the defender's territory were he not to defend himself. For this reason, libertarianism yields a permission to defensive action that affects innocent threats, while it retains a prohibition of defensive action that affects innocent bystanders without their consent. For example, it permits pulverizing innocent threats in order to protect one's boundaries, while it prohibits pulverizing innocent bystanders in order to hinder such (or any other) threats.<sup>120</sup> What appeared at a first glance therefore remains even after closer scrutiny: No version of libertarianism (strict or moderate) permits that we defend ourselves in ways that violate the rights of innocent bystanders.

### *Redirections of Threats*

This, however, does not exclude that libertarianism permits *redirections* of threats, as means of self-defense, unto innocent bystanders. Indeed, merely redirecting a pre-existing threat to an innocent person is different from initiating a previously non-existing threat to that person. To illustrate this, consider a case where the only way in which I could stop you from driving your old gas-guzzling car on the road outside my window, and thus spewing exhaust fumes down my lungs, is by luring you onto an alternative road outside my neighbor's house, with the result that you will spew exhaust fumes down his lungs instead. Am I unpermitted to do this according to libertarianism?

On this particular issue, Walter Block (2011) has argued that someone who is the victim of some unwanted effects is not permitted to redirect those effects to some-

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<sup>120</sup> Perhaps one could argue that there is a condition, similar to the so-called Doctrine of Double Effect, for the permission to act against innocent threats. This would invoke the necessity-condition, discussed above, and imply that an agent A is allowed to defend himself against the aggressive acts of another agent B, in a way that infringes an innocent person C, if and only if A's infringement on C is neither intentional nor avoidable (but perhaps foreseeable). How, if at all, this condition could be explained with mere libertarian resources, I cannot answer here. For some formulations of this principle, and discussions regarding its plausibility and applicability, see the entry "Doctrine of Double Effect" in the Stanford Encyclopedia of Philosophy: <http://plato.stanford.edu/entries/double-effect/>. Accessed on April 10, 2016.

body else who is innocent when it comes to the existence of those effects. He motivates this idea on basis of what he calls “the theory of *negative* homesteading” (2011: 626, my emphasis), according to which the person who is the first to have his labor mixed with some negative effects (e.g., unhappiness or misery) becomes the “owner” of those negative effects. Hence these effects may not be passed onto anyone else without their consent. As Block says, “[t]he ownership of misery, as it were, must stay with its first victim, according to this principle” (ibid.).

However, this cannot be so simple. Whether or not libertarianism permits redirections of pre-existing threats unto other people depends on *where* in the causal chain – meaning in between the initiating agent and the affected victim – the redirection takes place. For instance, if you wrongfully put some garbage in my bedroom, then I am not allowed to pass this garbage on to another person’s bedroom without her consent. This is because *my* redirecting action breaks the causal chain that you initiated (and hence it is no *mere* redirection). Although you certainly violated *my* rights when putting the garbage in my bedroom, you are not the *cause* of the wrongdoings to the other person. In the gas-guzzling car case, however, I am allowed to redirect your driving to another road, even if it will result in you then spewing exhaust fumes down the lungs of my neighbor instead of me. This is due to the fact that, although my redirecting act does break the casual chain in a way that makes me responsible for what happens, you take it over again once you drive further. Although you would not have violated the rights of my neighbor had I not redirected your fume-spewing driving, you are still the reason behind the spewing in the first place, and thus to the actions that will wrong my neighbor.

But what shall we say about cases where an agent’s action *definitively* breaks the casual chain between the initial act and the rights-violating outcome? What if, for instance, I use fans so as to keep my territory clean from other people’s carbon dioxide emissions and the extreme weather events that these in turn produce? May I do so, or will I thereby violate the rights of those who are then affected by these emissions and weather events instead? Here, I think we should say that although I am not the initial cause of the carbon dioxide emissions, nor of the extreme weather events, my redirection is definitive and thus impermissible. Such cases, however, lead us away from questions that essentially have to do with self-defense, to more complicated questions regarding collective wrongdoing. I address those questions separately in chapter 8.

### 6.3. Concluding the Chapter

In this chapter, we have seen that individuals have a right to defend themselves against the effects of climate change, as well as against both risky and otherwise wrongful climate-relevant activities of other people. Moreover, libertarianism permits defensive actions even against innocent threats, given that they would transgress the defender’s moral territory were he not to defend himself. However, we are not allowed to initiate any act that affects innocent bystanders without their consent,

although we may redirect already existing threats to them – as long as the very rights-violating action is due to another agent.

What this means is that libertarianism says that we may act in self-defense in ways that affect threats, and threats only. All of this is explicable with reference to the enforcement right in combination with the non-aggression principle: An agent is permitted to defend his territory from any threat (innocent or not), as long as he does not thereby violate the rights of any non-threatening innocent (i.e., bystander). However, since most problems related to climate change stem from aggressors rather than innocents, our room for maneuver for climate-related self-defense is fairly unrestricted.

Given the nature of the self-defense right, it does not provide any further libertarian argument directly against people's climate-relevant activities. But it does provide an argument in support of actions to counter such activities. Also, the enforcement right – of which the right to self-defense is *one* instantiation – leaves some room for third-party intervention. This connects to the question of governmental interventions for the sake of preventing climate change, which is further explored in chapter 9. Before that, however, we shall consider some intergenerational climate issues and some questions concerning collective wrongdoing.

## 7. Intergenerational Climate Issues

Climate change is a temporally extended problem: It affects people belonging to several different generations. As mentioned in previous chapters, the greenhouse gases we emit at present will stay in the atmosphere for a very long time, and thus affect not only our contemporaries but also future generations. IPCC, for instance, reports that “...some fraction (about 20%) of emitted CO<sub>2</sub> remains in the atmosphere for many millennia” (2007: 824). This raises questions as to how we should consider the people who will be affected in the times to come. These will be considered in the first section of the chapter. I argue that libertarianism can provide at most limited moral protection for future generations.

Another intergenerational aspect of climate change is that the climatic changes we experience today to a large extent stem from the historical emissions of our ancestors. This means that *even if* every presently living person were to stop emitting completely from now on, there will be climatic problems due to the historical emissions of previously living people. In the second section of this chapter, I shall argue that there is a way for libertarianism to deal with the problem of historical emissions as well.

### 7.1. Reproduction and Future Generations

One of the aims of the climate debate is to create a sustainable development. Such a development involves taking the needs of future people into account.<sup>121</sup> In this respect, the climate problem concerns future generations.

There are at least two potential implications of libertarianism that are of special interest with regard to future generations. First, if it could be argued that there are moral restrictions as to how many people there should be – or as to how many (if any) children people may have – then that would indirectly influence human induced climate change. Indeed, the size of future populations, along with their consumption rates, influence humanity’s overall climate impact.<sup>122</sup> Second, if it could be argued that if future people have a direct moral standing – worthy of direct moral consider-

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<sup>121</sup> One widely used reference here is *Our Common Future* (also known as the *Brundtland Report*), published by the World Commission on Environment and Development in 1987, which defines “sustainable development” as “development which meets the needs of the present generation without compromising the ability of future generations to meet their own needs”.

<sup>122</sup> See, for instance, and Ehrlich and Ehrlich (2009).



ability – then we have a duty not to violate their rights via our climate-relevant (or other) activities. In this section, I scrutinize libertarianism’s implications with regard to both of these matters.

### *A Note on Reproduction*

Regarding the question of reproduction, one might think that it is better from the perspective of climate change not to put more people into the world. From a libertarian perspective, it might be thought that parents at the very least have a duty to bring up their children in ways that will not make them aggressors – in climate-relevant or other ways. This seems to be the view of Jan Narveson, who argues that “[i]n the same way that people have a responsibility not to allow their property to create nuisance or danger to others, so too they have a responsibility not to bring up their children in ways that will make them a nuisance or danger to others” (2013: 388).

However, according to the self-ownership thesis, every person owns herself. This means that as soon as your children reach a level of maturity that grants personhood (at whichever age that is), they become self-owners. They have then, literally speaking, become their own. From that point in time, they are morally accountable for everything that results from their actions. Although their very existence is caused by your reproductive activity, the morally relevant link is definitively broken once they become persons: There is then an intervention by *another* moral agent (i.e. them). Consequently, you as a parent no longer have any moral responsibilities for their actions. Only *before* that are you as a parent responsible for the effects that are due to your children.

This implies that you are permitted to have as many children as you like, and bring them up in any way you like, as long as your childbearing or upbringing violate no rights. However, since more children require both more emissions and more resource-use, and as we have already seen that emissions and resource-use frequently violate people’s rights, libertarianism implies that it is practically harder to act permissibly if having more children than if having fewer.<sup>123</sup>

When it comes to appropriations of external resources, it is also harder to satisfy the libertarian provisos – that is, the enough-and-as-good condition (Lockean libertarianism), the equality-condition (left-libertarianism) and the no-worse-off condition (Nozickean right-libertarianism) – the more people there are on the planet sharing those resources. This was explained in chapter 4. It will thus be harder for you as a parent, being responsible for the resource consumption of your offspring until they become self-owners, to satisfy these respective provisos. Until then, their consumption will be charged to your account. Hence, Lockean libertarianism, left-libertarianism and Nozickean right-libertarianism alike put some limits (albeit indirectly) on how many children people may have. However, radical right-libertarianism – denying any proviso – does not yield this restriction. Considering

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<sup>123</sup> For a thorough discussion regarding the moral status of children and fetuses on libertarianism, see Andersson (2007).

the previous paragraph, however, even radical right-libertarianism suggests that it is at least practically harder to act permissibly the more children you have.

### *The Moral Standing of Future People*

Moving instead to the question concerning the moral standing of future people, libertarianism is known to have some interesting implications. This is partly due to libertarianism's person-affecting restriction, which is a direct consequence of the non-aggression principle. According to this restriction, all rights and duties are at the end of the day *personal*. If someone has a duty, then this duty regards either a rectification of an earlier wronging of *someone*, or compliance so as to not wrong *anyone* henceforth.

Given this, it might be argued that since future people do not now exist, they do not now have rights, and so we cannot wrong them at this point in time. However, the person-affecting restriction need not be cast in *presentist* terms, ascribing direct moral standing only to present people. Instead, libertarianism could be cast in *actualist* terms, ascribing direct moral standing to all actual people (whether present or not). According to the actualist conception, our climate-relevant activities could violate the rights of future living people, although they do not exist at the time of our activities. Given that our climate-relevant activities have effects that cross the boundaries of future people, and these future people do not consent to these crossings, libertarianism implies that these emitting activities are impermissible also for *that* reason.

Perhaps, however, one could think that if it takes *too* long time – say, several hundred years – between my emissions and the boundary-crossings they cause, then no wrongdoing can take place. But this line of thinking is incoherent with libertarianism, since, on libertarianism, mere temporal distances are irrelevant. If I perform an act *A* at a certain time *t*, and the effects *e* of *A* at a later time *t'* crosses someone's boundary without consent, then *A* is typically impermissible. The amount of time that has passed between somebody's action and someone else being nonconsensually affected by that action does not matter. For instance, if I throw radioactive waste in the ocean, and somebody happens to come into contact with that thousands of years later, then I have violated that person's rights. And thus, throwing radioactive waste in the ocean is impermissible. Likewise, it holds that *if* our climate-relevant activities cross the boundaries of people in the far future without their consent, then these activities amount to infringements and are thus typically impermissible.

### *The Non-Identity Problem*

There is a famous and difficult-to-avoid argument as to why our emissions nevertheless do not violate future people's rights. This argument originates from Derek Parfit (1984: Ch. 16), and is called *the non-identity problem*. It has it that, roughly, since our choice of actions at present will affect which people live in the future, those who actually will exist in the future (whoever they will be) would not have existed had present people not done what they do. Hence, those who live in the future cannot have their rights violated by our present choices of actions.

The underlying idea is that any particular combination of sperm and egg determines the genome of the fetus resulting from that combination, and that every person's genome is unique to the identity of this person. Hence, even minute changes in people's procreative choices will result in changes in the identity of the persons who are later born. And since our choices of actions at a certain time will affect people's procreative choices made at later times, our choices will in effect influence the identities of future people.

For instance, if the car would not have been invented, or if it would not have been launched in the Swedish market when it actually was, then my grandparents would most certainly never have met. Assuming they would have met anyway, they would never have given birth to the persons who are now my parents. And, even so, my parents would most probably not have met if Stockholm would not have built a subway system when it actually did. And if they would miraculously have met anyway, they would most probably not have given birth to their first child on January 10, 1980. And even if they had done so, that child would most certainly not have been *me*.

More generally, the particular people who actually will exist in the future would not then have done so if we would have done something else than what we actually do. For this reason, future actual people will not reasonably object even to our climate-relevant activities, yet they will have their boundaries crossed by them. Consequently, future people will reasonably consent – implicitly, at least, for those who are content with their lives – to the choices of actions that we now make. Moreover, those future people who nevertheless dissent to these activities will have their dissent invalidated by virtue of this very circumstance.

To clarify why this is a problem in view of climate change, consider the following example given by Parfit (1984: 361-2):

As a community, we must choose whether to deplete or conserve certain kinds of resources. If we choose Depletion, the quality of life over the next two centuries would be slightly higher than it would have been if we had chosen Conservation. But it would later, for many centuries, be much lower than it would have been if we had chosen Conservation. This would be because, at the start of this period, people would have to find alternatives for the resources that we had depleted.

If we, the present generation as a community, choose Conservation – and thus, say, undertake immediate and significant action in order to mitigate climate change – then *some* particular individuals will be born in the future. If we instead choose Depletion – and thus, say, keep on doing business as usual – then *some other* particular individuals will be born in the future. This appears to have the implication that with respect to future people, none of our present choices – neither Conservation nor Depletion – will violate the rights of any future people. And so, both options are permissible from the perspective of *their* rights. However, from the perspective of climate stability, Conservation – just as any climate change-mitigation course of action in general – is the preferable choice.

### *Could the Non-Identity Problem be Avoided?*

Perhaps, the non-identity problem could be avoided. If so, libertarianism could perhaps provide a reason for choosing Conservation before Depletion. One possible way in this regard would be to deny that the identity of the future people matters. This amounts to what Parfit calls *the no-difference view* (1984: 366-7). Thus we could still care particularly about people, without caring about particular people. By doing so, we could argue that the future people (whoever they are) will actually be better off if we choose Conservation than the future people (whoever else they are) would be if we choose Depletion. Nonetheless, this would be unfaithful to the separateness of persons thesis, as implied by the individualist stance of libertarianism. And for this reason it does not offer any assistance in the present context.

Another putative way of avoiding the non-identity problem would be to assume that people have certain positive rights – for instance, a right to an unpolluted environment – along with their negative rights. The primary problem with this assumption, however, is that it is incompatible with the libertarian core assumption that people possess full moral self-ownership. As we have observed previously, the positive rights of one individual obligate other individuals to satisfy those rights, which means that those other individuals cannot initially be morally free to decide not to do anything at all.

Yet another potential solution to the non-identity problem, in connection to climate change, has been proposed by John Broome (2012: 63). This proposal points out that although the non-identity problem would be relevant when it comes to emissions of *collective* agents – such as governments, corporations and entire generations – it might be irrelevant with respect to emissions of separate *individual* agents. Briefly, the idea is that even if our individual emissions cross people's boundaries, the effects of our individual emissions are not sufficient for an alternation of who will live in the future. As Broome says, “for a long time, the identities of most people in the world would not have been affected by your reduction in emissions” (2012: 63).

Of course, this proposal rests on empirical speculation. However, this speculation does not seem entirely mistaken. Indeed, to think that the identity of *all* future people would hinge on whether you make only subsistence emissions or additional luxury emissions seems far more mistaken. We should not forget that the effects of our separate individual emissions, as argued in chapter 3, are miniscule and imperceptible. Moreover, this observation hints at a way to further strengthen Broome's argument: There needs to be only *one* single future individual whose identity is *not* altered by your emissions, and whose boundaries are crossed by them without her consent, for these emissions of yours to be impermissible on libertarianism.

Still, this argument is problematic. On the one hand, it implies that *minor* luxury emissions (produced, for instance, by an individual's Sunday drive) might turn out to be impermissible – since it has only small effects that do not alter the identity of future people. On the other hand, it implies that *major* luxury emissions (made, for instance, by an entire nation's coal plants) might turn out to be permissible – since

its effects are large enough to alter the identity of future people. This, of course, is implausible in itself. But, what is more, it makes any future person's objection to separate individuals' emissions illegitimate. As we recall from chapter 3, people dissent to the luxury emissions of individuals for the reason that they *together* give rise to outcomes they dislike. If, in the particular case of future generations, part of the overall effect of the individuals' aggregated emissions is that these future people exist (which, we may assume, they do not dislike), then that is something they consent to.

However, not even the emissions of the entire present generation will necessarily alter the identities of *all* future people. To simply take for granted that the identity of *no* future person would be the same, independently of whether present people choose to eliminate all their luxury emissions or to keep business as usual, plainly does not seem right. It seems plausible that at least *some* future individuals – for instance, of the near future or of indigenous cultures isolated from the rest of human civilization – will not have their identities altered based on present people's choices. And, as before, there needs to be only *one* future individual whose identity is *not* altered by our choices of action. If this future person's boundary is crossed by our present luxury emissions, and if she does not consent to those crossings, then these emissions of ours violate *her* rights. Consequently, despite the non-identity problem, libertarianism does not let us neglect future generations completely.

Some might object that *if* there are any aboriginal people whose reproductive choices will *not* be affected by the global climate politics – and whose children's identities will thus *not* be affected thereby – then the climatic effects due to these policies must pass unnoticed by them. Consequently, they will not have any objections to the global climate politics either (whichever it is). The thing is, however, that even if the fact that underlies these people's lack of consent is the very same fact that might affect their identities – namely, floods, storms, heat-waves, etc. – these climatic effects are preceded by greenhouse gas emissions that, in line with the arguments of chapter 3, cross people's boundaries *without* affecting their reproductive choices. Hence these people's dissent (or mere lack of consent) must be regarded as valid. For that reason, libertarianism still implies that our emissions violate these people's rights.

Of course, if these people were affected by the climate policies in any *other* respect – perhaps they have gotten cellphones and the like as a result of those policies – then their reproductive choices, and hence identities, would presumably have been affected in that way. This emphasizes that the argument concerns perhaps only isolated people who have not been affected by global climate policies at all. This in turn indicates that the argument might concern, at most, a very small number of future people. However, a small number is enough (indeed, even *one* is) according to individualist views such as libertarianism.

In any case, it also seems that those future people who will have lives *not* worth living due to climate change will as well have valid complaints against their predecessors – even if their existence is contingent on present people's actual choices of action. Sure, they would neither have existed, nor have been able to complain about

their situation, had their predecessors not given rise to climate change. But since this existence is not something they benefit from (but rather something they dislike), that correlation does not undermine their eventual complaint. Indeed, they may still prefer “never coming into existence” to their actual “nasty existence”. If the fact that some future contingent people are content with their lives is what invalidates their dissent to present people’s actions, then such an invalidation does not apply to those people who are not content with their lives. Hence, the dissent of these particular people is not annulled by the non-identity problem. For this reason, the non-aggression principle seems to provide moral protection also for those future people whose lives are *not* worth living, even though their existences are contingent on present people’s actual choices of action.

Perhaps one could here object and say that these particular future people have complaints only against their *parents’* reproductive choices, but not against the choices of earlier generations: It is not *our* fault now that people in the future are born into a dissatisfying world! But even though their parents are responsible for putting their children into existence, they are not responsible for the world in which their children will exist. Therefore it seems plausible that future people who, for external “worldly” reasons, are discontent with their lives have valid complaints both against their parents and against those of us here and now whose luxury emissions and other climate-relevant activities contribute to the destruction of their world.

#### *Implications of the Libertarian Provisos*

Let us now turn to the libertarian provisos for external appropriations to see whether these could lend a more general protection to future generations. Nozick’s proviso, to start with, appears unable to do so. In fact, it too is vulnerable to the non-identity problem, since it targets actual people’s comparative levels of well-being from an *intrapersonal* point of view: It compares particular people’s levels of well-being to their own (though counterfactual) levels of well-being in alternative courses of nature (where the appropriation at stake does not take place). Although Nozick does not seem to have been aware of the non-identity problem himself, this makes his proviso incapable of catering more for future people than allowed by the previous lines of reasoning.<sup>124</sup>

The various left-libertarian provisos (as well as Locke’s proviso) might fare better in this respect. This is because they are *invulnerable* to the non-identity problem. This, in turn, is because they basically target an egalitarian (or, perhaps in Locke’s case, a sufficientarian) distribution of resources or opportunities to people in general. In other words, these provisos are not concerned with particular people, but with the

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<sup>124</sup> The non-identity problem also seems to be neglected by Elliot (1986), who argues that Nozick’s proviso implies rather extensive obligations with respect to future generations. Unlike Nozick, Elliot at least *could* have read Parfit (1984). Having said that, there are certainly many books and articles that *I* could have read that would have improved my own assessments in this dissertation.

resources and opportunities of whoever will exist in the future. As summed up by Michael Otsuka, “the egalitarian proviso, when fully spelled out, requires that the members of each succeeding generation have at least as great an opportunity to own worldly resources as did the first generation to acquire resources out of a state of nature” (1998: 88).

So what exactly does this egalitarian proviso imply for future people? As mentioned in chapter 4, most left-libertarian views – concerned with natural resources in general or opportunities for well-being – are open to unequal shares of resources given that those who get less of them are somehow *compensated* for this. In order to determine whether present people’s appropriations of natural resources violate that requirement with regard to future people, we thus need to determine whether these future people are compensated in the relevant respect.

Perhaps it could be argued that they are. Economists’ predictions say that although future people will have a poorer environment than present and previous people, they will have greater material wealth overall.<sup>125</sup> This implies that if future people were themselves to choose whether to inherit an alternative world with an untouched nature but only few artificial resources, or the actual world full of artificial resources gained through exploitation of nature, they would reasonably choose the actual world. In fact, the actual world is – and the alternative “untouched” world is not – full of knowledge, technology, architecture, economic infrastructure, culture and other resources that they would *not* have had access to had we not exploited nature. And since a poorer environment is unavoidable given the creation of this great material wealth, they cannot have both. Hence, it seems, future people are being compensated in a way relevant to the left-libertarian provisos.

A closer inspection, however, reveals that things are more complicated. It may be that *in general*, future people will be better off than they would have been had we not done what we do now. But, as we saw in chapter 3, some *particular* people will die young due to our excess appropriations of climate-relevant resources (including our emissions regarded as appropriations of the atmospheric absorptive capacity). For obvious reasons, not all of these people can take advantage of the greater future wealth, and plausibly some of them are thus not appropriately compensated. Therefore, the compensation argument is ineffective.

The basis for this ineffectiveness also makes the compensation argument vulnerable to the non-identity problem. Because, even if the left-libertarian provisos are basically concerned with resources and opportunities to whoever will exist in the future, the idea of compensation *as such* is individualistic, and is thus targeted to particular individuals. And most of those particular future people who will die or suffer from climate change would not even exist if the causes behind climate change were removed. Again, therefore, the compensation argument is unfruitful as an escape route with respect to the left-libertarian provisos. Consequently, present people’s appropriations of natural resources violate these provisos in view of (at least some) people of future generations.

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<sup>125</sup> See Broome (2012: 60-1) and references.

To recap, future people who will not have their identities altered by present people's choices of action (as, for instance, individuals of the near future or populations isolated from the rest of human civilization), or who will not have lives worth living (although their identities would be contingent on the actions of present people), will not be affected by the non-identity problem. Hence, both of these groups of future people will have valid complaints against the climate-unfriendly activities of present people. Moreover, the Lockean and left-libertarian provisos require that we take future people's lives – whoever they are – into account when appropriating climate-relevant resources.

## 7.2. The Problem of Historical emissions

The climatic changes we experience currently stem partly from the emissions of our ancestors (see chapter 1 and 3). Since these people are not alive today, they cannot themselves rectify any potential wrongness due to their emissions. As implied by the libertarian individualist position, no one initially has any duty to correct for anyone else's wrongdoings. At a first glance, therefore, libertarianism does not require that individuals of present generations correct for the excess emissions of previous generations. Hence, it also seems that climate change cannot be fully prevented through mere libertarian obedience by present people. At a closer look, however, things appear to be different.

As we remember from chapter 2, and as was further stressed in chapter 4, libertarianism is history-sensitive. This means that present people's belongings are illegitimate – they do not own them – if they are the result of illegitimate appropriations in the past. As Hillel Steiner puts it, “[a]ll made things have natural resources as ancestors. And hence rights to those made things can be no more valid than the titles to each of their ancestors” (2009: 2-3). On the basis of this observation, I shall argue in this section that libertarianism's built-in principle of rectification requires that people correct not only for their committed wrongdoings, but also for their illegitimate holdings. I shall moreover argue that this holds *even if* the original illegitimacy in question is through the faults or choices of others. This, I argue, makes libertarianism capable of dealing with the problem of historical emissions.

In doing so, I first show that some of the emissions of past people were illegitimate in a sense that triggered the principle of rectification. I then defend the claim that the material wealth of present rich people stems, in a sense that is relevant to libertarianism, from these illegitimate emissions in the past. Based on these premises, I draw the conclusion that the principle of rectification obligates the present rich people to correct for these illegitimacies, which in practice requires emptying the atmosphere from the greenhouse gases that made the historical excess emissions illegitimate in the first place.



### *Excess Emissions in the Past were Illegitimate*

If it cannot be maintained that past people's emissions were originally illegitimate based on a libertarian account, then it certainly cannot be argued that there is any related illegitimacy to correct for present people. So, were the emissions of past people illegitimate on libertarianism?

In chapter 4, we saw that emissions of greenhouse gases can be seen as acts of appropriation of the atmospheric absorptive capacity (considered a natural resource). We also saw that libertarianism puts constraints on any act of appropriation of a resource for it to be *legitimate* – that is, to generate *moral ownership* of the resource. A brief review reveals that there are, roughly, two constraints on legitimate appropriation: (i) the resource must not itself be stolen, or appropriated with the help of stolen resources, and (ii) the resource must not be appropriated in a way that violates a relevant proviso, or consist of resources whose appropriation violates a relevant proviso. Let us briefly revisit the ideas behind them in turn.

Constraint (i) is fairly obvious. Thefts, frauds or robberies of resources never generate ownership of those resources. If I steal your hammer, for instance, I do not become the owner of that hammer. Note, however, that acts of appropriation that are illegitimate for this particular reason are never *original* – they do not concern resources that are previously unowned. Moreover, acts of appropriation that involve *stolen* resources fail to generate *private* ownership of the new resources thus being appropriated. Indeed, such appropriations involve not only the appropriator's labor-mixing but also, in effect, the labor-mixing of the owner of the stolen resources used in the new appropriation. If I steal your hammer, and then use it to build a house, I also mix *your* labor with that house – and hence it is also yours. I argued in favor of the plausibility of this constraint in section 4.4.

Constraint (ii) deserves a more careful review, as it is the most relevant constraint in connection to historical emissions. First, recall that the reason why there is human induced climate change at present is because humans have emitted more greenhouse gases into the atmosphere than it is capable of absorbing. As explained in chapter 4, this implies that the atmospheric absorptive capacity, considered as a natural resource, has been *over-used* in a sense that is relevant according to all libertarian provisos for external appropriation: According to Lockean libertarianism, some people have emitted so much that they have thereby used the atmosphere in a way that have not left enough and as good for others; According to joint ownership left-libertarianism, some emitters have used the atmosphere without the required consent from the other people of the collective; According to equal share left-libertarianism, some people have emitted so much that they have consumed more than an equal per capita share of the atmospheric capacity (and so without paying compensation to the others); According to equal opportunity left-libertarianism, some people have used more of this capacity than they needed for an equal opportunity for well-being (and so without paying compensation to the others); According to Nozickian right-libertarianism, some people have emitted so much that they have put others in a worse situation than they would have been had these emission not taken place. Con-

sequently, all these versions of libertarianism imply that the excess emissions of our ancestors (as determined by each respective proviso) amount to illegitimate appropriations of the atmospheric absorptive capacity.

Before turning to the applicability of the principle of rectification to the illegitimate historical emissions, let us consider an objection to the idea that the excess emissions of past people were at all illegitimate (seen as appropriations of the atmospheric absorptive capacity). This objection points to the potential justifiers for infringement, as brought up in chapter 2 and further discussed in chapter 3. Although these were discussed as potential justifiers for *infringement*, one could argue that they may also function as justifiers for illegitimate appropriation. For example, one might think that since emitters in the past were not aware of the climatic effects of their emissions, the proviso-violations caused by their emissions were morally justified. And, hence, one might claim that no related illegitimacy ever arose.<sup>126</sup>

However, this argument is unsuccessful. We have already seen several times that libertarianism endorses strict liability: It says that agents are morally responsible for any effect caused by their autonomous agency, whether or not they intend or foresee such effects. This also indicates that libertarianism does not assign any relevance to ignorance with regard to the illegitimacy of historical appropriations (although it might perhaps do so with respect to *blame* and *praise* for such an appropriation, which is a separate issue). Hence, we have reason to think that the excess emissions of our ancestors do amount to illegitimate appropriations of the atmospheric absorptive capacity.

Let us now turn to the applicability of the principle of rectification to the illegitimate historical emissions. In chapter 2, I said that this principle requires that compensation is paid whenever a rights-violation has occurred, where the compensation required is such that the victim would have been indifferent between not being infringed upon and being infringed upon alongside receiving the compensation.<sup>127</sup> Since, as shown above, an appropriation of a resource is illegitimate if it violates the rights of the owner of that resource (e.g., in cases of theft), the principle of rectification applies to at least some cases of illegitimate appropriations.

Since we have seen in chapter 4 that all proviso-violations amount to rights-violations, we may conclude that the principle of rectification also kicks in whenever a proviso-violation has occurred – that is, when an appropriation is illegitimate because the appropriator takes possession of more resources than allowed by the relevant proviso. Nozick provides a cogent rationale for this when motivating the principle of rectification. He says (1974: 150-52) that this principle applies whenever there is “injustice in holdings”, and that such injustice may stem from injustice in “original acquisition of holdings” (i.e., original appropriation in my terminology) or from injustice in “transfer of holdings” (i.e., non-original appropriation in my terminology). He also argues (1974: 178) that “...any adequate theory of justice in acqui-

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<sup>126</sup> Some arguments along this line are found in Schüssler (2011) and Risse (2008).

<sup>127</sup> See, again, Railton (1985: 213).

sition will contain a proviso...”, from which it follows that violating the relevant proviso is an injustice in holdings, which hence requires rectification.

In case an appropriation of resources involves a proviso-violation, the principle of rectification requires that those excess resources (relative to the proviso) are returned to the commons – for everyone to use – or, if possible, that suitable compensation is paid to all those relevantly affected thereby (as determined by the relevant proviso). This is in line with the arguments of chapter 4.

However, we have not yet established that the principle of rectification implies a duty on present people to correct for the illegitimate appropriations made by past people. In order to determine this, we must determine whether present people’s wealth in a morally relevant sense stems from these excess emissions – that is, in a sense that implies such duties.

#### *The Link between Present People’s Wealth and Illegitimate Emissions in the Past*

It is indubitable that many present people – at least among the rich – enjoy benefits that stem from their ancestors’ emitting activities. In fact, most of the present rich *are* rich because of these previous activities. In the actual world, people’s differences in wealth are closely related to the different development stages of the countries where they live. This connection has been illustrated persuasively by Henry Shue (2010 [1999]: 105):

[T]oday’s generation in the industrial states is far from completely unrelated to the earlier generations going back all the way to the beginning of the industrial revolution. What is the difference between being born in 1975 in Belgium and being born in 1975 in Bangladesh? Clearly, one of the most fundamental differences is that the Belgian infant is born into an industrial society and the Bangladeshi is not. [...] Childhood nutrition, educational opportunities, and lifelong standards of living are likely to differ enormously because of the difference between an industrialized and a nonindustrialized economy. In such respects current generations are, and future generations probably will be, continuing beneficiaries of earlier industrial society.

As this story hints at, the degree of material wealth enjoyed by people today is closely connected to the development stages of different countries. And, as the world happens to be, different development stages are interconnected to the amounts of greenhouse gas emissions made: The richer a country at present is, the more emissions it has made in the past. Based on the plausible assumption that the richer a country is, the richer its individual citizens are in general, we may infer that there is a strong causal correlation between the wealth of the present rich and the historical emissions of their ancestors.

However, a mere *causal* or *counterfactual* correlation between past illegitimate emissions and the material wealth of the present rich does not seem sufficient for establishing that presently rich people have a libertarian duty to correct for those illegitimate emissions. For instance, even the holdings of the present *poor* people are

most likely causally dependent on illegitimacies in the past. But the present poor appear not to have a duty to rectify for the few resources they possess – especially when they would reasonably have possessed more resources had no illegitimacies taken place in the past.

Perhaps a relevant requirement for illegitimacies to pass on from one person to another – be it intergenerationally or intragenerationally – is that the recipient has *benefitted* from the illegitimate appropriations made in the past. Still, it does not seem as if a beneficial link between the illegitimate appropriations of past people and the material wealth of the present rich people is enough for establishing that present rich have a duty to rectify for those illegitimate appropriations. One reason, as we saw in section 7.1., being that the non-identity problem indicates that poor individuals would not even have existed had no historical illegitimate appropriations taken place. Hence it might be argued that they too – at least those poor who live content lives – have benefitted from these appropriations.<sup>128</sup>

At any rate, libertarianism requires more than a counterfactual and beneficial impact of the illegitimate appropriations of one person on the wealth of another person for this other person to have a duty to rectify for those illegitimate appropriations. To illustrate this, suppose that B steals A's legitimately harvested fruits and use them to bake a cake for C, which makes C so glad that she gives some money to her poor neighbor D. Then, obviously, A is the victim of the theft, B is (*qua* stealer) the illegitimate appropriator, whereas both C and D are beneficiaries of that act of theft. However, a crucial difference between the possessions of C and D is that the particular resource (i.e., the cake) that C gets from B is *made from* stolen resources (i.e., A's fruits), whereas the particular resource (i.e., the money) that D gets from C is *not made from* any stolen resources. And this makes C's possession of the cake, but not D's possession of the money, contaminated with the illegitimacy that was initially caused by B's theft of A's fruit. (Of course, if C sold the cake to another person, E, and then gave *that* money to D, then D's possession of the money would be illegitimate too, since it would be "made" from stolen resources.) Hence, only C's possession of the cake is illegitimate, whereas D's possession of the money is not.

As this example indicates, illegitimacies of appropriations are *resource-bound* on libertarianism: The illegitimacy of a once illegitimately appropriated resource stays with that resource, so to speak. Consequently, resources that (wholly or partly) consist of illegitimately appropriated resources are themselves illegitimate – meaning

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<sup>128</sup> I also argued, against the universal applicability of the non-identity problem, that at least *some* among the poor – for instance, indigenous people isolated from the rest of human civilization – have not had their identities varying dependent on past people's actions. I also claimed that those poor individuals whose situation is so bad that they would rather not have been born at all have not benefitted from the actions that put them into existence. These considerations give us reasons for exempting at least some of the poor from the discussion. But it is still true of many *other* poor and (semi-poor) people that they have actually benefitted from the illegitimate appropriations in the past, but yet are not morally responsible to rectify these appropriations.

that their actual possessors do not privately own them. The obligation to rectify for the illegitimacy thus lies with whoever is in actual possession of the resource. With regard to the rectificatory duty to transfer from one person to another, it is thus required that the very resource (or products thereof) is transferred – in the form of a gift, inheritance, sale or the like – between the persons. This has the implication that an illegitimate appropriator, or any possessor of an illegitimately appropriated resource, can break free from the illegitimacy by giving away the resource at stake.

This might sound implausible. But it should be emphasized that this concerns only the *illegitimacy* of the appropriation. Any *wrongdoing* involved in an illegitimate appropriation – as when the agent steals something from another person, or uses another person’s resources to appropriate new resources – stays with the *wrongdoer*. This means that any wrongdoing is *agent-bound*. It is thus the particular agent who performed the wrong action who has the duty to rectify the wrongdoing. However, as just said, the *illegitimacy* of an appropriation still stays with the resource: whoever is in possession of it does *not* own it.

The observation made in the beginning of this sub-section indicates that the ones who are now in possession of illegitimately appropriated resources are the present rich: They are not only counterfactual beneficiaries, but also the morally relevant inheritors of most resources ever appropriated. Perhaps not *every* single rich person is the possessor of illegitimate resources. But given the actual history of the world, and how resources are currently divided among people, it is plausible to think that there is at least a general correlation. Thus the obligation to rectify the illegitimate historical emissions lies with people among the present rich.

It might be objected here that the present rich have not themselves chosen to inherit anything at all. And given that no one can be morally responsible for something he never chooses, it could be argued that present rich people are not obligated to rectify the illegitimacies of their ancestors’ appropriations. But this argument is fruitless. Libertarianism’s history-sensitivity does not care much about whether people themselves chose to inherit something, or whether they just happened to inherited it. If my parents steal a car and give it to me (or I inherit it when they die), then my possession of the car is illegitimate. In other words, it is not within *my* ownership. Maybe, still, the principle of rectification does not apply to unchosen illegitimate possessions that the actual possessor *cannot* rectify. But, even so, it would not make much sense in the present context, since most present rich people can choose between keeping or abstaining from at least some of the material wealth they have inherited.

#### *Extra Emissions Reductions as Rectifications for Illegitimate Historical Emissions*

The corollary of the argument so far is that libertarianism implies a duty on those of us who have inherited illegitimately appropriated resources from the past to rectify these illegitimacies. A similar argument (though not based on purely libertarian grounds) has been made in a recent paper by Göran Duus-Otterström (2014). He argues that “[t]he currently existing people, whose holdings (of distributable resources) stem from uncompensated overuse of the atmospheric commons, have a

duty to take on extra burdens” (2014: 456). Though he says that he is doing this “in the abstract, leaving the implementation for a later time” (2014: 464-5), he hints that the duty in question involves “engaging in extra adaptation or extra mitigation” regarding climate change (2014: 465).

The remaining crucial question concerns *how* the rectifications in question should be made. As mentioned above, there are in principle two options here: to return the illegitimately appropriated resources back to the commons, or to compensate all those who were negatively affected by one’s illegitimate appropriations. In case an appropriation is illegitimate for violating constraints (i) as mentioned above (i.e., where the resource has been stolen or appropriated with the help of stolen resources), the latter option is the only one available. Interestingly, given the formulations of the libertarian provisos, this option is also in principle available in case an appropriation is illegitimate for violating constraint (ii) mentioned above (i.e., the appropriation violated a relevant proviso). To clarify, an agent may rectify a proviso-violation by way of paying compensation to those who are left with less than enough and as good (Lockean libertarianism), who have not consented to the appropriation (joint ownership left-libertarianism), who are left with less than an equally valuable share of the resources (equal share left-libertarianism), who are left with less than equal opportunities for well-being (equal opportunity left-libertarianism), or who are being made worse off (Nozickean right-libertarianism) because of one’s appropriation.

However, in the intergenerational case, compensation is certainly *unavailable* in practice. And this holds for rectifications of (i)-(ii) in general. Indeed, most people who were initially affected by past people’s historical emissions are already dead, for which reason they cannot be compensated at all. So, from this it follows that intergenerational rectifications of (i) are impossible *tout court*. Still, though, intergenerational rectifications of (ii) remain possible: This, as already mentioned, could be done by returning the illegitimately appropriated resources back to the commons.

But how could this be done *in concrete terms*? It would not make much sense that present people return any of the *artificial* resources – like roads, museums and computers – they now possess thanks to past illegitimate appropriations. Nonetheless, it would make sense that they return some of the *natural* resources from which their artificial ones were originally made. When it comes to those tokens of fossil fuels that have already been burned, it is clearly impossible to return those same tokens. But it is possible to restore forests for common use via replantation. And it is possible to restore the atmospheric absorptive capacity by reducing the greenhouse gases that are already in the atmosphere. By emptying the trash can, so to speak, one makes it available for others to use it all over again. And *this way* one can return it to the commons! Interestingly, given that forests function as carbon sinks, forest replantation will in this respect coincide with reduction of greenhouse gases from the atmosphere.

Given these concrete alternatives, and the unavailability of other rectificatory workarounds, this is what libertarianism requires of anyone who has inherited resources that were originally illegitimately appropriated. Exactly what (or how much)

this amounts to for present rich people will of course differ between individuals, depending partly on the amount of resources they have inherited, and partly on the degree to which these resources were originally illegitimately appropriated. As Edward Feser points out in regard to this complexity, we have to answer “the question of *exactly which* [people] here and now owe *exactly how much* of what they have to *exactly which* past injustices committed by *exactly which* ancestors” (2005: 79, emphasis in original). Answering this complex question will involve empirical tasks that I cannot undertake here. Disregarding the details, however, the arguments presented in this section provide further reasons for present rich people to reduce their emissions – that is, in addition to their already uninherited duties to eliminate or offset their own luxury emissions (as argued in chapter 3), and to terminate their illegitimate appropriations of climate-relevant resources (as argued in chapter 4).

### 7.3. Summary of the Chapter

In the first section of this chapter, I began by commenting on the few libertarian restrictions on human reproduction. I then moved on to explore whether our luxury individual emissions violate the rights also of people belonging to future generations. However, we saw that the libertarian individualist stance is vulnerable to the non-identity problem. Even if individuals’ activities might not in separation alter the identities of all future people, the very feature that makes it so would also invalidate most future people’s potential dissent to these activities. However, I argued that it is plausible that at least *some* future individuals (for instance, of people in the near future or of populations isolated from the rest of human civilization) will not have their identities altered by present people’s choices of action. Moreover, some other future people whose lives are not worth living will not have their dissent invalidated by the non-identity problem, even though their identities will be contingent upon the actions of present people. Both of these groups of future people will have valid complaints against the climate-unfriendly activities of the present generation. In addition, the Lockean and left-libertarian provisos were shown to avoid the non-identity problem on account of their focus on resources and opportunities (rather than particular people). They imply that present people should take the lives of future generations into account when considering how much of the climate-relevant resources to appropriate.

In the second section, I argued that libertarianism can deal with the problem of historical emissions to the extent present people’s wealth is inherited from the illegitimate appropriations of their predecessors. I also argued that this extent is quite significant, given the connection between the material wealth of the present rich, the previous industrialization in their respective countries and the excess emissions and resource-use involved in this industrialization. On the basis of this, libertarianism’s principle of rectification implies that present people have a duty to clean up the historical illegitimate emissions corresponding to their inherited material wealth.

Note that this argument tacitly concerns the responsibilities of *individual* agents. Would it be possible to take into account responsibilities of *collective* agents – such as states and corporations – the relevance of the reached conclusion would be reinforced. The problem of historical emissions might then even be entirely circumvented, since collective agents in general persist over longer periods of time than individual agents. Questions concerning collective action and shared moral wrongdoing are examined in the next chapter.



## 8. Collective Action and Shared Moral Wrongdoing

So far, we have been concerned mainly with libertarianism's verdicts for individuals' climate-relevant activities. This is natural since libertarianism, as we have seen, is an *individualist* position ascribing rights and duties basically to individual people. However, people often act together. Because of this, questions concerning collective action and shared moral wrongdoing arise. Since the major problems of climate change are in fact caused by our joint emissions and resource-usages, these questions appear to be highly relevant in the present context.

So, what could libertarianism say with regard to the collective actions in which individuals participate? For instance, what could be said in cases where corporations and governments act? Libertarians would be correct to point out that it does not follow from the mere fact that individuals sometimes do things collectively that these actions are fundamentally collective. This holds even in those cases where the joint action gives rise to effects that amount to more than the mereological sum of the effects of the separate individuals' contributions. Such synergy effects might be the motivator for people to act collectively, but they do not imply that the agency is irreducible to the individuals.

Indeed, libertarianism's individualist stance yields no moral relevance to any collective action *per se*. In case there is any morally relevant collective action at all, this is reducible to individuals' actions. Hence, there is no morally relevant collective action *over and above* the actions of the individual members of those collectives. Nevertheless, there is an interesting question concerning *individuals* participating in collective activities – especially whether individuals act impermissibly by participating in collective wrongdoing. In this chapter, I argue that libertarianism implies that individuals act impermissibly if they (i) agree to bear responsibility for, (ii) causally contribute to, or (iii) implicitly authorize, collective wrongdoings.<sup>129</sup>

### 8.1. Shared Wrongdoing in Virtue of Agreement

The cases of collective wrongdoing that are the easiest to explain from a libertarian position are those where the involved individuals have themselves come to some

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<sup>129</sup> For the sake of convenience, I use “group” and “collective” interchangeably in this chapter. Unless mentioned otherwise, I also use “collective action”, “joint action” and “group action” synonymously.

*agreement* with regard to the allocation of the responsibility for the outcomes of their collective acts. This is typically done in *strictly organized groups*, like business corporations, political parties, nongovernmental charities and other well-structured unities. What these organizations have in common is that they have adopted some kind of *liability scheme* – that is, an autonomous agreement among its members on how the responsibility is divided between them in case their organizations commit (however reducibly) wrongdoings.

This way of explanation is made available to libertarians primarily by the *transfer right* (discussed in chapter 2), which gives people the option to transfer rights and duties to consenting others. For instance, if you pay me an amount of money to assure you a new house in case it burns down, and if I consent to that, then I am responsible for providing you with a new house in case it burns down. Libertarianism thus implies that *I* act wrongly if I omit to do so, as I have then failed to fulfil the duties I am committed to via the agreed upon contract.

Still, we also find some *loosely organized groups* whose individual members have not agreed concerning any liability scheme, but whose activities we want to be capable of judging morally. First and foremost, there are collectives whose individual members explicitly and autonomously coordinate their intentions: They share goals; they make plans together; they adjust their acts to one another; and so on. These collectives also come fairly close to being autonomous agents *qua* collectives; in other words, irreducible to its individual members (yet that is here assumed to be of no moral relevance). Among these groups, we find school classes, criminal gangs, football teams, informal businesses, friends and families, etc. However, it is not possible to account for the wrongdoing of their individual members by reference to any liability agreements.

Moreover, we also find many *unorganized groups*, whose individual “members” have not in any reasonable way coordinated their intentions, but whose activities we want to be capable of judging morally too. Characteristic of these kinds of groups is that their individual participants do not explicitly share any goals, neither do they make plans together, nor do they adjust their acts to each other. Among these kinds of groups, we find the kind of collectives of people typically referred to as “the present rich”, “the world’s poor”, “future generations”, “gas-guzzler drivers” and so on. These groups are far from autonomous agents *per se*, and it is disputable as to what extent they are groups in any morally relevant sense. While it is clear that individual members of such “groups” bear a responsibility for their own separate activities, it is initially unclear whether they bear any responsibility with respect to the aggregate outcomes of these activities.

Walter Sinnott-Armstrong has famously argued that the fact that individual emitters happen to form an unorganized group frees them from individual moral responsibility for climate change. He argues that members of

[o]rchestras and political parties, for example, plan to do what they do and adjust their actions to other members of the group in order to achieve a common goal. Such groups can be held responsible for their joint acts, even when no individual

alone perform those acts. However, gas-guzzler drivers do not form this kind of group. Gas-guzzler drivers do not share goals, do not make plans together, and do not adjust their acts to each other (at least usually). (2010 [2006]: 297-8)

It seems clear to me that I am not sufficiently coordinated with, for instance, high-emitting academics for me and the other academics to count as an organized group. Hence, it seems, there is no shared wrongdoing between us.

As mentioned above, however, many people have the intuition that individuals do act wrongly when participating even in such unorganized collectives as “the emitters” or “the present rich”. In what follows, I shall explore to what extent this intuition could be explained with the assistance of libertarian resources. The only available explanations in this regard, I think, are by reference to causal contributions and implicit personal authorization. I discuss these possibilities in turn.

## 8.2. Shared Wrongdoing in Virtue of Causal Contribution

One of the most popular ways to account for individual wrongdoing in cases of collective action is by reference to the individuals’ respective *causal influence* on the outcome of the collective action. This way is open for libertarians as well. In accordance with this idea, individuals act impermissibly when they contribute causally to any rights-violating outcome stemming from activities of corporate businesses, governments, and the like.

One might think that the understanding of shared wrongdoing in virtue of causal contribution will provide different results depending on the specifics of the group – for instance, loosely organized or unorganized – performing the joint activity in question. At closer scrutiny, however, such differences are normatively irrelevant from a libertarian point of view. Given libertarianism’s stance on strict liability, it simply does not matter whether individuals have coordinated their intentions in any way, or whether they are even completely ignorant concerning the actions of other people. Rather, what matters is that the individual him- or herself gives rise to rights-violations by his or hers causal contribution to the activities of this collective.

In many cases, though, it is hard to determine a causal relation between the individual agent and the overall outcome. This is due to the fact that for most individuals partaking in joint activities (organized or not), their separate contributions are neither necessary, nor sufficient, for the outcomes of those activities. In other words, the performance of those activities (as well as their overall outcomes) are *overdetermined*: There are more causes present than necessary for the outcome. This means that whatever one individual does in those cases, the outcome is already imposed by the actions of other individuals. This seems to be true not least in the case of climate change: Whatever one individual does, climate change is (and will be) happening regardless.

In some cases, the issue of overdetermination regarding wrongdoing is nevertheless irrelevant according to libertarianism. Consider the following example for clari-

fication: You and I and a group of other people simultaneously shoot a person; this person dies immediately due to these shootings; and neither one of our individual shootings are necessary, nor sufficient, for that person's death (suppose that it takes three shots to kill him). Now, since each of our shootings still crosses that person's boundary, and since that person does not consent to any of our shootings, libertarianism implies that *all* of these shootings are wrong. This is so *even if* neither of them is necessary nor sufficient for the deadly outcome. Similarly, in the climate change case, what matters from a libertarian point of view is whether the acts of the individuals cross other people's boundaries without their consent. As we saw in chapter 3, individuals' luxury emissions do precisely that. In these cases, where even the separate contributions of the individual members of a group cause infringements to others, it is thus clear that the individual members act impermissibly when they contribute.

In other (and perhaps more interesting) cases, the issue regarding overdetermination is nonetheless highly relevant. This is true especially in cases where the actions of each individual member of the relevant collective do not cross any boundary *per se*, but where the joint actions of the group do that. To illustrate this, consider the following revision of the previous example: You and I and a group of other people all together *pull the trigger* of one and the same giant gun; this joint pulling of each and every one of us makes the gun fire off a bullet toward a person; and the person dies due to this shooting. Assume that neither of our individual actions is necessary, nor separately sufficient, for the shooting (or in effect for the person's death). In other words, neither of our individual actions would in isolation have fired the bullet (suppose that it takes at least three people to pull the giant trigger), nor in effect would they have killed the person. Moreover, none of our individual actions (pulling the trigger) crosses that person's boundary. Since only rights-violations are impermissible, and all rights-violations involve boundary-crossing, our individual actions in this case thus turn out to be permissible.

In order to see how this type of case is relevant in the climate-context, consider the following example. You and I and a group of other people run a coal company. Assume for the sake of argument that we have not come to any agreement on any liability scheme as to how the responsibility of the activities of the company should be divided between us (if that would have been done, then we would act wrongly in virtue of agreement, as explained in the previous section). However, we are the (only) members of the board of the company, and we have just decided to extract and burn an extra gigaton of coal for energy production. Assume that since the burning will violate people's rights (we may also assume that the extraction will violate the relevant proviso for external appropriation), this is an instance of collective wrongdoing. Although none of us will be involved in the actual extraction and burning of the coal, all of us are involved in the decision that it will be done. Hence we, considered as the board, are causally contributing (and even decisively so) to the extraction and burning of the coal. Still, since our decision was made on the basis of a majority rule (we may assume), none of our individual votes on the decision were necessary, nor sufficient, for the decision to be made. Also in this case, our individ-

ual votes do *not* cross any boundaries *per se*, which thus makes it appear as if we as individuals do not make any causal contribution to the outcome.

On the tentative assumption that individuals act impermissibly when participating in collective wrongdoings only when they contribute causally to the outcomes of the collective action, no individual acts impermissibly in the cases described. Hence they also lack an obligation not to make any such non-efficacious contributions: No individual alone violates anyone's rights by pulling the trigger or by voting for the coal-burning decision, and so they are each morally free to pull triggers of giant mass-murdering guns and run climate-unfriendly coal-businesses!

As this entails, there appears to be cases where separate individuals make no causal contribution to the outcome of the joint actions in which they take part, but where this outcome nonetheless involves infringements. As a consequence, it seems possible to set up businesses in ways that cause great harm to people but still guarantee that no individual participant makes any causal contribution, and thus acts permissibly when doing so. This sounds utterly implausible even from a libertarian point of view.

One could argue that this implausibility hinges on an outdated analysis of causation, or a misunderstanding of the relevant causal relationship between the choice of the individual agent and the joint outcome. According to Vallentyne, for instance,

the relevant causal connection is that the choice *increases the objective chance* that the outcome will occur, where objective chances are understood as objective probabilities in the sense of single case propensities. So understood, objective chances (or probabilities) are objective dispositions (or propensities) of the world to go a certain way, as determined by the laws of nature and the entire state of the world. (2008: 63)

As Vallentyne goes on to clarify, “an agent's choice, *c*, increases the chance of outcome, *o*, just in case, just prior to the choice (given the entire state of the world and the laws of nature), the objective chance of *o* given *c* is higher than the objective chance of *o* *given that she makes an autonomous choice (of some sort)*” (ibid.). This account has it that “...an agent is responsible for an outcome only to the extent that her choice increased the chance of the outcome” (2008: 64). It can thus explain shared wrongdoing, or “partial responsibility” in Vallentyne's (2008: 57) terminology: Given that a rights-violation occurs, an agent acts wrongly to the extent she acted in a way that increased the probability of this outcome occurring.

Given that an individual increases the probability of the shooting when pulling the giant trigger, and of burning the coal when voting for the decision that the coal be burned, Vallentyne's probabilistic account has it that the individual actually produces an effect that is sufficient to count as a boundary-crossing. Based on this, therefore, even the separate individuals would be causally responsible in the cases of the giant gun and the board-decision. In the climate case, even single members of various unorganized groups performing climate-relevant activities would act wrongly given that their activities increase the probability of climate change.

As this indicates, and as Vallentyne himself notes, “the chance-increasing conception of the causal condition is highly controversial” (2008: 63). For instance, it entails that responsibility is incompatible with causal determinism. Most noticeably, it is highly controversial as to whether there really are any objective propensities in the world, or how they – were they to exist – would be relevant in a practical context. If this cannot be maintained, then the probabilistic account cannot help explain how individuals act impermissibly when participating in collective wrongdoings of the types described here.

Also, the chance-increasing conception appears to imply that many of our actions are wrong due to the fact that they increase the probability of some rights-violations that are due to *other* people’s actions. For instance, by choosing not to hinder other people from emitting greenhouse gases, an individual increases the objective chance that climate change will occur. Hence, the probabilistic account implies that he is causally responsible for the outcome of those emissions (i.e., climate change). And so the non-aggression principle implies that this action is wrong. This implication is implausible, not least from a libertarian individualist standpoint.

Fortunately, this particular implication might be circumvented by reference to *the acts and omissions doctrine*, as explained in chapter 2. According to this doctrine, there is a normatively decisive difference between *doings* (i.e., active behavior) and *allowings* (i.e., passive behavior). Only the former count as actions, and the latter merely count as omissions. This means that *not* hindering someone else’s rights-violation, due to merely omitting to act, is *not* wrong – despite the fact that the omission increases the probability of that rights-violation.

Still, the probabilistic account then implies that it is morally superior not to act at all. Because whenever one does something – however benevolently and charitably – one will increase the probability of at least some wrongdoings of others. For instance, by giving a lecture on how to act rightly on according to libertarianism, I will certainly increase the probabilities of some people’s wrongdoings. The fact that I might decrease the probability of others’ wrongdoings *overall* does not change this fact. Remember, on libertarianism, one is never allowed to do something that violates rights, even if doing so minimizes rights-violations overall. This appears to pose a problem for the probabilistic account.

However, this essay is not the right place to determine which analysis of (morally relevant) causation is correct or most coherent with a libertarian framework. Hence, I shall not say more regarding this issue. Whichever account of causation the libertarian endorses, I think she should say that an individual acts impermissibly when contributing causally to a collective wrongdoing only if she has had an opportunity to act so as not to contribute causally to this activity. And this holds even if the individual cannot avoid the very outcome of that activity.

However, there seems to be cases where individuals participating in group activities do *not at all* contribute causally to the collective wrongdoing, but where we still would want to say that their individual participation makes them morally complicit to these activities. For instance, stakeholders who are mere “sleeping partners” of companies do not seem to contribute causally to the acts of these companies. Like-

wise, consumers do not seem to contribute causally to the production of the particular goods and services they consume. For instance, if people buy electricity produced from non-renewable resources, they do not causally contribute to the extraction of these particular resources. And, disregarding the probabilistic account of causal responsibility, the cases concerning the giant trigger and the coal-burning decision, respectively, are additional examples of this. In the next section, however, I argue that non-causal authorization is one feature that can help the libertarian explain the shared moral wrongdoing that is going on in these cases.

### 8.3. Shared Wrongdoing in Virtue of Implicit Authorization

The general idea of *moral authorization* is that agents shoulder responsibility for an outcome, stemming from a joint activity, by virtue of their personal ratification of the action that leads to this outcome. This basis for shared moral wrongdoing does not require that the individual has any causal influence on the outcomes of joint actions, but rather that the joint actions as such bear the authorship, hallmark or stamp of the person.

Surely, the notion of non-causal authorization is controversial. According to the view of Matthew Braham and Martin van Hees, for instance, “we cannot say that an outcome bears the stamp of ‘authorship’ of a person if the person played no causal role in bringing it about” (2012: 606). Not least from a libertarian perspective, endorsing strict liability, it seems that responsibility in terms of non-causal authorization is ruled out already in advance.

This, however, is mistaken. Libertarianism indeed allows agents to be responsible for outcomes for which they themselves accepted to bear a responsibility, yet they have not themselves causally contributed to those outcomes. This was made clear in section 8.1. There we saw that individuals can share moral responsibility with others in virtue of autonomous agreements. This possibility is granted by libertarianism’s transfer right (discussed in chapter 2), which gives people the option to transfer rights and duties to consenting others. It could also explain shared wrongdoing in cases of strictly organized groups – for instance, political parties, NGOs and business corporations – that have explicitly adopted a liability scheme.

In this section, I shall try to expand this explanation so as to also cover cases where people have not explicitly authorized any organized group activity, and who are thus not targeted in their liability schemes, but who are shareholders or consumers of their products. I do so by employing the notion of *implicit* authorization, building on the role of consent, the labor-mixing theory of appropriation and the transfer right. I shall first explain what implicit authorization means in general.

For one thing, an agent implicitly authorizes an action only if she *interacts* with the other agent(s) who performs the action. Plausibly, an individual cannot even be partially responsible for an activity if she does not at all interact with the other individuals whose acts jointly amount to this activity. It is not clear exactly what is required for interaction in this regard. Perhaps it suffices that I *say* that I agree to what

a company does, for instance, for me to authorize what that company does. In any case, one does *not* authorize an activity merely by not objecting to that activity.

Moreover, an agent's interaction must be *autonomous* (involving both voluntariness and awareness). If an agent is forced to interact with others, or if she is unavoidably ignorant that she is interacting with others, this interaction cannot be taken to be any kind of authorization of their actions. This is due to the same reason that autonomy is a condition for moral agency in the first place.

Of course, an agent can authorize an activity without intending the *outcome* of that activity. What matters is simply that her interaction as such is intentional. Whether the effects of her interactions are intentional is, just as when it comes to agency in general, beside the point. However, if an individual interacts with others with the intention of hindering the outcomes of their joint activity, then she does *not* authorize their activities. In other words, counter-intention blocks authorization, meaning that authorization of a joint activity requires that the agent do *not oppose* to this activity.

This is a bit problematic, though. What if somebody co-operatively interacts with others at the same time as she explicitly objects to what they are doing? Think of a person who does not hesitate to eat meat, for example, but who objects to the climate-unfriendly effects of the production of that meat. Does such a person withdraw her authorization to the meat industry merely by her explicit objection to that industry? If so, that would then seem to make it possible for people to participate in nasty joint ventures and still be morally faultless as long as they object somehow explicitly to those ventures. As this suggests, a person's objection to a joint activity of others can justify her interacting with those others only if her interaction is *non-cooperative* – that is, in a spirit of non-compliance. Indeed, it seems plausible that implicit authorization can sometimes override explicit (verbal) anti-authorization.<sup>130</sup>

Taken together, these conditions imply that if an individual autonomously interacts with an activity of others without opposing this activity, then this individual implicitly authorizes this activity. In turn, given the notion of shared moral wrongdoing in terms of implicit authorization, such an individual acts impermissibly if this activity involves rights-violations. In other words, she thereby shoulders the moral responsibility for the wrongdoings that consequently take place. For example, if I autonomously consume products from a company whose actions I know violate people's rights, and I do nothing to oppose them, then I authorize these actions. Thereby I also shoulder the moral responsibility for these actions. Or so the idea goes.

Now, the question is whether this conception of implicit authorization coheres with the libertarian core assumptions. I believe that in particular two traits of libertarianism can provide an answer here: (i) the role of consent regarding permissibility of actions, and (ii) the labor-mixing theory regarding external appropriation. The idea is that when an individual autonomously interacts with an activity, she mixes

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<sup>130</sup> In the next chapter, I argue similarly that implicit consent can sometimes override explicit consent.



her labor with that activity, and by not opposing this activity, she implicitly consents to it. In that way, the responsibility for that action is transferred to her.

When it comes to the role of consent in the libertarian tradition, we remember from chapter 2 that a person may open up for other people to cross her boundary, by giving others the permission to do so. We also saw that such permission can be given implicitly, by doing something oneself (e.g., smoking in the vicinity of others) or by autonomously participating in a certain context (e.g., playing a game of football). It is precisely this kind of implicit consent – via autonomous participation – that seems to make sense also when it comes to personal authorization of joint activities. If an individual's autonomous participation in a context can be taken for her permission of the actions of others, it also seems that an individual's autonomous participation in the activities of others can be taken for her authorization of these activities. If so, it seems that the individual shoulders the correlating duties of rectification in case things go wrong.

Perhaps one could argue that more is required for the authorization of other people's actions than is required for mere permission of the effects of other people's actions on oneself. If so, however, the labor-mixing theory comes to the rescue. Indeed, it appears that whatever is supposed to transfer from the agent as a self-owner to the external resources with which she mixes her labor also seems to transfer from the agent to the actions of the collective in which she participates. And this holds regardless of whether the agent manages to make any causal contribution to the outcome of those actions. In that sense, the gist of the libertarian labor-mixing theory coheres well with the gist of implicit authorization: Cases of collective action can be seen as cases of multi-agent labor-mixings! For illustration: If the labor-mixing theory implies that a quota of the atmospheric absorptive capacity bears the authorship, hallmark or stamp of the person whose emissions it absorbs, then the labor-mixing theory reasonably implies that a collective action bears the authorship, hallmark or stamp of any person who autonomously (and without opposition) interacts with people performing this action.

In order for an individual to avoid wrongdoing in this sense, then, she must withdraw her authorization of such activities or at least object to them. Consequently, she must not interact with the relevant activities. Unless she objects to them in a non-cooperative way, she will otherwise be mixing her labor with theirs and implicitly consent to shoulder the rectificatory duties that result from their activities. When combined with the results of the previous chapters, this account suggests that libertarianism not only requires that people reduce their own emissions, but also that they abstain from taking advantage of the wealth that is due to the wrongful production in the fossil-fuel based markets. If I am right about this, libertarianism recommends that individuals boycott corporations whose climate-relevant activities (or other activities for that matter) violate people's rights. Note that this is an additional recommendation to the one (spelled out in chapter 4 and further elaborated in chapter 7) that the possession of a thing is illegitimate if the production of that thing involves any violation of some relevant proviso.

The upshot of this section is that individuals act impermissibly if they implicitly authorize any wrongful collective activity by taking part in them in any way that amounts to implicit acceptance of sharing responsibility for those activities. As a consequence, individual “members” of any wrongdoing “collective” are morally obliged to terminate their own “membership” of such “collectives”.

#### 8.4. Concluding the Chapter

In this chapter, I have argued that libertarianism yields an individual’s participation in collective wrongdoings impermissible whenever the individual (i) agrees to bear responsibility for such activities, (ii) contributes causally to the outcomes of these activities, or (iii) implicitly authorizes these activities. This upshot should be of interest for several reasons. First, it yields some general libertarian restrictions on how people may vote, eat, consume, live, etc. Second, it yields individuals responsible for climate change even under a significantly weakened notion of boundary-crossing (as compared to the one defended in chapter 3). Third, it yields libertarianism means for judging individual acts wrong independently of their causal efficaciousness to climate change. Fourth, it yields external parties the permissibility to intervene in order to stop even joint activities that violate rights. This leads us to the role of governments, to be discussed next.

## 9. Governmental Climate Responses

Traditionally, libertarians have raised some heavy criticism of the state.<sup>131</sup> The basic idea is that solutions to problems must come freely from the people themselves, and not coercively from their governments. For this reason, not much has been said with regard to libertarianism's implications for governmental climate responses.<sup>132</sup> In combination with the current opinion that climate change can only be prevented through governmental action, one might therefore believe that libertarianism can offer no argument for mitigating climate change. In this chapter, I question this idea by exploring libertarianism's implications for governmental climate action more closely. I shall start by commenting on the libertarian critique of the state, and argue that there is some room within the libertarian view for governmental intervention in general. After that, I investigate to what extent governments are allowed to intervene when it comes to people's climate-relevant activities in particular. I argue that libertarianism in fact allows for some governmental activities that may in effect mitigate climate change.

### 9.1. The Libertarian Room for Governmental Interventions in General

One of the foremost motives for the libertarian criticism of state interventions – and for an acceptance of at most a minimal state – is that many presently existing states have a dubious history. To quote Walter Block, “[i]n earlier days, it [i.e. the state] attacked peaceful villages, engaged in theft, murder and rapine, and then stole back to its highland hangout” (2004: 127). According to Murray Rothbard's similar description, “[t]he State has never been created by a 'social contract'; it has always been born in conquest and exploitation” (2009: 16). On the basis of such considerations, it has been argued that the states' present existence and activities are morally illegitimate.

This, however, is a bit complicated. Given the non-identity problem, as explained in section 7.1., many presently existing people would not even have existed had their respective states not existed and done what they actually did. And, if the state were to be considered illegitimate due to historical wrongdoings, then present peoples'

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<sup>131</sup> For an overview of this critique, see Brennan (2012).

<sup>132</sup> C.f. Adler (2009: 297): “...libertarian thinkers [...] typically argue that the best response to the risk of climate change is to do little or nothing.”

property would plausibly be illegitimate too, as the state illegitimacies would plausibly have contaminated the private appropriations made during these times. This is along the lines of the argument in section 7.2. Since many present people are also quite well off – or at least not worse off than they would have been had the state not existed – it could be argued that they also for this reason have no valid complaints against the existence of their respective states.

Besides this, it is plausible to think that states could act permissibly *even if* their very existence was due to wrongful actions in the past. This is for the similar reason that a person could act permissibly even if her very existence was due to wrongful actions in the past (e.g., she was the result of a rape). One might think that states generally commit acts that are impermissible according to libertarianism. Rothbard, for instance, claims that “the State is that organization in society which attempts to maintain a monopoly of the use of *force* and *violence* in a given territorial area; in particular, it is the only organization in society that obtains its revenue not by voluntary contribution or payment for services rendered but by *coercion*” (2009: 11, my emphases). In a similar vein, Block claims that the state “is a predatory gang” (2004: 127). Jan Narveson joins in here, saying that “[i]ndeed, libertarians tends to regards [*sic*] governments as equivalent to gangs of thieves” (2013: 380). If we buy these descriptions, then the state is coercive in nature, and therefore violates the non-aggression principle.

In relation to this, it should be noted that even if states presently conduct *some* wrongful actions, it does not follow that *all* state actions are wrong.<sup>133</sup> Any state may in practice conduct some rightful acts – at the very least in order to hinder others from violating rights. Therefore, there is nothing *intrinsically* repugnant about states and state activity from a libertarian perspective. It all depends on exactly *how* particular states come about and *what* they do.

Some might nonetheless argue that the only legitimate act for an illegitimate state is to dissolve itself. But, that still does not block state power from a general point of view. Even though every state that exists today would have come about through illegitimate procedures (e.g., involving violence and coercion), it is not the case that states *must* originate this way: Indeed, forthcoming states could be constituted in legitimate ways. In fact, the history of actual states may be irrelevant for the legitimization of future states. Interestingly, for this reason, libertarianism in principle allows for any supra-individual agency – even a supra-state (e.g., a world) government. For the sake of relevancy, I shall henceforth focus on state (i.e., national) and supra-state (i.e., international or supranational) governance. For the sake of simplicity, I henceforth use “government” and “state” interchangeably for any related supra-individual agency that is consistent with libertarianism.

The rationale behind the role of governments within the libertarian tradition becomes salient once we consider the enforcement right, as brought up in chapter 2 and discussed more thoroughly in chapter 6. This right not only opens up for self-defense, but also for *other-defense*. That is, it allows for a third party to step in when

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<sup>133</sup> See Nagel (1975: 138-9) for a similar observation.

people violate other people's rights. This was noticed also in chapter 4 and 8. Although libertarianism does not *prescribe* any party to intervene for the sake of protecting other people's rights, it does *allow* any party to do so.<sup>134</sup> And a state could be that party. As A. John Simmons puts this idea, "since all such a minimal state does is enforce citizens' preexisting natural rights and obligations, there can be no moral objections to its operations or demands" (2005: 336). Still it is true, as Eric Mack points out, that "[t]he only morally permissible coercion is the counter-coercive suppression of coercion" (1996a: 41).

Of course, libertarianism would allow for more unrestricted governmental interventions as long as those are, as argued by Peter Vallentyne (2007a: 192), "carried out in accordance with a consensual agreement...". However, to quote Simmons (2005: 352-3), the libertarian consent theory in this context "...maintains that genuine, nondefective consent is both necessary and sufficient for political obligation and legitimacy". From this, we may infer two claims. First, if individuals consent to the implementation of certain (say, fossil-fuel restricting) climate policies, then governments are permitted to implement such policies according to libertarianism. Second, if individuals consent to certain decision procedures, for instance giving the governments authority in the domain of climatic and environmental decisions, then governments would even be allowed to implement such climate policies even if people did not like them.

Although unanimous consent of the first kind is unobtainable at a global level, it might be obtainable at more local levels. For example, perhaps all citizens of Stockholm would agree to carbon reductive congestion taxes. If not, perhaps all students and employees at Stockholm University could agree to carbon reductive energy savings. And if that would not work, perhaps at least all members of the Department of Philosophy at Stockholm University could agree to reduce their department-related emissions (from travelling and printing and so on). If so, it would be completely unproblematic from a libertarian perspective to adopt a rule to such an effect. However, the limited domains where consensus among all concerned parties can be found, are those domains where governmental intervention is not an issue.

There is a general debate among political philosophers whether people can be said to consent implicitly in the second way, to more than mere rights-protection from their governments. One idea is that when people participate in society and take advantage of the benefits it provides, they implicitly consent to the burdens that come part and parcel with those benefits. In other words, they are thereby supposed to consent in general to the constitution of the state, its decision-making rules, the rules decided there upon and how changes in the constitution can be made. One could say that they thus transfer some of their rights to the state.

Is this true, or may people cherry-pick as they please, without the cherries being part and parcel of compliance to the state? Nozick persuasively argues that being a beneficiary of society does not entail any rights on part of society. He says:

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<sup>134</sup> See, for instance, Narveson (2013: 386).

One cannot, whatever one's purposes, just act so as to give people benefits and then demand (or seize) payment. Nor can a group of persons do this. If you may not charge and collect for benefits you bestow without prior agreement, you certainly may not do so for benefits whose bestowal costs you nothing, and most certainly people need not repay you for costless-to-provide benefits which yet *others* provided them. So the fact that we partially are "social products" in that we benefit from current patterns and forms created by the multitudinous actions of a long string of long-forgotten people, forms which include institutions, ways of doing things, and language [...], does not create in us a general floating debt which the current society can collect and use as it will. (1974: 95)

In his book, *The Problem of Political Authority* (2013), libertarian Michael Huemer argues in a similar vein that people in fact do *not* implicitly consent to their governments in any relevant way. His argument builds on the following assumptions regarding the validity of such consent:

- (1) valid consent requires a reasonable way of opting out;
- (2) explicit dissent trumps alleged implicit consent;
- (3) an action can be taken as communicating agreement only if the agent believed that if he did not take the action, the agreement would not have been imposed on him;
- (4) contractual obligation is mutual and conditional. (2013: vii)

These conditions deserve some clarification. The requirement of (1) is that if you do not have any reasonable alternatives to doing what you do – that is, to continue to participate in your society – then your participation cannot be seen as any form of consent to your government. This condition could be questioned. First, one might argue that if you accept the government and its laws and powers, then you consent to it whether or not you could actually opt out. Second, one might question whether people do not actually have the option of opting out of their respective societies. Many actual states allow their citizens to take their belongings and emigrate to another country. If I want to get rid of my government (in Sweden), for instance, I am free to move somewhere else. Of course, there might not be a place exactly the way I like it to be, but that is beside the point. The Swedish state – as any other state – has no positive duty to *provide* me with any alternative I like. However, if I want to get rid of *any* state worth its name, I could move to some stateless area – say in Somalia, Syria or international waters – where there is really no such governmental intervention at all. For these reasons, condition (1) does not suffice to disqualify people's participation in society as valid implicit consent to their governments (at least for people who do not live in countries, like North Korea, that do not permit them to emigrate).

Condition (2) assumes that people's explicit dissent has priority over their implicit consent. This assumption is controversial. If I voluntarily walk naked into a classroom full of students, for instance, then it seems that I give my implicit consent to

being looked at by these students, *even if* I have explicitly dissented to being looked at in such a situation. Likewise, if someone autonomously smokes near others while, at the same time as she verbally objects to others smoking near her, then that clearly seems to undermine her verbal objection.<sup>135</sup> For this reason, people's mere explicit objections to their society cannot always be seen as invalidating their implicit consent to their society.

Turning to (3), then, its core idea is that just because you do *not* do anything actively to object to a situation, your omission in question cannot be taken for implicit consent to that situation. And the reason for this is that, with regard to the state, things would not really have been different had you acted otherwise. Although this condition bears some intuitive plausibility, it could nevertheless be questioned. First of all, it does not seem completely unreasonable to say that people can actually make changes in society. They can engage in political parties, or NGOs, with the purpose of making such changes. And they can, in democratic societies at least, vote for the political parties they think could make their society at least closer to their ideal society. Moreover, they could still choose to opt out in the sense described under (1) above. Therefore, condition (3) too does not disqualify people's participation in society as being valid implicit consent to their governments.

The gist of (4), finally, is that we always, more or less, consent to things *conditional* on some other things being the case. And if those things change, then our own consent is not valid anymore. In the case of governments, the idea is that states change laws and other societal circumstances all the time, for which reason people would be open to leave the social contract *even if* they had entered it. Even if this would be plausible, the argument raised against (1) is also effective against (4). Hence, it cannot establish the claim that individuals participating in society does not count as implicit consent to the governments of their societies.

Taken together, these objections suggest that Huemer fails to show that people – on the basis of conditions (1)–(4) – do not implicitly consent to their governments. Hence, it might also seem that libertarianism allows for at least *some* governmental climate responses that go beyond those that merely consist of protecting people's rights. However, there are perhaps still some individuals who manage to oppose their governments in ways that imply that they do *not* implicitly consent to more than rights-protecting governmental interventions (in line with the arguments of chapter 8, regarding personal authorization of collective wrongdoings). In what follows, I shall therefore investigate what libertarianism allows *regardless* of whether people can be taken to consent to the actions of their governments. I argue that the conclusions revealed in the previous chapters motivate some rather substantial governmental climate responses in the name of libertarianism.

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<sup>135</sup> See Thomson (1975) for an argument to this effect. Note also that if we deny condition (2), the most troublesome part of the problem raised by the various forms of consent/dissent from crazy people, mentioned in chapter 2 and 3, may thus be circumvented: Their explicit consent/dissent is frequently overridden by their implicit consent/dissent.

## 9.2. Governmental Interventions against Climate-Relevant Activities

Forceful intervention from a government to which the affected people have not consented is not allowed according to libertarianism – *even if* the intervention is undertaken to make people better off. To defend individuals from doing things that are disadvantageous to themselves is simply wrong according to libertarianism (at least in so far as all involved parties consent freely to those things).<sup>136</sup> Thus governments act *immorally* when they forbid things like prostitution, guns or drugs, despite the fact that they lead to very negative societal and individual consequences. For a similar reason, libertarianism does not allow for governmental climate actions just for the sake of preventing dangerous climate change. The task in this section is to investigate what governments may nevertheless do for the sake of preventing wrongful emissions of greenhouse gases and illegitimate appropriations of climate relevant resources.

When it comes to emitting activities, to start with, governmental interventions are permitted to stop them only to the extent that they violate people's rights. Since it was shown in chapter 3 that our non-offset luxury emissions violate people's rights, governments are permitted to avert those emissions. This holds both for individualist and collectivist readings of "our" (i.e., for both individual and joint activities). In the case of individual emitting activities, the practical implication of this permission is quite clear. For instance, governments are allowed to put carbon taxes on any emission that passes the luxury threshold, or even completely forbid such emissions by law. This may raise practical issues concerning how to measure emissions, and which actions to consider luxury emissions. As argued in section 4.5., however, one way of dealing with this would be to adopt the *Equal per Capita View*, according to which each individual initially has an equal right to emit greenhouse gases. If we approximate that this right amounts to 1 ton of greenhouse gases ("carbon dioxide equivalents") annually per person, then we could say that everything above that amount would count as luxury and hence be targeted in the taxation (or prohibition) scheme.

In the case of joint climate-relevant activities, however, the practical implications are more intricate. Might the government do anything directly to *groups* of people in order for them to change their behavior? Given that groups of people do not have any rights *as such*, governments cannot violate any group rights. Still, any *coercive* action against a group will certainly violate the rights of its individual members. Even if the governmental intervention against the group was conducted in defense of some people's rights, libertarianism does not permit any defensive actions that violate the rights of any innocent "bystander" (i.e., a person who is not himself involved in any aggression). This is along the lines of the arguments in chapter 6.

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<sup>136</sup> C.f. Railton (1985: 216): "Libertarians tell us that we cannot force things upon people even when they themselves are the beneficiaries".



Nonetheless, as shown in chapter 8, individuals act impermissibly whenever they (i) agree to bear responsibility for wrongful group activities, (ii) contribute causally to the outcomes of such activities, or (iii) implicitly authorize these activities. This in effect permits governments to hinder individuals from participating in such activities. This also allows governments to act directly against collectives, as long as doing so does not violate the rights of anyone who does not participate in such activities.

Of course, governments may also *non-coercively* change the behavior of a group – even if that would affect non-participating members of those groups. Indeed, carrots are permitted even if sticks are not. To the extent governments can legitimately appropriate or produce resources, they are permitted to offer these resources as benefits to people for choosing climate-friendly products. Governments may thus offer some suitable focal point – in other words, a salient solution toward which the individuals will jointly strive because they find it somehow natural, special or relevant to them – in order to make individuals freely coordinate their intentions away from their actual climate-unfriendly behavior. The only legitimate way for governments to do so is by providing *incentives* for people to make choices required in this respect.<sup>137</sup> This is obviously not without problems, and I will return to this shortly.

Some might want to argue that coercive governmental interventions against collective wrongdoings would be permissible even if some innocent (i.e., non-participating) people's rights are infringed, on the precondition that suitable compensation is paid to all those whose rights would thus be infringed. However, as argued in chapter 3, and revisited in chapter 5, compensation cannot function as a justifier for infringement in this sense. As argued by Steven Wall, following Peter Railton,

...the interfere-then-compensate policy is pretty clearly in tension with a strong defense of self-ownership rights. For if X interferes with Y's person and compensates Y for doing so, then *even if the compensation paid were fully adequate*, X would have failed to respect Y's right to decide this matter himself. In effect, X would have preempted Y's control over his own person. (2009: 407)

Also, as we have seen repeatedly above, the compensation that would be required in this justificatory respect – were it possible at all – would nevertheless be very problematic from a practical point of view.

Still, compensation could play a proactive role insofar as everyone affected agreed to such a compensatory scheme *prior* to its implementation. For, if that were the case, the compensation would function not as a justifier for infringement, but as a means for obtaining consent from those whose boundaries would be crossed by the ensuing governmental climate actions. In this way, libertarianism would open up for governmental intervention directly for the sake of preventing climate change.

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<sup>137</sup> See Vallentyne (2007a: 194).

Compensation is also relevant to the question of governmental intervention in another respect. A short and clarifying example as to why is the following: If you steal my computer, then the government is allowed to take the computer plus compensation and give it back to me. In connection to climate change, libertarianism similarly allows for governments to conduct redistributions in order to correct for illegitimate appropriations of climate-relevant resources.

When it comes to this redistributive role, however, different versions of libertarianism – as spelled out in chapter 4 – yield different implications. Left-libertarianism, to begin with, permits governmental redistributions of resources whenever people have appropriated resources without fulfilling their correlating equality-promoting duties; joint-ownership left-libertarianism allows governments to redistribute any nonconsensual appropriation; equal share left-libertarianism permits governments to intervene in case people have appropriated more than their equal per capita share; and equal opportunity left-libertarianism allows governments to redistribute resources where people have taken more than needed for them to attain an equal opportunity for well-being. To quote Vallentyne, these theories jointly allow governments to “redistribute resources by taking from those who own natural resources but have not fully discharged their equality-promoting duties relative to the competitive rent owed for the rights they hold” (2007a: 201). In practice, this “rent” could be collected through a tax system for resource use. Given that taxes generally tend to lower consumption of the products being taxed, this could have emission-reducing effects (if appropriately worked out). A somewhat similar recommendation could be provided by Lockean libertarianism in cases where appropriators fail to leave enough and as good left for others.

Given the arguments of chapter 4, it would seem that the tax for use of natural (including climate-relevant) resources would be a *one-time* payment for external appropriation. However, the provisos could be understood as allowing even for *on-going* payments. Vallentyne explains this as follows:

[t]he property rights initially obtained by appropriation are (unlike those of self-ownership) conditional on the on-going satisfaction of the proviso. Thus, it is not enough initially to leave enough and as good for others in the relevant sense. If circumstances change (e.g., population growth, natural disaster), what was compatible with enough and as good may cease to be so, and thus require greater, or less, compensation. Thus, even if no compensation to others was initially owed, some compensation may be owed at a later date. On this model, compensation is a periodic payment rather than a single payment at the time of initial appropriation. (2013: 5)<sup>138</sup>

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<sup>138</sup> C.f. Nozick (1974: 179): “If my appropriating all of a certain substance violates the Lockean proviso, then so does my appropriating some and purchasing all the rest from others who obtained it without otherwise violating the Lockean proviso.”

When it comes to right-libertarianism, however, people are allowed to appropriate climate-relevant resources without fulfilling any equality-promoting duties. Still, remember that Nozickean right-libertarianism endorses a no-worse-off condition, and hence allows for governmental interventions wherever appropriators leave others in a worse situation than if the appropriation had not taken place. In common with all forms of libertarianism, including radical right-libertarianism, it also implies that appropriations of resources are impermissible if they involve rights-violations of any sort. Since we have already considered some empirical facts suggesting that some rights are violated in such cases, all versions of libertarianism permit governments to make the interventions and redistributions needed to correct for those rights-violations already made, as well as to hinder further rights-violations from taking place (insofar as this would not in itself involve rights-violations).

In any case, no version of libertarianism allows for governmental regulations of climate-relevant resources that are neither impermissibly nor illegitimately appropriated – that is, where neither rights-violations nor proviso-violations are involved. This means that libertarianism does not allow any coercive expropriation in order to place climate-relevant resources under governmental regulation. Even if such expropriation would be a means for solving the climate problem, it does not alter libertarianism's verdict. In fact, no more, and no unconditionally positive, climate action may be undertaken.

Given all of this, it seems as if the only further possible way for governments to influence individuals and collectives toward climate-friendly actions – beyond what follows directly from people's own duties not to violate other people's rights – is to provide incentives for such actions. They could, for instance, offer subsidies for climate-friendly choices. This, as we saw above, is also the case regarding the possibilities for governments to change the behaviors of collectives where innocent bystanders are involved.

One ensuing practical problem related to this alternative concerns how the government could finance the needed subsidies. We saw above that left-libertarianism is open to financing via taxes on overuse of external resources relevant to the respective provisos. Something similar could perhaps be worked out from the perspective of a Nozickean proviso. From a radical right-libertarian view, endorsing no proviso, any such rationale for taxation is unavailable. Notwithstanding this lack of rationale, we remember from the end of chapter 3 that all forms of libertarianism are open to, and even require, that people pay the *external costs* of their emitting activities. Since luxury emissions indeed have such externalities, also radical right-libertarianism permits governments to levy an appropriate carbon tax in order to assure that the internalization takes place.

Besides this, voluntary payments from individuals would of course be a legitimate source of income, although this alone is unlikely to suffice. Further financing could also be possible to the extent governments were permitted to issue fines as *penalties* for people's rights-violations. This possibility is observed by Nozick:

We should note the interesting possibility that contemporary governments might make penalties (in addition to compensation) monetary, and use them to finance various government activities. Perhaps some resources left to spend would be yielded by the retributive penalties in addition to compensation, and by the extra penalties needed to deter because of less than certain apprehension. (1974: 62, n.)

Sure, retributive penalties in this respect would be a form of punishment. And it is not clear that libertarianism allows for such punishment. However, Vallentyne and van der Vossen (2014: 16) claim that “[m]any [libertarian positions] would allow the use of force for retributive punishment...”. And Block (2004: 129) gives a proposal for a libertarian theory of punishment, which “calls for two teeth for a tooth, plus costs of capture and a premium for scaring”. He clarifies this using the following example:

Suppose I steal a TV set from you. Surely, the first thing that should occur when I am captured is that I be forced to return to you my ill-gotten gains. So, based on the first of two “teeth,” I must return this appliance to you. But this is hardly enough. Merely returning the TV to you its rightful owner is certainly no punishment to me the criminal. All I have been forced to do is not give up my own TV to you, but to return *yours* to you. Thus enters the second tooth: what I did (tried to do) to you should instead be done to me. I took your TV set; therefore, as punishment, you should be able to get mine (or some monetary equivalent). This is the second tooth. (2004: 129)

This view, however, is controversial. Whether there is any room for punishment (governmental or other) within a libertarian framework is, to the best of my knowledge, an unsettled issue. It is also one that requires more space than provided in this dissertation.

### 9.3. Concluding the Chapter

This chapter began by defending the idea that libertarianism lends at least some general room for governmental (and other supra-individual) interventions. It then moved on to argue that, although governments may not prohibit agents from conducting climate-relevant activities for their own sake, governments may do so in case those activities violate other people’s rights. Governments are also permitted to intervene in order to make rectifications in cases where wrongful activities have already taken place, and in order to redistribute resources that have been illegitimately appropriated. Although no such governmental prohibitions, rectifications or redistributions would aim directly at mitigating climate change, they would all in essence be climate-friendly.

## 10. Conclusions of the Dissertation

My aim in this dissertation has been to investigate libertarianism's implications in connection to climate change. In this concluding chapter, I first summarize the upshots of the previous chapters and then comment on the implications of these upshots for the plausibility of the libertarian moral framework.

### 10.1. Summary

In chapter 1, I spelled out the scientific background of climate change, the ethical problems it raises and the applicability of the libertarian moral theory with regard to these problems. The motivation to investigate libertarianism's implications for climate change was mainly twofold: (i) it is quite rarely discussed in the climate ethical debate; and (ii) when discussed, it is typically presumed to recommend business as usual. In fact, I also think that (i) and (ii) contribute to current political disagreements on what the world community should do concerning climate change. My practical ambition in this dissertation has been to put philosophy at work to make a change in this regard.

In chapter 2, I explained the basics of libertarianism. I first spelled out the non-aggression principle (according to which an act is permissible if, and only if, it does not violate anyone's rights). I then clarified libertarianism's various strands that are of importance for understanding this principle: the self-ownership thesis, the theory of external appropriation, the analysis of ownership in terms of a specified set of negative rights, the notion of moral agency, the acts and omission doctrine, the role and meaning of infringement, potential justifiers for infringements, and the principle of rectification.

In chapter 3, I scrutinized libertarianism's implications regarding our emissions. I argued that our individual emissions cross people's boundaries without their consent. Even if people do not dissent to those emissions because of their harm (since our individual emissions are miniscule and imperceptible), some people dissent to them on account of their contributions to accumulative climatic effects. Since all people emit for the sake of subsistence, however, they implicitly consent to the corresponding subsistence emissions of others. Still, though, not everyone emits luxuriously (i.e., more than subsistence emissions), and some object explicitly to the luxury emissions of others, which means that luxury emissions amount to infringements (i.e., crossing of other people's boundaries without their consent). Since compensation was shown to be practically unavailable, and since most luxury emitters do not

offset their emissions completely, I concluded that our luxury emissions are impermissible according to libertarianism.

In chapter 4, I looked at our appropriations of climate-relevant resources (fossil fuels, lands, forests and atmospheric absorptive capacity). In doing so, I had to distinguish between different versions of left- and right-libertarianism, respectively. They were shown to restrict many of our appropriations of such resources, although to different extents and for different reasons. Left-libertarian views implied stronger restrictions in virtue of their egalitarian provisos, whereas right-libertarian views implied weaker restrictions mainly in virtue of the non-aggression principle.

In chapter 5, I undertook an investigation regarding risk-exposures. I argued that the mere risk-exposures of our climate-relevant activities constitute another basis for a libertarian restriction with regard to these activities. First, mere risk-exposures are themselves impermissible if they restrict people's negative liberties in the sense that they hinder people from using their property as they are entitled to, or if they psychologically interfere with people who do not consent to such interference. Second, risks-exposures can also figure in the motivation behind people's lack of consent for the actions that produce them, as long as these actions cross their boundaries in other respects.

In chapter 6, I investigated the libertarian right to self-defense. I argued that people are allowed to perform some substantial actions of self-defense against the risk-exposures and wrongful climate-relevant activities of others. However, I claimed that libertarianism gives us permission only to act against threats, including innocent threats. Consequently, it gives us no permission to act defensively in ways that affect nonconsenting bystanders.

In chapter 7, I explored some intergenerational problems related to the moral standing of future generations and the historical emissions of past people. First we saw that the non-identity problem gave libertarianism – in virtue of its individualist person-affecting restriction – some difficulties with providing future generations a general moral protection. Nonetheless, I argued that libertarianism can provide moral protection at least for those future people whose identities are not altered by our present choices, or who prefer never having been born just because of the climate-unfriendly effects of our choices. I then went on to argue that since libertarianism is history-sensitive, it implies that the present rich have an obligation to correct for the illegitimate emissions of their ancestors, given that their inherited material wealth consists of resources that were produced by these illegitimate emissions.

In chapter 8, I investigated libertarianism's view on collective action and shared moral wrongdoing. I argued that individuals act impermissibly when they participate in collective activities – either via agreement, causal contribution or personal authorization – that cross people's boundaries without their consent. I argued that this is true even in cases of overdetermination, where the individual's participation is neither necessary nor sufficient for the outcome of the collective action.

In chapter 9, I discussed libertarianism's room for governmental climate responses. I argued that even if governments are neither obliged to take action against climate change, nor permitted to do so in any way that violates rights, libertarianism

nevertheless allows governments to undertake some substantial preventive responses to climate change – as a means both to hinder future rights- and proviso-violations, and to make corrections for the ones that have already occurred. Governments may also offer incentives to people for choosing climate-friendly options over climate-unfriendly ones.

The overall conclusion to draw from the examinations in this dissertation is that a great number of our climate-relevant activities amount to rights-violations and are thus impermissible according to libertarianism. This applies both to our emissions of greenhouse gases and our appropriations of climate-relevant resources. This suggests that libertarians should after all be open to quite robust measures for tackling climate change.

Concerning measures targeted at appropriations of climate-relevant resources specifically, it should be reemphasized that no mere *owning* of a resource crosses anyone else's boundaries. Therefore, ownership is never impermissible *per se*. For this reason, owning forests, land or fossil fuels is a permissible way of caring for the climate, as doing so morally prevents others from using them without one's permission. It is worth noting that this is actually one of the reasons why some organizations raise funds to buy rainforests for conservation.<sup>139</sup>

It is also worth noting that deforestation and burning fossil fuels differ in one interesting respect that I have neglected so far. When we discussed offsetting in chapter 3, we saw that there are essentially two kinds of activities giving rise to climate change: directly emitting acts, which lead to *more emissions* of greenhouse gases, and indirectly emitting acts, which lead to *less absorption* of greenhouse gases. Deforestation is an *indirectly* emitting activity, whereas burning fossil fuels is a *directly* emitting activity. From a libertarian perspective, this difference is morally relevant and critical to the judgment of these respective acts – even if they would make an equal contribution to climate change. For, although libertarianism implies a negative duty not to pollute the air (when doing so violates other people's rights), it gives us no positive duties to clean up the air for the mere benefit of others. So, according to libertarianism, we have no unconditional positive duty to see to it that our forests (or whatever resource we own) absorb greenhouse gases from the atmosphere. Rather, those who are legitimate owners of forests are free to do whatever they want with them (as long as they do not thereby violate other people's rights).

Even if *leaving the rainforest uncut* would be a kind-hearted thing to do to others – as it would help absorb greenhouse gases and thus supply others with clean air – libertarianism considers this act to be *supererogative* (i.e., more than morality requires). Given this difference between burning fossil fuels and deforestation, libertarianism can imply a duty not to extract (and by extension burn) oil, but not any similar duty not to cut down forests. (Of course, if present foresters are not the legitimate owners of their forests, they do not have the right to cut down the forest – if they would not thereby successfully appropriate it. Also, there might be contracted or rectificatory duties to preserve or plant new forests.) This stands in stark contrast

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<sup>139</sup> See, for instance, <http://www.rainforestfoundation.org/>. Retrieved on April 12, 2016.

to the prevailing view in international politics; that rainforest nations have stronger reasons for saving their forests for the sake of climate stability than oil nations have reasons for keeping their oil in the ground for that same purpose.

Interestingly, the general conclusion of this dissertation applies even if we would deny some of the particular ones. For instance, it would hold even if libertarianism would be wholly incapable of assigning moral standing to future generations. In fact, climate change is happening right now, and many people are experiencing infringements as we speak. Some of these infringements are temporally immediate consequences of *our* (i.e., present people's) climate-relevant activities. Furthermore, many children who are born today will be around for many years to come, and so they will experience some of the major effects of climate change. These people are both actual and present, as well as members of the future considered from a present point in time. The problem of climate change is thus not only intergenerational, but also *intragenerational*. Taking present people into account is hence sufficient for libertarianism to provide intuitively compelling climate action-guidance.

What is also interesting is that the general conclusion of this dissertation holds *even if* climate change would turn out not to have any catastrophic effects in the end (in case it has not had any such effects already). It also holds *even if* climate change would not be human induced at all. This is due to the basic features of libertarianism and the very nature of our climate-relevant activities: those activities violate people's rights in virtue of crossing their boundaries without their consent, whether or not these activities will actually lead to any climatic changes. Sure, my argument has taken the climatic impacts to constitute the motivation for people to dissent to these activities, but their dissent is valid irrespective of whether these impacts would actually occur (I say more on this in the final section).

It should be mentioned, moreover, that since I have here focused on a very limited scope regarding the aspects of the climate-relevant activities, it is possible that they would turn out even more problematic if we also considered the other aspects of such activities. There is at least one such aspect worth mentioning.

Libertarianism has traditionally been considered an anthropocentric (i.e., human-centered) moral theory. The rationale for libertarianism's anthropocentrism is that, *qua* autonomous beings, humans are supposed to be the only ones (together with, at most, a few other beings) who possess self-ownership. Humans are self-owners, whereas trees, insects and oceans are not. For this reason, non-human entities cannot have rights, and thus they have no direct moral standing. Following this tradition, I have throughout this dissertation considered only *human* considerations related to climate change: *human* death and suffering; infringements on the territories of *human* beings; risks against *humans*; compensations to *humans*; and so on. I have thus neglected the impact of climate change on non-humans. However, climate change not only affects humans, but also other inhabitants on Earth, as well as entire species and ecosystems. The moral relevance of this is something that libertarianism, at least in its classical form, cannot account for.

Sure, since luxury emissions cause infringements, those of us who care about other species or ecosystems can dissent to these emissions also for the sake of these



non-human individuals or ecosystems. But since at least some higher non-human animals are to some relevant extent autonomous – chimpanzees, elephants, dolphins, pigs, etc. – *they* should be considered self-owners too.<sup>140</sup> Hence *they* also have rights that we will violate when we perform actions that destroy our climate. If this were taken into consideration, the libertarian recommendations regarding climate change – as revealed in this dissertation – would be further strengthened.

If libertarians were to eagerly continue ignoring the moral standing of higher non-human animals, however, then their view would not be capable of explaining some of people's moral intuitions. This leads us to the final section.

## 10.2. Bottom Up: Implications for the Plausibility of Libertarianism

Given my mainly practical aim in this dissertation, I have not critically evaluated libertarianism's assumptions as such, but only investigated the implications for climate change given those assumptions. However, the results of the investigations carried out in the chapters above do have some implications concerning the plausibility of libertarian morality. This becomes clear once we consider the libertarian recommendations in light of people's pre-theoretical moral intuitions in relation to climate change: that climate change is a problem and should be avoided. I shall close the dissertation by a comment on this issue. In doing so, I should mention that I agree with Vallentyne (2009: 7) that "[t]he real test of a theory is its overall plausibility – both in the abstract and in application over a broad range of cases". Libertarianism's implications for climate change can, of course, not suffice to make an overall assessment of the view. However, the climate case certainly makes a contribution to an overall evaluation of libertarianism.

In chapter 3, I argued that libertarianism can explain the intuition that contributing to or exacerbating climate change is wrong. It is unclear, however, whether libertarianism gives the best explanation to this intuition. In fact, libertarianism's explanation as to why climate change is problematic hinges on contingent empirical facts. For instance, if everyone would become equally rich and produce equal amounts of luxury emissions, then this would mean that they all implicitly consent to the emissions of each other. If we assume that no explicit dissent could override this implicit consent, then no emissions would be wrong. This is the way it should be, according to libertarianism, since consenting adults should be free to do whatever they want. However, it appears to be in conflict with people's moral intuitions in the climate case, since climate change would then be an *even more* urgent problem than it is now.

In chapter 4, I argued that not all impermissible acts of appropriation are illegitimate. This might sound counter-intuitive. Suppose that I am building a house, and that I use only my own resources for this. Also suppose that I do not violate any relevant proviso. Suppose, however, that I do violate some people's rights *mean-*

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<sup>140</sup> See Regan (1983) for a famous argument along these lines.

while and by building the house – say, I run them over with my bulldozer. Does this rights-violation not then render my appropriation of that house illegitimate? This intuitively seems to be the case, at least if the rights-violations were conducted as a *necessary means* to the appropriation: If I could not even have gotten to the place where I build the house had I not violently forced people out of my way, then it would seem that my appropriation of that house is illegitimate. Even if libertarianism implies that such acts of appropriation are impermissible, it does not imply that the resulting possession is illegitimate in the sense that it fails to generate ownership. This is counter-intuitive, at least to me.

In chapter 5, we saw that libertarianism had some problems explaining people's intuitions concerning the wrongness of certain types of risks. This, one might think, is a shortcoming of libertarianism. It is worth noting, however, that even if libertarianism would be *less* capable of accounting for problems with mere risks than I have argued, similar problems concern other actualist moral theories as well. Utilitarianism, for example, has problems with explaining so-called *Jackson cases*, in which the agent has three options, A, B and C, where it is certain that only one of A or B maximizes utility (yielding say 100 utils) but it is uncertain which, and the other yields no utility (0 utils), and where C is certain to yield a very good outcome (say 99 utils). In this case, utilitarianism implies that it is wrong to choose C, which is the intuitively right choice given the risks of choosing either A or B.<sup>141</sup> And John Rawls's theory has problems with cases where one choice has a very miniscule probability of making the worst off just slightly worse off, but is certain to make everyone else much better off. Hence – in defense of libertarianism – the particular issue of risks is not a tiebreaker in the overall assessment of moral theories.

In chapter 6, we saw that the strict libertarian view on self-defense allows us to do anything against aggressors in order to avoid their aggressions. Consequently, it also allows us to torture and kill people in order to defend ourselves from their luxury emissions. This is counterintuitive, and thus something libertarians should try to work around.<sup>142</sup> One way for libertarians to accommodate this would be to defend a proportionality condition. By doing so, their principle of self-defense would no longer permit brutish defensive actions against miniscule infringements. However, for a proportionality condition to be more than *ad hoc* to libertarianism, libertarians would have to accept interdependency between the enforcement right (of defenders) and the immunity right (of aggressors). But, thereby, they would have to accept that defenders have no libertarian duty to spare or suspend an aggressor from any defensive interference that he, via his acts of aggression, has himself opened up for. In order to avoid this upshot, libertarians could defend a necessity condition, which requires that the defender never does more in self-defense than needed to avoid the threats. Although accepting the proportionality condition and the necessity condition might not sound counter-intuitive, it requires interpersonal utility comparisons in a way that is utterly counter-libertarian.

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<sup>141</sup> See Jackson (1991: 463).

<sup>142</sup> See Vallentyne (2011b) and (forthcoming) for some such attempts.

In chapter 7, I argued that although there is a way for libertarians to account for the moral considerability of people belonging to future generations, this considerability mainly applies to those people whose identities are not affected by the actions of present people. Since this is a mere unstable contingency, the moral considerability of future people depends on an equally unstable contingent fact. This, I surmise, is counter to people's (even libertarians') intuitions with regard to this matter. In line with other commentators on the non-identity problem for person-affecting views (such as libertarianism), I think that the moral standing of future people is at least more stable than that. If this cannot be explained by the libertarian position, then it poses a threat to the plausibility of that position.

In chapter 8, we saw that libertarianism can deal satisfyingly with some problems of overdetermination. What makes my shooting of a person wrong, even in a case where it is neither necessary nor sufficient for killing that person, is that my shooting crosses her boundaries without her consent. In this sense, libertarianism has an advantage in comparison to many of its rival theories (such as utilitarianism, which says that an action is right if, and only if, it maximizes utility): It is not sensible to so-called *futility arguments*. On the basis of such arguments, individuals are not required to do anything in response to climate change, since whatever they do they will not make a difference to the outcome. As we have seen in this dissertation, libertarianism tells us to eliminate our luxury emissions *even if* we by doing so would neither prevent climate change nor make any difference with respect to other people's well-being. Hence, I think, libertarianism coheres with people's intuitions on this matter. In this case, however, I suspect that people's intuitions are unreliable, as it seems clear that no one is obligated to do anything that makes no difference at all with respect to anyone's well-being. If I am right about this, libertarianism explains something that is not there to be explained.

In chapter 9, we saw that libertarianism permits governments to act for the sake of protecting people's rights. As we also saw, this means that libertarianism allows for some quite substantial governmental action for the sake of preventing climate change, although indirectly. This is, I presume, in line with most people's intuitions. However, libertarianism does *not require* that governments do anything in order to prevent climate change. In this way, libertarianism is quite undemanding. Although this undemandingness is in line with how libertarianism is typically understood, I presume that it is at odds with at least many people's intuitions concerning the climate case.

In connection to this, libertarians tend to argue against other moral theories – not least utilitarianism or other consequentialist views – on account of their presumed demandingness. What is interesting, though, is that we have in this dissertation seen that libertarianism is in many ways *more* demanding than it is typically thought to be (and, presumably, more so than other moral views).<sup>143</sup> If libertarians are right that this demandingness is a drawback for other moral theories, they should accept that it

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<sup>143</sup> See Lichtenberg (2010) for an argument that negative duties in general are often more demanding than positive duties.

is a drawback for their own theory as well (or show that there are relevant differences between these types of demands). Furthermore, libertarianism shares with utilitarianism a demanding *epistemological* problem, due to the heavy requirements it makes on our informational situation. In order to know how to act rightly, utilitarianism requires that the agent knows the full consequences of her acts. Libertarianism, on the other hand, requires that she knows both whether others consent to her actions, as well as the complete moral history of her holdings.

In relation to this, libertarianism comes with a serious internal puzzle. Either emissions of greenhouse gas molecules count as boundary-crossings, or they do not. If they do, as I have argued in this dissertation, the determinant feature at issue is also one of many other trivial activities. Hence, these other trivial activities will amount to boundary-crossings too. Intuitively, people should be free to breathe without respirators cleaning our exhalations, and so on, irrespective of whether others consent (explicitly or implicitly) to such actions. Given its sensitive notion of boundary-crossing, however, libertarianism cannot in principle assure this. In combination with the non-aggression principle, it implies that different kinds of dissent from crazy people make almost all our actions wrong. This implausibility could be circumvented by replacing the sensitive notion of boundary-crossing that applies to trivial actions with one that does not. This, however, would entail that many other actions would also not amount to boundary-crossings – actions that libertarians would certainly want to forbid. Moreover, libertarians would then encounter problems with motivating whichever such demarcations they propose, not least with respect to the self-ownership thesis. The only alternative way of circumventing the problem, it seems, would be to put some normative constraints on what people may consent or dissent to. However, the most obvious way of doing so would imply a move away from libertarianism considered as a monist or first-order moral theory. This leads us to the next and final comment.

In his book *Examined Life*, Nozick says: “The libertarian position I once propounded now seems to me seriously inadequate...” (1989: 286-7). Without entering the discussion concerning exactly what Nozick took to be the inadequacies of libertarianism, it seems to me that the libertarian non-aggression principle should at best be considered a *pro tanto* instead of an *all-things-considered* moral principle. In other words, libertarianism would thus constitute *one* among *several* basic principles in a pluralist moral theory. Peter Railton, for instance, claims that “...a plausible morality will involve at base more than a scheme of presocial, territorial individual rights and will make room for a number of notions – balancing, aggregation, and the like – more commonly associated with utilitarian than natural-rights theories” (1985: 220). A comparable idea was proposed even earlier by Tomas Nagel in his critical review of Nozick’s *Anarchy, State, and Utopia*:

The sources of morality are not simple but multiple; therefore its development in political theory will reflect that multiplicity. Rights limit the pursuit of worthwhile ends, but they can also sometimes be overridden if the ends are sufficiently important. The only way to make progress in understanding the nature of individ-

ual rights is to investigate their sources and their relations to each other and to the values on whose pursuit they set limits. (1975: 142)<sup>144</sup>

Perhaps reconsidering the libertarian theory as part of a pluralist moral position would circumvent some of the counterintuitive implications mentioned in this section. However, it would most certainly have complications of its own. In any case, a libertarian *pro tanto* principle within a pluralist moral framework would still give us *pro tanto* reasons – along the directions uncovered in this dissertation – against a vast number of climate-relevant activities.

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<sup>144</sup> Other similar suggestions are given by Arneson (2011) and Thomson (1990: Ch. 6).

# Svensk sammanfattning

I denna avhandling undersöker jag libertarianismens rekommendationer i klimatfrågan. Libertarianismen är, kortfattat, den moralteori enligt vilken handlingar är riktiga om och endast om de inte kränker någons rättigheter. Klimatfrågan är, kortfattat, den om vad vi konkret bör göra åt klimatförändringen.

Motivet till att fokusera på klimatförändringen är att den utgör en av de kanske största problem som mänskligheten någonsin stått inför. Motivet till att undersöka just libertarianismens rekommendationer är att dessa sällan diskuterats i klimatsammanhang. I de få fall de diskuterats har de antagits innebära att vi inte är moraliskt förpliktigade att vidta några som helst klimatförhindrande åtgärder. Ofta har den antagits rekommendera oss att "köra på som vanligt" utan några vidare klimatåtgärder.

Denna till synes passiva sida hos libertarianismen begripliggörs i samma veva som vi mer noggrant betraktar dess grunder. Som ovan nämndes fokuserar den på individers rättigheter, och så i en ganska snäv mening. Libertarianismen godtar nämligen endast *negativa* rättigheter – rättigheter att, i grova drag, *inte* bli fräntagen den fulla kontrollen över sin egendom. Det innebär att vi bara har skyldigheter att *inte* lägga oss i andras angelägenheter, och inga skyldigheter att t ex hjälpa andra i nöd (såtillvida vi inte själva försatt dem i denna nöd, vill säga). Vi har alltså inga skyldigheter att, utan vidare, förhindra någon klimatkatastrof!

En annan anledning till libertarianismens passivitet i klimatfrågan menar jag bero på dess kritiska syn på staten. Libertarianer anser nämligen att individer ska vara fullt fria att själva få bestämma över sina liv, och inte behöva bli påtvingad av staten att göra något som de inte vill. I och med att statliga ingripanden ofta anses vara de enda som kan kunna förhindra en klimatförändring, ter det sig sålunda orimligt att libertarianismen skulle kunna leverera några klimatförändringsförebyggande rekommendationer.

I strid med denna rådande uppfattning om libertarianismens rekommendationer i klimatfrågan, argumenterar jag i denna avhandling för att libertarianismen ger flera klimatvänliga rekommendationer. Den säger åt oss att drastiskt minska våra utsläpp, reducera våra uttag av klimatrelevanta naturresurser, och den ger staten tillåtelse att ingripa i klimatets tjänst, trots allt. Grunden för denna argumentation, och argumentationen som sådan, lyder som följer.

I kapitel 1 gör jag reda för den vetenskapliga och politiska bakgrunden till klimatförändringen. Jag utgår kort ifrån att klimatforskarna har rätt i att klimatförändringen i huvudsak beror på mänskliga aktiviteter (såsom utsläpp av växthusgaser och

skövling av regnskogen), och jag säger att klimatförändringen är ett problem för att dess effekter hotar mycket av det vi värdesätter (såsom mänsklig välfärd och överlevnad). Jag tydliggör också etikens relevans för både förståelsen och lösandet av klimatfrågan, och jag anger ovannämnda motiv till att tillämpa just libertarianismen på just denna fråga.

I kapitel 2 gör jag reda för de av libertarianismens karaktäristika som är relevanta för klimatfrågan. Jag formulerar dess så kallade icke-aggressionsprincip: En handling är riktig, tillika tillåten, om och endast om, och i kraft av att, den inte kränker någons rättigheter. Jag förklarar även några andra teser som återfinns inom libertariansk moralteori, som alla står nära förbundna med denna princip. Dessa handlar i korta drag om: självägarskap, extern egendom, negativa rättigheter, gränsöverträdelser, vikten av samtycke, kompensationens roll, möjliga rättfärdiganden och rektifikation. Jag förklarar att libertarianer traditionellt har betraktat en rättighetskränkning som en gränsöverträdelse utan samtycke, där det inte finns något som skulle kunna rättfärdiga en sådan överträdelse.

I kapitel 3 går jag över till att undersöka våra utsläpp av växthusgaser. Jag argumenterar för att även om våra individuella växthusgasutsläpp inte kan visas leda till någon märkbar skada på andra, så tränger de i flera avseenden in på andras territorier på sätt som bör betraktas som gränsöverträdelser. Jag bemöter några förslag på hur libertarianer skulle kunna förstärka sitt gränsöverträdelsebegrepp för att undkomma detta resultat. Jag menar dock att alla förslag är orimliga, och att libertarianer således bör hålla fast vid det svagare gränsöverträdelsebegreppet. De bör istället fokusera på samtyckets roll, först och främst, eftersom en gränsöverträdelse är problematisk endast om den sker utan samtycke.

I samtyckesfrågan argumenterar jag för att individer inte tenderar att misstycka till våra individuella utsläpp – just eftersom de har så obetydliga, endast omärkbara effekter. Däremot menar jag att individer tenderar att misstycka till även våra individuella utsläpp, på basis av de ackumulativa klimateffekter som dessa har. Jag argumenterar förvisso att vi alla samtycker *implicit* till vissa utsläppsmängder, i och med att vi alla släpper ut vissa mängder för att kunna överleva. Jag påpekar dock att inte alla släpper ut samma mängder, och att de som släpper ut i stora mängder (så kallade "lyxutsläpp") inte kan räkna med samtycke från de som endast släpper ut mindre (så kallade "behovsutsläpp"). Således utgör alla lyxutsläpp gränsöverträdelser utan samtycke.

Jag går sedan över till att undersöka huruvida libertarianismen kan tillåta lyxutsläpp på basis av andra, oberoende rättfärdigandegrunder. Jag argumenterar för att så inte är fallet: Vi är inte oförmögna att kunna reducera våra lyxutsläpp; vi är inte ovetandes om effekterna av våra lyxutsläpp; vi tvingas inte göra några lyxutsläpp i självförsvar eller för att undvika någon katastrof; och vi kan inte sägas kompensera andra på sätt som skulle tillåta att vi fortsätter med lyxutsläppen. Det enda alternativ som återstår till att helt eliminera våra lyxutsläpp är att *klimatkompensera* fullt ut för dessa. Detta kan göras antingen genom att få atmosfären att absorbera mer av de utsläpp vi orsakar (som t ex genom trädplantering) eller genom att få andra att släppa ut mindre (som t ex genom tekniköverföring). Visserligen kommer våra lyx-

utsläpp fortfarande göra intrång på andras territorier, men genom att klimatkompensera kan vi se till att neutralisera dess klimateffekter. Därigenom kan vi således undanröja andras grund att misstycka till dem, och sålunda utgör de inte längre några rättighetskränkningar. I och med att ytterst få lyxutsläppare idag klimatkompenserar sina utsläpp fullt ut står det dock klart att dessa utsläpp trots allt innebär rättighetskränkningar. Därmed är de också otillåtna enligt libertarianismens icke-aggressionsprincip.

I kapitel 4 undersöker jag huruvida de naturresurser som vi använder oss av i och med våra utsläppsaktiviteter – främst de fossila bränslena, skogarna och atmosfärens absorptionskapacitet – är *legitimt* förvärvade. Endast om de är legitimt förvärvade äger vi dem moraliskt, och endast då har vi rätt att exklusivt använda dem såsom vi gör i våra utsläppsaktiviteter. Libertarianismens förvärvsteori gör gällande att en extern resurs kan förvärfvas av en person genom att hon exempelvis skapar, får, köper, hittar, byter till sig, eller på något relevant sätt bebländar sitt arbete med resursen. Vad som krävs för att ett förvärv ska vara legitimt råder det dock lite olika meningar om. Alla libertarianer är ense om att ett förvärv är illegitimt om det kommer till stånd genom stöld eller lurendrejeri. De flesta menar vidare att libertarianismen också uppställer ett förbehåll för förvärv av tidigare oägda resurser. Dock skiljer sig libertarianer åt med avseende på hur de tolkar detta förbehåll.

Så kallade *vänsterlibertarianer* menar, i grova drag, att alla externa resurser initialt hör till människor gemensamt, och så i en egalitär mening. Detta tänks innebära att varje resursförvärv som går utöver vad förvärvaren själv behöver för att åtnjuta en välfärdsnivå i jämlikhet med andra, åläggs en plikt att betala kompensation till de som befinner sig under denna jämlikhetsnivå. Så kallade *högerlibertarianer* förnekar att jordens naturresurser initialt hör oss alla till gemensamt, och menar att vi var och en är i stort sett fria att roffa åt oss så mycket vi kan. Några följer visserligen Robert Nozick, och menar att vi får förvärva resurser endast om det inte försätter andra i en sämre situation än de skulle ha varit om vi inte tog dessa resurser. Andra högerlibertarianer är dock mer radikala, och menar att vi inte begränsas på något sätt annat än det som icke-aggressionsprincipen fastställer. I och med hur industrialismens utarmning av naturresurser är det intressant nog så, argumenterar jag, att alla versioner av libertarianismen erkänner att de naturresurser som utgör själva bränslet i våra klimatnegativa aktiviteter i mångt och mycket är illegitima. Jag argumenterar för att de underliggande förvärvshandlingarna därmed också är otillåtna, och att vi följaktligen erhåller klimatvänliga rekommendationer från libertarianismen även på denna punkt.

I kapitel 5 tar jag mig att en fråga om risker. De flesta av våra klimatrelevanta aktiviteter är nämligen förbundna med diverse risker. Våra uttag av naturresurser, exempelvis, leder ibland till oljeutsläpp eller gasläckor som får rättighetskränkningar till följd. Och till och med våra individuella utsläpp har visat sig kunna leda till allvarlig skada om de råkar få bågaren att rinna över klimatets trösklar, så att säga. Dock är det svårt för libertarianismen, som den så kallat *aktualistiska* moralteori den är, att förklara hur en risk som sådan kan vara otillåten. Jag argumenterar för att detta ändå kan göras på tre sätt. För det första implicerar libertarianismen att en riskabel handling är otillåten om den begränsar någons negativa frihet, i den mening



att denna någon inte kan utföra en handling som hon skulle ha kunnat utföra (och ha rätt att utföra) om den riskabla handlingen ej hade utförts. För det andra implicerar libertarianismen att en riskabel handling är otillåten om den utgör ett psykologiskt intrång på någon, i den mening att den riskabla handlingen på ett relevant sätt skrämmer personen ifråga, utan att personen samtyckt till detta. Gemensamt för dessa två redogörelser är att de gäller endast i de fall där risken i någon mening utgör en gränsöverträdelse på någons territorium. Jag menar dock vidare att libertarianismen, för det tredje, implicerar att en riskabel handling är otillåten även om risken som sådan inte utgör någon gränsöverträdelse, givet att handlingen som ger upphov till risken utgör en gränsöverträdelse i något annat avseende, och att risken utgör ett motiv för de drabbade att misstycka till denna handling.

I kapitel 6 diskuterar jag frågor om självförsvar i relation till klimatförändringarna. Självförsvarsfrågan är intressant med tanke både på de effekter som klimatförändringen kan få (eller kanske redan har fått), och på de olovliga intrång som vi i föregående kapitel sett att många av våra klimatrelevanta handlingar utgör. Jag argumenterar att libertarianismen ger var och en rätt att försvara sig mot intrång både från klimateffekter (såsom höjda havsnivåer, förhöjda temperaturer eller torka) och från andra agenter (såsom utsläppare eller resursförvärvare). Det ska visa sig att vi, intressant nog, tillåts att göra vadhelst som krävs för att undanröja dessa hot – såtillvida de skulle resultera i intrång på våra territorier om vi inte vidtog försvarsåtgärderna ifråga. Däremot är vi på inga sätt tillåtna att vidta försvarsåtgärder som i sig kränker fullt oskyldiga individer, vilka på inga sätt skulle göra intrång på vårt territorium om vi inte försvarade oss. Vi får dock försvara oss mot oskyldiga *hot*, givet att de just skulle medföra intrång om vi inte försvarade oss. Vi får också omdirigera redan befintliga hot, såtillvida vi inte genom en sådan omdirigering bryter den kausala länken mellan grundorsaken till hotet (t ex en utsläppare) och utfallet av hotet (d v s rättighetskränkningen).

I kapitel 7 diskuterar jag två *intergenerationella* frågor kopplade till klimatförändringen. Den ena har att göra med den moraliska statusen hos framtida generationer, den andra rör problemet med de historiska utsläpp som tidigare generationer redan gjort och som ligger kvar i atmosfären och bidrar till en klimatuppvärmning för oss här och nu. Vad gäller de framtida generationerna har libertarianismen svårt att tillerkänna dem något direkt moraliskt skydd. Detta beror på att libertarianismen (som vi sett) fokuserar på *individers* rättigheter, samtidigt som de individer som kommer att finnas i framtiden kommer att finnas just på grund av de handlingar vi utför här och nu. Med andra ord gäller att framtidens individer kommer att ha sin identitet beroende av våra nuvarande handlingsval. Således har de som då finns ingen grund för att eventuellt misstycka till de val vi nu gör, vilket också kan anses diskvalificera deras eventuella misstycke. Jag argumenterar dock att det räcker med att *någon* framtida individ inte får sin identitet förändrad på grund av våra val, för att dennes framtida misstycke ska vara giltigt. Detta räcker för att våra nuvarande utsläppshandlingar ska vara otillåtna också med hänsyn till denna framtida individ. Därutöver argumenterar jag att de framtida individer som hellre aldrig hade funnits

än att födas till en miserabel värld, tycks ha legitima invändningar mot de av våra handlingar som bidrar till att göra världen miserabel.

Vad gäller problemet med de historiska utsläppen argumenterar jag som följer. Vi har skäl att tro att en del av våra förfäders utsläpp utgjorde orättmätiga förvärvsanspråk på atmosfärens absorptionskapacitet, varför dessa utsläpp också är illegitima. Vidare gäller att illegitimitet hos en resurs följer med resursen: Om jag stjälar en bil och ger till dig är ditt innehav av bilen illegitimt, även om det inte var du som orsakade illegitimiteten i fråga. Dessutom är det så, argumenterar jag, att det är den aktuella innehavaren av en resurs som är ålagd skyldigheten att korrigera för den illegitimitet som den är förbunden med. Eftersom vi i den rika världen tenderar att inneha de resurser som producerades i och med de historiskt illegitima utsläppen, ålägger det alltså oss att korrigera för dessa utsläpp. Detta kan göras på i huvudsak två sätt: antingen genom att kompensera alla som drabbats av de illegitima resursuttagen eller genom att helt enkelt lämna tillbaks en motsvarande mängd av resurserna till allmänningen (för allas fortsatta användning). Kompensation är dock inte praktiskt möjligt i ett intergenerationellt sammanhang, eftersom de (flesta) drabbade inte längre finns att kompensera. Därför återstår endast resursåterlämning. Det enda rimliga sätt på vilket detta kan ske är genom åtgärder som reducerar växthusgaser från atmosfären så att dess absorptionskapacitet åter blir tillgänglig för andra att dra nytta av (vilket den inte är idag, då den är uttömd). Detta ger oss i den rika delen av världen ytterligare klimatrelevant plikter, vid sidan av plikterna att reducera våra egna lyxutsläpp och minska vår egen resursanvändning (som vi i tidigare kapitel sett att vi har).

I kapitel 8 tar jag mig an frågor kopplade till kollektivt handlande och delat ansvar. Jag argumenterar att libertarianismen medger tre sätt på vilka individer kan sägas göra fel om hon deltar i kollektiva aktiviteter som kränker rättigheter, och att libertarianismen således medger tre sätt på vilka en individ kan hållas ansvarig för sådana aktiviteter. För det första gäller att en individ är skyldig till ett kollektivt kränkande om hon, helt enkelt, går med på att hållas skyldig för ett sådant kränkande. Denna typ av ansvarsfördelning är vanlig inom strikt organiserade kollektiv – såsom bolagsstyrelser, politiska partier eller bostadsrättsföreningar. För det andra gäller att en individ är skyldig till ett kollektivt kränkande om hon kausalt bidrar till det kränkande utfallet av denna handling. Denna typ av ansvar är relevant även för oorganiserade grupper, som trots allt gör rättighetskränkande saker. För det tredje gäller att en individ är skyldig till ett kollektivt kränkande om hon implicit auktoriserar denna handling. Denna typ av skyldighet gäller exempelvis i de fall individer medvetet, och utan att invända, drar nytta av aktiviteter som innebär rättighetskränkningar – såsom de flesta konsumenter på de flesta marknader. Om agenten deltar i ett kollektivt handlande på något av dessa sätt, och om detta handlande leder till rättighetskränkningar, så axlar individen ett ansvar för denna kollektiva handling. Hon är följaktligen också förpliktad att vidta kompensationsåtgärder som rektifikation för de kränkningar som ägt rum till följd därav.

I kapitel 9 argumenterar jag för att libertarianismen tillåter stater (regeringar) att ingripa närhelst detta sker för att förhindra rättighetskränkningar. Eftersom vi redan

konstaterat att våra utsläpp av växthusgaser och uttag av naturresurser många gånger utgör rättighetskränkningar, är staten berättigad att gripa in för att förhindra oss från sådana utsläpp/uttag. Visserligen får staten inte ingripa på sätt som kränker oskyldiga individers rättigheter, eller tvinga någon att ändra moraliskt tillåtna beteenden, vilket begränsar statens handlingsutrymme. Däremot är staten tillåten att erbjuda *incitament* för att förmå dess medborgare att välja mer klimatvänliga alternativ.

Vidare tillåts staten också ingripa för att säkerställa att kompensation utbetalas i de fall rättighetskränkningar ägt rum, liksom för att se till att resurser återlämnas till dess rättmätige ägare (eller allmänningen) i de fall illegitima förvärv ägt rum. Dock kommer statens förmåga att så göra bestämmas av de resurser staten legitimt kan erhålla från dess invånare. Detta kommer också begränsa möjligheterna för staten att erbjuda dess invånare *incitament* för klimatvänliga val. Jag argumenterar att de medel för finansiering som står staten till förfogande är viss begränsad beskattning, frivilliga gåvor och – eventuellt – bötesförelägganden som straff vid felgöranden. Huruvida bestraffning i denna mening är kompatibel med libertarianismen är dock oklart.

I kapitel 10 sammanfattar jag avhandlingen. I det sista avsnittet diskuterar jag vad de slutsatser som dragits i tidigare kapitel skulle kunna avslöja om libertarianismens rimlighet. Även om libertarianismen visats kunna förklara många av de intuitioner vi har i klimatfrågan (som att klimatförändringen utgör ett problem och att vi bör göra något åt det), så menar jag att det är högst osäkert huruvida libertarianismen lyckas ge den *bästa* förklaringen till innehållet i dessa intuitioner.

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